COMMENT RESPONSE DOCUMENT (CRD) PART II TO NOTICE OF PROPOSED AMENDMENT (NPA) 2008-07

for a Commission Regulation amending Commission Regulation (EC) No 1702/2003, laying down Implementing Rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations

"ELA process" and "standard changes and repairs"

and

for introducing an Executive Director Decision on Certification Specifications and Acceptable Means of Compliance for Light Sport Aeroplanes (« CS-LSA »)

Explanatory Note

I. General

1. The purpose of the Notice of Proposed Amendment (NPA) 2008-07, dated 17 April 2008, was to:

   - amend Commission Regulation (EC) No 1702/2003[1]. As the amendments only affect the Annex (Part-21) of this Regulation, all references hereafter will be to Part-21;
   - introduce Certification Specifications and Acceptable Means of Compliance for Light Sport Aeroplanes (« CS-LSA »).

2. The scope of this rulemaking activity is outlined in ToR MDM.032 and is described in more detail in the NPA.

II. Consultation

3. NPA 2008-07 was published on the website (http://www.easa.europa.eu) on 18 April 2008.

   By the closing date of 18 July 2008, the European Aviation Safety Agency ('the Agency') had received 843 comments from 79 National Aviation Authorities, professional organisations and private companies.

III. CRD structured into Part I and Part II

4. Due to the complexity of the issue proposed in NPA 2008-07, the number of comments received to this proposal and the review group discussions, it was decided to create a Comment Response Document (CRD) in two parts. A CRD 2008-07 Part I was published on 15/07/2010 that provides an explanatory note, a comprehensive summary of the discussions, the conclusions, the resulting text proposal for the changes to Part-21 and the way forward.

5. **This document (CRD 2008-07 Part II) contains** all the comments, responses and the resulting text of the proposed new Certification Specifications **(« CS-LSA »)** in Annex I.

6. The new CS-LSA is based on a number of ASTM standards at a specified revision as documented in Subpart A of CS-LSA. The structure of the ASTM standard F2245 at revision 09 is used as the basis for this CS-LSA, including the numbering system.

7. The differences between the initial issue of CS-LSA and the current ASTM standard can be summarised as follow:

   The scope is extended to aeroplanes with retractable landing gear and variable pitch propeller.

   The scope is on the other hand restricted, and does not provide technical standards for banner towing or night VFR. These issues will be reviewed as part of rulemaking task VLA.008 in order to implement consistent requirements for CS-LSA and CS-VLA. Before that amendment becomes effective, special conditions will be applied.

   The technical standard differences between the ASTM standard and CS-LSA requirements are provided in a table specifying modified, deleted or new technical requirements.

   Note: Differences between the ASTM F2245 revision 09 and CS-LSA identified with grey shading are expected to be incorporated in the next revision of this ASTM standard.

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1 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) as last amended by Commission Regulation (EC) No 1194/2009 of 30 November 2009 (OJ L 321, 8.12.2009, p. 5).

When this revision next revision of ASTM F2245 is published before the initial issue of CS-LSA, it is the Agency's intention to remove the differences and refer directly to the new ASTM F2245 revision.

8. The initial issue of CS-LSA only contains AMC for fatigue and material properties. Other appropriate AMC is available in the AMC's of CS-VLA and CS-22, but this is currently not included because or referred to because that AMC is structured inconsistent with the ASTM standard numbering. At the same time AMC is also being developed by ASTM.

IV. Publication of the CRD Part II

9. All comments received have been acknowledged and incorporated into this Comment Response Document (CRD) with the responses of the Agency.

10. In responding to comments, a standard terminology has been applied to attest the Agency's acceptance of the comment. This terminology is as follows:

- **Accepted** – The comment is agreed by the Agency and any proposed amendment is wholly transferred to the revised text.
- **Partially accepted** – Either the comment is only agreed in part by the Agency, or the comment is agreed by the Agency but any proposed amendment is partially transferred to the revised text.
- **Noted** – The comment is acknowledged by the Agency but no change to the existing text is considered necessary.
- **Not accepted** – The comment or proposed amendment is not shared by the Agency.

11. The Executive Director Decision introducing the proposed new Certification Specifications (CS-LSA) will be issued at least two months after the publication of this CRD to allow for any possible reactions of stakeholders regarding possible misunderstandings of the comments received and answers provided.

12. Reactions to CRD 2008-07 **Part II** should be received by the Agency not later than **25 January 2011** and should be submitted using the Comment-Response Tool at http://hub.easa.europa.eu/crt.

V. CRD table of comments, responses and resulting text

(General Comments)	-

comment	*20* comment by: *Member State - Luxembourg* No particular observations on the NPA.
response	*Noted* Noted

comment	*21* comment by: *FFVV* On behalf of FFVV (French Gliding Union) FFVV appreciates the improvement for sport and light aviation, as ELA1 may aleviate requirements for certification and maintenance. However, for maintenance and airworthiness ther is still some improvements espected.
response	*Noted* The Agency has issued an Opinion proposing a Part-M with alleviations for general aviation.

comment	*29* comment by: *FAA* It appears EASA plans on re-issuing an ELA TC for any airplane that incorporates a revision to one of the ASTM standards into the design after initial certification. This could create a burden for EASA & the ELA manufacturers because of the pace of revision of the ASTM standards. This could also impact ELA safety. ASTM standards were used for the FAA LSA program because there are more easily modified and revised than FAA regulations & policy. The FAA allows an LSA manufacturer to incorporate new ASTM standards into a design by simply including them in a revised statement of compliance to the consensus standards. This process allows the latest safety enhancements in new standards to be easily incorporated into designs. EASA should consider changing the way they track applicable standards on an ELA, rather than treating them in the same manner as current Part 23 Amendment levels that are documented in a product's certification basis. Re-issuing a new TC and the fees associated with doing so will cause some manufacturers to decide not to update a design to the latest standards.
response	*Noted* Please see CRD Part I paragraph 10 for general intentions for harmonisation with the US. The EASA do not plan to re-issue the TC systematically. The TC holder can elect to comply with the latest ASTM standards and we can then modify the TC basis for the aircraft that would come out the production line after a certain date.

comment	*40* comment by: *John Tempest* I strongly support the introduction of the ELA concept and the introduction of QEs.

The advantages of the proximity of a specialist QE to the aircraft they oversee will be significant and is an important part of the ELA concept as presented in this NPA, where the requirements for DOA approval are relaxed.

I believe that it is vital that simplified regulation for continuing airworthiness follows on from the simplification of airworthiness regulation to ensure that the aircraft maintenance regime is compatible. In particular, that QEs are given delegated functions to oversee both the airworthiness and continuing airworthiness of ELAs, together with the maintenance and airworthiness review personnel who will oversee the aircraft, where the owner chooses to follow the QE route.

There should be a strong link between the airworthiness and the continuing airworthiness of these aircraft, and this can be done effectively by providing the QE's with the authority to oversee both activities. The QEs should adopt the role of the CAMO for ELA aircraft and should be able to approve maintenance and airworthiness review staff to maintain and review the continuing airworthiness of these machines. In this way, the QEs will be able to control the entire process, so avoiding any gaps between the QE regime and the Part 21/Part M regime.

Further, the financial viability of the QEs will be better assured if they are able to levy both continued airworthiness fees as well as airworthiness fees. Continuing airworthiness fees are a major income stream of current successful QEs, together with airworthiness fees and membership fees. If able to levy both airworthiness and continued airworthiness fees, and provided that the approval fees levied on the QEs by EASA and NAAs are not onerous, then the financial viability of the QEs should be assured, in that staff costs and insurance costs will be able to be covered.

response

Partially accepted

Please see CRD Part I paragraph 6.

comment

54 comment by: *Michael GREINER*

Das Dokument ist leider so schlecht strukturiert, daß es das Lesen erschwert. Beispielsweise ist es in Abschnitt A.IV nicht möglich zu erschließen, ..

- was noch zu „Overview of the proposals included in this NPA" gehört. Ist "ELA 1:" und "ELA 2:" untergeordnet? - oder warum wird die Information eine Seite später wieder wiederholt? Andererseits sind die Überschriften identisch formatiert wie „Overview [..]"
- warum " Creation of a system of standard modifications and standard repairs" kursiv geschrieben ist
- warum der Kern des neuen Systems, nämlich die Definition der unter ELA1 und ELA2 fallenden Luftfahrzeuge unter „Further considerations on the European Light Aircraft Process" beschrieben wird.

It is a pity, this document is structured so badly, that it makes understanding difficult. For example, in section A.IV it is not possible to determine, ..

- how much of the following text is covered by the caption „Overview of the proposals included in this NPA". Are the captions "ELA 1:" and "ELA 2:" subordinate to "Overview [..]", or not? They are formatted identical to „Overview [..]" But why are the definitions repeated one page later?
- why "Creation of a system of standard modifications and standard repairs" is written in italics

- why the core of the new system, i.e. the definition of ELA1 and ELA2 comes under „Further considerations on the European Light Aircraft Process"

response

Noted

It is agreed that the document is not easy to read. However the subject of this NPA is quite complex and is not easy to explain in a concise manner. For example, the concept of qualified entities is quite new and the complete policy on it is not yet available.

comment

68 comment by: *Michael GREINER*

0 Vorwort
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0. Vorwort
Der Autor dieses Kommentars arbeitet als Ingenieur seit 8 Jahren bei einem traditionsreichen Hersteller von Segelflugzeugen. In diesem Betrieb gibt es zwei, in Übergangsphasen drei, Ingenieure, die sich um alle Belange während der Lebenszeit aller Muster kümmern.
Der Kommentar betrifft daher auch nur den Bereich der Segelflugzeuge und Motorsegler. Der Kommentar beschäftigt sich mit der Erleichterung des *„regulative burden"*, nicht mit der Einführung der Klasse des LSA.

1. Zusammenfassung
Das NPA 2008-07 spricht das Problem eines zu großen „regulative burdens" im Luftsport an. Ich halte die Lösungen, die das NPA anbietet, jedoch für vollkommen unzureichend, teilweise nicht einmal zielführend. Durch die Vorschläge dieses NPA wird sich an dem *„regulatory burden"* im wesentlichen nichts ändern, nur der Namen der beteiligten Institutionen.

- Die Tabelle in Attachment II entspricht auch dem heutigen Zustand mit ADOAP
- Qualified Entities und Competent Authorities sind neue Institutionen, ihre Existenz ändert den formalen Ablauf nicht.
- Im Bereich Design and Production Approvals werden leichte Vereinfachungen in Aussicht gestellt, die aber die Situation nicht wesentlich verbessern werden (wie es z.B. ein simplified DOA tun würde)

- Es schießt über das Ziel hinaus, wenn grundsätzlich alle Teile für das eigene Segelflugzeug nachgebaut werden dürfen (Limiting the number of parts that need a Form 1). Dies wird zwar in der Realität nicht häufig vorkommen, da die Zeichnungen in der Regel nicht verfügbar sind, aber der Entwickler muß einen Einfluß nehmen können.

Wegen des Aufwandes an Arbeitszeit, an Gebühren und wegen der Tatsache, daß man den Prozeß über Monate nicht abschließen kann, werden auch mit dieser NPA kleine Verbesserungen oder Korrekturen einfach nicht durchgeführt werden.

Zur Lösung ist notwendig, dem Flugzeug-Halter, dem LTB und dem Hersteller wieder in verschiedenem Maße eigene Verantwortung zuzugestehen, um den bürokratischen Formalismius zu reduzieren. Dazu wäre es notwendig einen vereinfachten Entwicklungsbetrieb einzuführen, oder einen Betrieb nach ADOAP mit gewissen Privilegien auszustatten. Dies würde eine flexiblere Handhabung von kleinen Änderungen oder Reparaturen erlauben und die Anzahl hin- und hergeschickter Formulare reduzieren.

2. Ziele des NPA No 2008-07
MDM.032 hat zwei Aufgaben. Diese werden auf Seite 4 definiert:
Die erste Aufgabe, wird wie folgt beschrieben:
"In the past years there has been a decrease in the activity of "classical" leisure aviation and the development of the microlight 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 places too high a regulatory burden on designers and manufacturers of these types. The Agency created a rulemaking task MDM.032 in order to address these concerns."
Die zweite Aufgabe ist es, die Kategorie LSA zu diskutieren. Dieser Kommentar beschäftigt sich nur mit der ersten Aufgabe.

3 Hintergrund
Um zu bewerten, ob diese NPA ihr erstes Ziel erreicht, muß die Frage gestellt werden: Was genau ist der „regulative burden"?
Zuerst muß man sich klarmachen, wie fundamental die Einführung des EASA-Systems das *Konzept* des Segelflug-Sports umgestellt hat.
Es geht nicht um die allgemeine Situation, sondern tatsächlich um Zulassung, Reparaturen und Änderungen, und um das was in diesen Bereichen den Beteiligten an Kompetenz und Verantwortlichkeit zugestanden ist – also darum worum es in dieser NPA geht.

Wo kommt die Segelfliegerei her? In jedem europäischen Land herrschten vor der EASA eigene Regeln. Aber gemeinsam ist, daß z.B. vor 40 Jahren der Amateurbau noch genauso üblich war wie die industrielle Herstellung. Die Kompetenz, z.B. einen Schaden zu reparieren, wurde innerhalb der Segelfluggemeinde vermittelt. Luftämter dienten als Zulassungsbehörde für Muster, überwachten das Geschehen eher gesamtheitlich, oder gaben diese Aufgabe sogar an Luftsportverbände ab. Natürlich hat sich auch an diesen Verhältnissen über die Jahre einiges geändert, aber dem Segelflugpiloten wurde immer ein gewisser technischer Hintergrund vermittelt, und sowohl Pilot, als auch Werkstattpersonal, als auch den Entwicklern wurde in verschiedenem Maße Kompetenz zugetraut und Verantwortung übertragen.
Das EASA-System orientiert sich an der kommerziellen Luftfahrt. Hier wird eine gewaltige Anzahl *passiver* Passagiere in hochkomplexen Luftfahrzeugen gegen Entgelt transportiert. Auch führen diese Flüge besonders bei An- und Abflug

regelmäßig über dichtest bebautes Gebiet und die verwendeten Luftfahrzeuge haben ein gewaltiges Zerstörungspotential. Passagiere und Unbeteiligte erwarten einen größtmöglichen Schutz vor Fehlkonstruktionen und Fahrlässigkeit. Dieses System wird nun auf den Luft*sport* angewendet.

Es ist nun verboten,
- daß Halter eines Segelflugzeugs ein Zubehör einbaut
- daß ein LTB eine Reparatur durchführt
- daß ein Hersteller (de facto, weil ADOAP) eine Zeichnung ändert

wenn nicht vorher eine Genehmigung der EASA vorliegt. Der formale Aufwand und die EASA-Gebühren sind dabei so groß, wie für einen Major Change. *Das ist der alltägliche „regulative burden" im Zulassungsbereich von Segellugzeugen.*

Um anhand von drei Beispielen ins Detail zu gehen:

a) Für die genannten Fälle ist die Kaskade zu befolgen:
- Halter / LTB wendet sich an Hersteller
- Hersteller setzt Dokumente für einen Minor Change auf und sendet sie an die EASA
- EASA intern sind mehr als eine Abteilungen zu durchlaufen oder es geht weiter an externe Stellen (z.B. LBA)
- Vom LBA wieder an die EASA
- Von EASA an Hersteller
- Hersteller setzt Minor Change in etwas um, was die Informationen enthält, die der Halter /LTB benötigt (Technische Mitteilung) und veröffentlicht dieses.

Dabei geht es u.U. mehrfach innerhalb des Systems hin und her, da die Abteilungen, die die Aufgaben verteilen, naturgemäß keinen tiefen Einblick in die Sache haben.

b) Vor der Einführung der EASA hat man bei Anfragen aus dem außereuropäischen Ausland (z.B. Australien, USA), die eigenen Maßstäbe anwenden können. Heute fragt man zuerst, nach den in dem betreffenden Land geltenden Regeln, da sie unbürokratischer sind (z.B. Field Approval), bevor man eine Lösung entwickelt.

c) Die Aufgabe, jede Reparatur zuzulassen, ist bei der bestehenden Anzahl an Segelflugzeugen nicht zu bewältigen. Daher mußten für täglich auftretenden Fälle allgemeingültige Dokumente zugelassen werden, die allgemein Reparaturen oder den Einbau von Zubehör regeln und erlauben. Die Möglichkeiten des EASA-Systems werden dazu verwenden, den Zustand vor der EASA wieder herzustellen. Während allerdings früher der Ausführende sich seiner Verantwortung bewußt sein mußte, ist die Verantwortlichkeit heute diffus und verliert sich in genannten Dokumenten, die nur Allgemeines deklarieren können. (Ähnlicher formalistischer Humbug spielt sich bei den Instandhaltungsprogrammen ab).

Die Erkenntnis, daß ein zu schwerer „*regulative burden*" existiert kann also nur unterstützt werden. Liefert das NPA 2008-07 eine Lösung?

4 Bewertung der im NPA vorgeschlagenen Maßnahmen

4.1 Qualified Entities

"The Agency will use such QE in the certification process when it will be found to improve the overall efficiency of the process and because it could increase the proximity with applicants [..]*"* (Seite 8)

Warum es die Gesamteffizienz verbessern sollte, wenn eine weitere Instanz eingeschaltet wird, ist nicht dargestellt. Es ist auch kein Grund erkennbar, daß der „regulatory burden" durch die QE gemindert werden könnte. Im Gegenteil, wenn die Zulassung durch die EASA betreut wird, wird das Technical Visa durch

eine Person erarbeitet und die Zulassungsurkunde evtl. durch deren Vorgesetzten unterschrieben. Durch eine Qualified Entity wird das notwendige Hin- und Her von Formularen und Dokumenten vergrößert. Allein die Kosten für die Zulassung als QE müssen erwirtschaftet werden und es gibt nur eine Gruppe, die die EASA und Ihre privatwirtschaftlichen Anhängsel finanziert: das sind die Kunden der EASA.

Trotz allem Bemühen, wird es Unterschiede geben in den Maßstäben, die die verschiedenen QE anlegen – insbesondere wenn sie untereinander im Wettbewerb um die Gunst der entwickelnden Betriebe stehen. Dies ist bereits heute aus anderen, ähnlichen Systemen bekannt.

Eine zentrale Akkumulation von Erfahrung findet nicht mehr statt. Diese könnte eventuell verhindern, daß sich auf Kosten der Sicherheit Fehler bei Projekten verschiedener Firmen wiederholen. In seiner Funktion als Zulassungsbehörde hat das Luftfahrtbundesamt in Deutschland jede Firma diskret betreut. Es hätte aber sicher niemals wissentlich ein Projekt in einer Form weiterlaufen lassen, wenn es aus anderen Projekten gewußt hätten, daß so die Sicherheit gefährden wäre.

4.2 Competent Authority
Dieses Konzept scheint das Zusammenspiels zwischen der EASA und den nationalen Behörden der Länder flexibler zu machen.
Es wird nicht klar, wie dies mit den Zielen dieses NPA zu tun hat.

4.3 ELA1 who does what
Aus der Perspektive des Entwicklers (DO) ändert sich, daß er zur Beginn einer Entwicklung anstelle eines DOA oder ADOAP mit einem zugelassenen *„certification programme“* auskommt. Das erspart ihm vorläufig, ein ADOAP-Handbuch zu verfassen und zuzulassen. Alles weitere bürokratische Hin- und Her ändert sich nicht.

Entsprechend dem Attachment 2 ist dem DO nur zugeordnet:
- Establishment of certification basis
- Statements of Compliance
- Establishment of flight conditions for permit to fly
- In-service monitoring
- Recommendation for issue of mandatory continuing airworthiness information
- Response to safety recommendations

Das ist bereits jetzt als ADOAP der Fall. Es ist nichts dazugekommen, was eine Erleichterung verspricht (Privilegien).

Zusätzlich kommt neu hinzu:
- Proposal for selecting QE or NAA

Auch neu gegenüber dem derzeitigen Stand ist, daß man es nicht mehr nur mit der EASA und NAA zu tun hat, sondern nun mit
- EASA
- Competent Authority (CA)
- NAA or Qualified Entity

Wobei im günstigsten Fall CA und NAA einfach identisch bleiben.

Dadurch ändert sich an dem „regulatory framework“ nichts, oder es wird höchstens komplizierter durch das Mehr an Mitspielern. Dadurch, daß getrennte funktionelle Einheiten, NAA/QE und EASA beteiligt sind, treten

zusätzliche, enervierende Zeitverluste auf, ganz abgesehen von dem doppelten Arbeitszeitaufwand, den letztlich der Kunde (DO) zu bezahlen hat. Es bleibt zwar weiterhin bei EASA Gebühren, diese sind allerdings keine Konstante. Zusätzlicher Zeitaufwand entsteht durch die „Notification of QE or NAA" der EASA. Eine Vereinfachung entsprechend der Zielvorgabe ist nicht ersichtlich.

In den Bereichen „Post TC Approvals" und „Individual Aircraft" ist eine Beteiligung des DO nicht mehr vorgesehen. Es ist unklar, ob das bedeutet, daß für den DO hier tatsächlich keine Funktion mehr vorgesehen ist (er ist ja weder DOA, noch ADOAP), oder daß die entsprechenden Punkte „Establishment of certification basis", „Statements of Compliance", „Establishment of flight conditions for permit to fly" nur der Einfachheit halber herausgelassen wurden. Eine Klärung diesbezüglich wäre hilfreich.

Unabhängig davon verhält es sich nach dem Entwürfen aber weiterhin genauso wie unter ADOAP: Änderungen darf nur das NAA oder QE klassifizieren. Kleine Änderungen dürfen nicht ohne Mitwirkung der NAA/QE und EASA durchgeführt werden. Wegen des Aufwandes an Arbeitszeit, an Gebühren und wegen der Tatsache, daß man den Prozeß über Monate nicht abschließen kann, wird das DO kleine Verbesserungen oder Korrekturen auch weiterhin einfach nicht durchführen.

4.4 Design and Production Approvals
Im NPA steht auf Seite 9:
"ELA 1: Approval of certification programme by the Agency in lieu of DOA or Alternative Procedures (AP) to DOA although the applicant may elect to have a higher design approval."
Wie soll das Muster betreut werden, wenn weder ein DOA noch ein ADOAP vorliegt? Wird es nicht früher oder später wieder formale Gründe geben, die wenigstens ein ADOAP notwendig machen? Eine Unselbstständigkeit in den Händen eines QE oder NAA, wie sie auch im Attachment 2 unter „Post TC approvals" angedeutet wird, ist jedenfalls inakzeptabel.

"Production Organisation Approvals (POA) will be handled as at present except that a simplified process is introduced for ELA. More specifically the requirement for a quality system is to be replaced by a requirement for organisational reviews." (Seite 9)
Für das POA kann dadurch ein Vorteil entstehen. Es kommt auf die Umsetzung an.

"Production Organisation for ELA 1 will have the privilege to maintain the products they have manufactured and to issue the corresponding release into service." (Seite 9)
Ein guter Ansatz. In der Vor-EASA-Zeit hätte niemand daran gezweifelt, daß ein Hersteller eines nicht-komplexen Luftfahrzeuges, wie etwa eines Segelflugzeugs, nicht auch in der Lage ist, sein Produkt zu warten.

Zu den Ausführungen zum „Combined DOA/POA" fällt auf: Das NPA stellt eine günstige Lösung auf Kosten Dritter in Aussicht, die dazu noch nicht gefragt wurden. Gleichzeitig wird ein entsprechender Gebührenverzicht von eigener Seite a priori ausgeschlossen.
Trotzdem könnte das Combined DOA/POA erstrebenswert und sinnvoll sein. Solange es aber keine belastbaren Vereinbarungen mit den nationalen Behörden gibt, wäre es voreilig, von einer Erleichterung des *„regulatory burden"* zu sprechen.

4.5 Limiting the number of parts that need a Form 1

Es gibt zwei Gründe, über die Notwendigkeit eines Form 1 nachzudenken:

1. Manche Prüfer fühlen sich so unter Druck, daß sie ein Form 1 für Standardteile wie Griffschalen, Zündkerzen oder Schrauben verlangen. Das ist Unsinn und verteuert Kleinteile unnötig.
2. Das „Form 1" ist der Beleg, daß es sich um ein Originalteil handelt. Aufgrund der sehr direkten Vertriebsstrukturen bei Segelflugzeugteilen (Bestellung direkt beim Hersteller, oder seinem Vertreter im Ausland) scheint die Gefahr, daß jemandem *unwissentlich* an ein gefälschtes Teil gerät, recht klein.

Aber das NPA ließt sich aber so, als bräuchte ein Teil, für das kein Form 1 mehr nötig ist, auch kein Originalteil mehr zu sein. Das hieße, das Kind mit dem Bade auszuschütten.

Ist dieses nur für Flugzeuge angedacht, die tatsächlich mit dem ELA1/2 Prozeß entwickelt wurden? Oder sollte dies für alle Flugzeuge gelten, die in die Definition von ELA1/2 passen?

Im letzteren Fall würde das bedeuten, daß jedes Teil jedes Segelflugzeugs (ELA1!) zum Nachbau freigegeben wäre, sofern man noch einen Laminierplan von der letzten Reparatur besitzt. Das wäre die falsche Botschaft! Unter den Haltern von Segelflugzeugen herrscht bisher ein vernünftiger Respekt vor dem Know-How das in der Fertigung steckt und nicht immer von außen zu erkennen ist.

Man denke dabei zum Beispiel ans Flattern. Es ist viel Aufwand nötig, um Segelflugzeuge mit ihren großen Streckungen und hohen V_{DF} gegen Flattern zu schützen. Eine schlecht gebaute Klappe, die zwar den Angaben des Wartungshandbuchs entspricht (Rücklastigkeit und Masse) aber nicht erkennbare Defizite hat, wie eine falsche Verteilung des Massenballasts über der Spannweite, kann zu katastrophalen Folgen führen.

Deswegen halte ich Teile der Primärstruktur, der Sekundärstruktur (Steuerflächen!), der Steuerung, kritische Teile des Motors bei eigenstartfähigen Motorseglern und mindestens des Propellers und Motorträgers bei nicht eigenstartfähigen Segelflugzeugen für absolut tabu für den Nachbau außerhalb des Herstellerbetriebs – sofern es nicht mit diesem abgesprochen ist.
Es ist möglich, daß dies anders eingeschätzt wird, bei anderen Flugzeugkategorien oder vielleicht auch nur bei bestimmten Typen, die auf eine Low-Tech Bauweise ausgelegt sind. Aber dann ist es entweder schlecht, Flugzeuge verschiedener Entwurfsphilosophien und Bauvorschriften über einen Kamm zu scheren. Oder es muß für den DO noch möglich sein, den Nachbau von Teilen in bestimmten Bereichen zu erlauben oder zu verbieten, zum Beispiel über eine Technische Mitteilung oder einen Eintrag im Wartungshandbuch.

In den Fällen, in denen Flugzeuge für den Amateurbau zugelassen sind (einige alte Flugzeuge in Holz und Gemischtbauweise), wäre es dagegen abwegig ein Form 1 von jemandem zu verlangen, der sich ein Teil nachbaut.

4.6 Further Considerations on the introduction of standard changes and Standard repairs

Das ist bereits passiert, weil die Hersteller zum Handeln gezwungen waren. Die Frage ist, ob es sinnvoll ist, zu versuchen, dem Werker durch solche Dokumente „die Hand zu führen". Alle Besonderheiten können ohnehin nicht

erschlagen werden. Oder ob es nicht sinnvoller ist, die fachliche Fortbildungsarbeit, die in den Luftsportverbänden geleistet wird und die geprüfte Kompetenz der zertifizierten Prüfer entsprechend zu würdigen. Wenn darüber hinaus hilfreiche Rundbriefe mit fachlicher Information veröffentlicht werden, würde das die Reputation der EASA sicherlich gut tun.

4.7 Fees and Charges
Die EASA sollte vielleicht nicht nur ihre jährlichen Ausgaben auf die Firmen und Personen verteilen, die Musterzulassungen anstreben oder besitzen, sondern auch reflektieren, was dafür geboten wird. Beispielweise stellt sich die Frage, was der EASA an effektiver Arbeit durch eine existierende Musterzulassung eines Segelflugzeuges anfällt, da jede Änderung ohnehin extra bezahlt wird. Kleine Firmen, die Musterzulassungen aufrechterhalten, ohne selbst Neuflugzeuge zu bauen, werden hier zu einer Abgabe gezwungen, ohne regelmäßige Einkünfte in dem Bereich. Für die Unterschrift auf den „Flight Conditions" fallen um die 675€ an, obwohl alle Sachfragen, bereits mit anderen Stellen der Behörde geklärt sind. Es ist die Frage, warum eine dritte Abteilung noch ins Spiel kommen muß. Mit den Kosten für die Erstellung dieses Stück Papiers könnte man genausogut zwei Arbeitstage eines Ingenieurs in der eigenen Firma bezahlen. Dies weicht etwas von der NPA ab, soll aber nur auf das breite Spektrum der Probleme hinweisen und daran erinnern, daß die im NPA genannten Beträge keineswegs die einzigen sind, die im Zusammenhang mit einem Muster und seiner Entwicklung auftreten.

5 Impact Assessment
5.1 Safety
Die Analyse bezüglich der Sicherheits-Situation in der Allgemeinen Luftfahrt gibt Hoffnung, daß die EASA den Realitäten in Zukunft vielleicht wirklich Rechnung trägt.
Den Optimismus bezüglich Option 2 kann ich aber keineswegs teilen.
Wie bereits beschrieben, ist kaum eine Erleichterungen des *„regulative burden"* erkennbar. Ob mit oder ohne ELA1 bleibt der bürokratische und finanzielle Aufwand unverändert, eine Verbesserung am Muster zuzulassen – sei sie nun klein oder groß. Man läßt es einfach bleiben.

Angeblich weicht ELA1 ab von *„well proven certification principles and may have a negative impact on safety, if* [..]*"* (Seite 14). In der vorangestellten Erklärung heißt es jedoch: "[..] *their review tends to show that the major fatalities risks for General Aviation are loss of control and controlled flight into terrain and that the design related failure rate appears to be very low in all cases"* (dito).
Zum einen wurden bisher wohl weniger als 1 Prozent der Flugzeuge der Allgemeinen Luftfahrt unter dem EASA System zugelassen, welches ja auch erst seit fünf Jahren existiert. Daher ist es gewagt, von einem „well proven certification principles" zu sprechen, zumindest für die Belange des Segelflugs.
Zweitens ist das Vor-EASA-System der Zulassung von Segelflugzeugen von viel weitreichenderen Befugnissen für die Segelflugzeughersteller (ob DOA oder nicht) gekennzeichnet gewesen. Und in diesem liberaleren und wesentlich weniger bürokratisch durchprozessierten System (man denke an Attachment II) ist keineswegs von einem „impact on safety" zu spüren gewesen. (wie bereits zitiert: „[..] *design related failure rate appears to be very low in all cases*")

5.2 Economic
Auch hier kann ich den Optimismus nicht teilen:
ein DOA war auch bisher nicht für ein Flugzeug der ELA1 Definition nötig. Ein

ADOAP wird aber trotzdem auch weiterhin notwendig sein, um das Muster zu betreuen, Kundenwünschen entgegenzukommen und Verbesserungen einfließen zu lassen.
Leider wird ohne ein simplified DOA oder ein ADOAP mit Privilegien kein Unterschied zur jetzigen Situation auftreten. Kosten für EASA-Gebühren und Handling des formalen Hin- und Her bleiben identisch.

EASA Gebühren orientieren sich nicht an der tatsächlichen geleisteten Arbeit, sondern daran, daß sich die EASA selbst tragen muß. Die resultierende Höhe der Gebühren ist ein indirekter Hinweis darauf, daß man beim Aufstellen der Arbeitsprinzipien („Who does what") der EASA nicht auf die Kosten Rücksicht genommen hat, sondern aus dem Nichts ein theoretisch makelloses System aus der Taufe heben wollte. Weitere funktionelle Einheiten (QE) ins Leben zu rufen, die sich selbst finanzieren müssen, kann nicht im Interesse der Allgemeinen Luftfahrt sein.

6 Vorschläge für wirkliche Erleichterungen
Um wieder eine praktikable Arbeitsumgebung zu schaffen, ist es unabdingbar dem DO wieder die Möglichkeit zu geben, kleine Änderungen, mit geringem finanziellem, formalem Aufwand und in kurzer Zeit durchzuführen.

1. Dazu würde es gehören, dem DO die „Classification of Changes" und „Classification of repairs" zu erlauben
2. Eine der folgenden Möglichkeit um den Minor Change/Repair auch zügig umsetzen zu können:

- ein vereinfachter DOA oder ein ADOAP mit Privilegien (Selbstständiges Bearbeiten des Minor Change)
- Selbstständiges Bearbeiten des Minor Change mit dem vorläufigen Recht, diesen umzusetzen, und einer en bloc Zulassung der über einen Zeitraum (z.B. 6 Monate) gesammelten Minor Changes. (Dies gewährleistet noch eine gewisse Kontrolle und hat in einer solchen Form bereits einmal funktioniert.)
- eine Kategorie unterhalb des Minor Change, für den Privilegien erlaubt werden können

Um zu vermeiden, daß sich die EASA zu weit aus Ihrer Aufsichtspflicht gedrängt wird, wäre je nach der gewählten Option denkbar:

1. einen zugewiesenen EASA-Mitarbeiter formlos von den Vorgängen in Kenntnis zu setzen.
2. Erleichterungen an bestimmte Bedingungen zu knüpfen:

- Unauffällige Unfallstatistik
- Nachweisbare Erfahrung des DO
- Erfahrung der EASA über das Verhalten des DO in Zulassungsdingen

Dabei wäre ein gewisser „Bewährungszeitraum" für bestehende und neue Betriebe nichts ehrenrührendes.

Doppelte Formalien, wie das „Approval of flight conditions" sollten entfallen. Mit diesem Schritt, wird dem „Technical visa for Approval of flight conditions for permit to fly" nichts hinzugefügt. Es ist ein teurer und rein bürokratischer Akt. Es führt keine weitere Kontrollfunktion aus und erhöht die Sicherheit in keiner Hinsicht.

English Translation

0 Preface
1 Summary
2 Aims of this NPA
3 Background

0 Preface
The author of this comment has been working for eight years as an engineer with an established manufacturer of sailplanes. In this company there are two, in transition periods three, engineers, who have to take care for all concerns of the types during their lifetime.
The comment only applies to the area of sailplanes and powered sailplanes. The comment deals with the *"regulative burden"*, not with the introduction of the LSA class.

1 Summary
The NPA 2008-07 addresses the problem of a too heavy regulative burden in the area of initial airworthiness of airsport. But I consider the proposed measures insufficient, partially not even goal-oriented. The measures of this NPA will not relieve the regulative burden, but only change the name of the concerned institutions.

- The table of the Attachment II basicly describes what is already reality with ADOAP
- Qualified Entities and Competent Authorities are new institutions, but their existence does not effect the regulative burden or bureaucratic process.
- In the area of Desing and Production Approvals, small improvements are envisaged. But these will not improve the situation considerably (like for example a simplified DOA would do)
- It overshoots, when principally all parts for a sailplane may be produced by the owner (Limiting the number of parts that need a Form 1). This would not happen very often in reality, because the necessary drawings are usually not available, but there must be a possibility for the designer to decide what is permissible and what is not.

Due to the expense of worktime and EASA fees, and due to the fact, that processes cannot be closed for months, minor improvements and corrections will not be put into practice – neither now, nor with this NPA.
For reaching the aim, it is necessary to grant more responsibility in different degree to the airplane-operator, to the technical aviation repair station, and to the designer again – in order to reduce the bureaucratic workload. For this it also would be reasonable to introduce a simplified DOA or an ADOAP with certain privileges. This would allow a more flexible handling of Minor Changes and repairs and reduce the number of forms to be send back and forth.

2 Aims of this NPA
MDM.032 has two aims. These are defined on page 4:
The first aim is described as follows:

"In the past years there has been a decrease in the activity of "classical" leisure aviation and the development of the microlight 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 places too high a regulatory burden on designers and manufacturers of these types. The Agency created a rulemaking task MDM.032 in order to address these concerns."
The second aim is to discuss the introduction of the LSA category. This comment only handles the first aim.

3 Background
In order to evaluate, whether this NPA achieves its first aim, the questions must be answered: What exactly is the "*regulative burden*?
First one has to realize how fundamentally the introduction of the EASA-System has changed the *concept* of the sport of soaring.
We are not talking about the general situation, but in fact about initial airworthiness, repairs and modifications, and how much responsibility and competence is admitted to be owned by the involved – thus, what this NPA is about.

Where does soaring come? There have been different rules in every European country before EASA. But it is common, that 40 years ago, amateur building of gliders was as common as industrial production. The competence, e.g. to repair a damage was taught within the soaring community. Aviation authorities served as certification offices and cultivated a more collective overview, if they not even handed this task over to national gliding federations. Naturally, things changed over the years, but glider pilots have always been imparted a technical background. Pilots as well as workshop staff, as well as designers were admitted competence and granted responsibility, in different degrees.

The EASA-system is geared to the commercial aviation. Here, a enormous number of *passive* passengers pays for being transported in highly complex aircraft. These flights regularly lead over densely populated areas, especially during approach and after take-off, while the heavy aircraft have a large destructive potential. Passengers and third parties expect a large as possible protection against faulty designs and carelessness. This system is no adopted to air*sport*.

It is now prohibited,
- that the operator of a sailplane installs additional equipment
- that a certified aviation repair station repairs a damage
- that a manufacturer (de facto, because ADOAP) changes a drawing

if this had not been certified by EASA. The formal effort and the EASA-fees are as large as for a Major Change. *This is the daily „regulative burden" in the certification area of sailplanes and powered sailplanes.*

Three examples to give more details:
a) For the above mentioned cases, the following cascade must be followed:
- Operator / Repair station contacts Manufacturer
- Manufacturer draws documents for a Minor Change and sends them to EASA
- Internally in EASA more than one department has to be passed, or it is proceeded to an external institution (e.g. LBA)
- From LBA back to EASA
- From EASA back to Manufacturer
- Manufacturer draws a document that contains the information, which

are necessary for operator or repair station and publishes it.
Sometimes documents go forward and backward, because the departments, which distribute the tasks, naturally do not know very well about technical backgrounds.
b) Prior to the introduction of the EASA System, one has simply used the own standards, when answering requests from non-European countries (e.g. Australia, USA). Nowadays one asks for the rules first, which can be applied in the specific countries, because they are less bureaucratic (e.g. Field Approval), before starting to develop solutions.
c) With the existing number of gliders, the necessity to certify every repair cannot be accomplished. Therefore, wide-ranging documents had to be certified for the daily arising cases, generally allowing repairs and installation of equipment. The possibilities of the EASA-System are used to reconstitute the state before EASA. But while formerly the worker knew about his responsibility, the latter is now diffuse and loses itself in the mentioned documents, which can only declare general statements. (Similar formalistic humbug happens with the Maintenance programme).

The finding that a too heavy *„regulatory burden"* exists, can only be supported. Does NPA 2008-07 offer a solution?

4 Evaluation of the Measures proposed in this NPA
4.1 Qualified Entities
"The Agency will use such QE in the certification process when it will be found to improve the overall efficiency of the process and because it could increase the proximity with applicants [..]*"* (page 8)
It is not explained, why introducing a new institution should improve the overall efficiency. Neither a reason is cognisable, that QE could relieve the „regulatory burden". In the contrary: If EASA sees through the certification, the Technical Visa might be prepared by one person and the Type Certificate might be signed by her/his supervisor. With a Qualifed Entity (QE) the seesaw of forms and documents is increased. The difference is, that the expenses for the approval of the QE must be earned. At the end of the day, General Aviation will have to pay for it.

Despite all efforts, there will be differences in the standards, which will be applied by the different QE, especially when the QEs have to compete for the favor of the design organisations (DO). This is known from other, but similar systems nowadays.

There is no central accumulation of experience. This could prevent faults that endanger safety from recurring in projects of different companies. In its function as certification authority the German LBA has overseen every company very discreetly. But it sure would not have let continue a project, if they had known from their experience with other projects that a critical flaw is inherent.

4.2 Competent Authority
This concept seems to make the cooperation between EASA and national authorities more flexible.
It cannot be seen, what this has to do with the aims of this NPA.

4.3 ELA who does what
From the perspective of the designer (DO) there is one change: an approved *„certification programme"* will do instead of a DOA or ADOAP. This will preliminarily spare him to write an ADOAP manual. All the rest, all the

bureaucratic processes stay the same.

According to Attachment II the DO may do the following, but decide on nothing:

- Establishment of certification basis
- Statements of Compliance
- Establishment of flight conditions for permit to fly
- In-service monitoring
- Recommendation for issue of mandatory continuing airworthiness information
- Response to safety recommendations

This is exactly the same as today, when acting under ADOAP rules. Nothing was added, which could simplify processes (privileges).

One task for the DO was added:

- Proposal for selecting QE or NAA

Compared to nowadays, it was also added that DO not only has to deal with EASA and NAA but with:

- EASA
- Competent Authority (CA)
- NAA or Qualified Entity

In the best case, NAA and CA simply stay identical

Therefore, the „regulatory framework" will not change, or will become slightly more complex (due to the increased number of involved parties). Because there are separate institutions involved (NAA/QE and EASA) additional, enervating delays have to be expected. Organisational work will be done twice, which finally will have to be paid by the customer (DO). Naturally there will only be EASA fees, but these are by far not constant. Additional delay will originate with the „Notification of QE or NAA" by EASA. A relief according to the aim of this NPA cannot be found.

In the section of „Post TC Approvals" and „Individual Aircraft" there is no participation of the DO indicated any more (page 21). It is unclear, whether there is really no function intended for the DO any more (since he has neither DOA nor ADOAP), or the corresponding points „Establishment of certification basis", „Statements of Compliance", „Establishment of flight conditions for permit to fly" were just left away for simplicity. A clarification would be helpful.

To recapitulate: According to Attachment II everything goes on like before under ADOAP: Only NAA or QE may classify changes. Even the smallest changes may not be performed without NAA/QE and EASA. Because of the expenses of labour time and fees, and because of the fact, that one is unable to close the file for months, small improvements and corrections will still not be performed after MDM 032.

4.4 Design and Production Approvals

"ELA 1: Approval of certification programme by the Agency in lieu of DOA or Alternative Procedures (AP) to DOA although the applicant may elect to have a higher design approval." (page 9)

How is the certified type supposed to be cared for? Will there not be formal reasons again, which make at least ADOAP necessary? A dependency from a QE or NAA as it is indicated in Attachment II under „Post TC approvals" is not acceptable.

"Production Organisation Approvals (POA) will be handled as at present except that a simplified process is introduced for ELA. More specifically the requirement for a quality system is to be replaced by a requirement for organisational reviews." (page 9)
For the POA this might be advantageous. It depends on the implementation.

"Production Organisation for ELA 1 will have the privilege to maintain the products they have manufactured and to issue the corresponding release into service." (Seite 9)
This is a sensible approach. In the time before EASA, nobody would have doubted, that the manufacturer of a non-complex airplanes, such as a sailplane, is able to maintain his products.
In the presentation of the Combined DOA/POA it strikes, that a low-priced solution is presented at the expenses of third parties that have not yet been asked for their opinion about that. At the same time, a corresponding relinquishment of the own fee is ruled out a priori.
Nevertheless a combined DOA/POA can be desirable and sensible. But as long as there are no serious agreements with the national authorities, it would be overhasty to see a relief of the regulative burden here.

4.5 Limiting the number of parts that need a Form 1
There are two reasons to reconsider the necessity for a form 1

1. Some inspectors feel such a pressure, that they demand a form 1 even for standard parts, like the rubber part of a handgrip, common spark plugs or screws. This is nonsense and makes small parts unnecessarily expensive.
2. The "Form 1" indicates an original part. Due to the usually very direct distribution channels (parts are ordered direct at the manufacturer or his foreign representatives) the danger appears to be very low, that somebody *unwittingly* uses a forged part.

But the NPA reads, as if a part, for which no form 1 is necessary any more, would also not necessarily have to be an Original part any more. This seems to be like throwing the baby out with the bath water.

Is this intended only for airplanes, which were actually certified under the ELA1/2 process? Or is this supposed to be valid for all airplanes, which fit into the definitions of ELA1/2?

In the latter case, this would mean, that every part of every sailplane (ELA1!) would be approved for owner production, as long as one has still a laminating scheme from the last repair job. *This is not a good message!* Among the operators of gliders, there is still a sensible respect for the know-how of the industrial production, and which cannot always be seen from the outside.

Think of flutter. Large efforts are made to protect sailplanes with their large aspect ratio and high V_{DF} against flutter. A badly built control surface, which complies with the information in the maintenance manual (static moment, and mass), but which has invisible deficiencies, such as a wrong distribution of the mass balance along the span, can lead to catastrophic consequences.

Therefore, I consider parts of the primary structure, of the secondary structure (control surfaces!), of the control system, critical parts of the power-plant of self-launching sailplanes, and at least the propeller and the engine bearer of self-sustaining powered sailplanes as absolutely out of bounds of owner production – at least as long as it is not agreed with the manufacturer.
It might be, that for other categories of airplanes, or maybe only for individual

types, which on purpose have a low-tech design, this is considered differently. But then it is either bad to lump together airplanes of different design philosophies and certification standards. Or it must be possible for the DO to allow or prohibit owner production in certain areas, e.g. with a Technical Note or Maintenance Manual entry.

In those cases, in which gliders were certified for amateur production (some older types in wooden or mixed construction), it would be absurd, to demand a Form 1 from somebody who is producing a part for his glider or the glider of his club.

4.6 Further Considerations on the introduction of standard changes and Standard repairs

This has already happened, because the manufacturers were forced to act. The question is, whether it makes sense, to try to lead the worker's hand with such documents. It is not possible to refer to all particularities. Maybe it would make more sense to recognize the technical training, which is accomplished in the gliding federations, as well as the examined competence of the certified inspectors. Beyond that, if helpful circulars would be published with technical background information, this could very well help EASA achieve a better reputation.

4.7 Fees and Charges

Maybe EASA should not only distribute her yearly expenses to the companies and persons, that seek or hold a type certificate, but maybe also think about what is offered in return. For example one could question, what kind of expenses EASA has because of an existing type certificate of a sailplane, since every change has to be paid extra anyway. Small companies, which hold old type certificates without building new gliders, are forced to a contribution, without having a regular income from this sector. For the signature on the approval of flight conditions a fee of about 675€ become due, although all factual issues have already been clarified with other departments. Why must this further department be involved at all? With the charge for the creation of this piece of paper two whole working days of an engineer in the own company could be paid. This deviates a bit from the NPA, but it shall indicate the broad spectrum of problems, and remind, that the fees noted in the NPA are by no means the only ones, which become due during the certification process.

5 Impact Assessment

5.1 Safety

The analysis concerning the safety in General Aviation gives hope, that EASA will in future find a system that fits for airsport.

But I cannot share the optimism concerning option 2. As described before, a practical relieve of the regulative burden is almost not noticeable. With or without ELA1 the bureaucratic and financial effort to certify an improvement for an existing type is the same. One just lets it be.

It is said that "*ELA 1 departs from well proven certification principles and may have a negative impact on safety, if* [..]" (page 14). Whereas it is said two paragraphs before, that "[..] *their review tends to show that the major fatalities risks for General Aviation are loss of control and controlled flight into terrain and that the design related failure rate appears to be very low in all cases*" (page 14).

But first, probably less than 1 Percent of the airplanes of the General Aviation have been certified under EASA regulations by now. A system which has only been existing for five years. Therefore it is daring, to speak of „well proven

certification principles", at least in respect of sailplanes.
Second, the pre-EASA-system of certification of sailplanes departed much further from these principles, giving the manufacturers more privileges (with DOA or not). In this more liberal and less process-wise strictly organized system, there was by no way a negative impact on safety (remember: „[..] *design related failure rate appears to be very low in all cases*")

5.2 Economic
Neither I can share the optimism here.
A DOA has already not been necessary for an airplane that fits into ELA1 definition. An ADOAP might still be necessary to care for a certified type even with ELA1, to meet customer special wishes, and to implement improvements.
Unfortunately, without a simplified DOA or an ADOAP with privileges, there will not be a difference to today's situation. Costs for EASA fees and for the bureaucratic seesaw stay the same.

EASA fees are not geared to the actual work done by the agency for a project, but have to finance the whole budget. The size of the resulting fees might be a indirect hint, that while setting up the well proven certification principles, the size of the organisation was not a topic. Setting up further functional units, such as Qualified Entities, cannot be for the economic benefit of the manufacturers of GA aeroplanes.

6 Requirements for a real Relief of the "regulatory burden"
To create again a viable working environment for a DO, it is indispensable to make it possible for the DO to implement Minor Changes/Repairs with small financial and bureaucratic expense and in short time. This would make it necessary to allow the DO

1. to classify changes/repairs.
2. to implement a Minor Change/Repair efficiently, maybe in one of the following ways:

- Simplified DOA or ADOAP with privileges (Autonomous approval)
- Autonomous internal approval with the preliminary right to implement the Minor Change/Repair. Retroactive EASA approval en bloc of the Minor Changes/Repairs, which accumulated over a certain period (e.g. 6 months). This still offers some supervision, and a solution like this hand once already been installed and had worked.
- A new category below the Minor Change, for which privileges can be granted

If EASA feels, that the duty of supervision does not allow such liberal handling without further argumentation, it would be imaginable:

1. that DO has to inform an assigned EASA person formlessly of every activity.
2. to tie such relieves to certain conditions:

- inconspicuous accident statistics
- verifiable experience of the DO
- experience of EASA with the DO

For the latter it would be understandable, that a certain period of probation for existing and new companies would be necessary.
Double formalisms like the „Approval of flight conditions" should be omitted. With this step nothing is added to the „Technical visa for Approval of flight conditions for permit to fly". It is just an expensive and purely bureaucratic act. It contains no further controlling function and increases safety in no way.

response | *Noted*

NOTE:
This specific comment is made to various parts of the NPA.
In order to limit the size of the CRD document the full text is reflected here only once. In other sections of the CRD a reference to this comment/response will be shown.

0 Preface
Noted.
1 Summary
Partially agreed; please see the answer below.

2 Aims of this NPA
Noted.
3 Background
Noted. The analysis made by the commentator is shared and this is the reason why the working group MDM.032 was set up and the relevant NPAs were produced**.** This NPA is one of them.
4 Evaluation of the Measures proposed in this NPA
4.1 Qualified Entities
Please see CRD Part I paragraph 6.
4.2 Competent Authority:
This paragraph was introduced to clarify the difference between a competent authority and a qualified entity. This is a frequently asked question. We took also the opportunity to highlight that a Member State may nominate more than one competent authority provided there is no overlap of responsibilities. It is agreed that this explanation does not have a direct bearing on the proposals included in the NPA.
4.3 ELA who does what
The purpose of the tables was to give an idea how the system could work in practice. It is agreed that the main simplification is the alleviation from the AP-DOA. The introduction of Qualified Entities does not introduce a new layer as it would replace the reliance on NAA technical visa for design activities. It is hoped that QE will improve proximity to the applicant.
However, as explained above, the Management Board has not yet adopted the policy for use of Qualified Entities.
4.4 Design and Production Approvals
Approvals of changes and repairs would be done by EASA based on a technicial visa from a Qualified Entity. The TC holder would have to discharge its responsibilities in accordance with 21A.44. This does not require formally an APDOA.
However, as explained above, the Management Board has not yet adopted the policy for use of Qualified Entities.
4.5 Limiting the number of parts that need a Form 1
Please see CRD Part I paragraph 7.
4.6 Further considerations on the introduction of standard changes and standard repairs
Noted.
4.7 Fees and Charges
Please see CRD Part I paragraph 1.
5 Impact Assessment
5.1 Safety:
The departure from well established principles simply means that the demonstration of capability is based on the certification programme and not on an organisation approval. The reference to 'well established' principles was made because prior Part-21 came in force several countries had adopted JAR-21 that contain very comparable principles.

5.2 Economic:
Noted.
Please see CRD Part I paragraph 1.
6 Requirements for a real relief of the 'regulatory burden':
Agreed.
Please see CRD Part I paragraph 3.

comment *70* comment by: *John Tempest*

I believe that it is vital for EASA to produce a Code of Practice and a basic Design and Production Handbook that small organisations may work to, rather than small organisations having to draft a company Exposition and Design and Production Handbooks from scratch. This should be a finished publication which the accountable manager can sign up to, instead of having to start with the normal 'Anybody's Exposition' which is usually only a list of paragraph headings.

A standard design and production handbook, provided that it is kept simple and easy to follow, would save the vast expenditure of manual writing for start-up organisations, at a time when the organisation may not be familiar with the format and content required by EASA. An option should remain for organisations to write their own Exposition and handbooks to allow flexibility to interpret the rules.

The current ritual of writing handbooks before a company can commence trading is a major disincentive. The requirements could easily be covered by a published code of conduct and standard published handbooks for design and production which should be made available from EASA.

response *Accepted*

The Agency will publish the AMC using existing material.

comment *74* comment by: *Dyn'aéro*

Présentation / *Overview*

La société Dyn'Aéro est une entreprise Française constituée depuis 1992.
550 aéronefs ont été produits depuis cette date :

- 200 aéronefs relevant de la définition actuelle de l'ULM européen,
- 300 aéronefs vendus sous forme de kit (2 et 4 places),
- 50 aéronefs vendus clefs en main dans les cadres de certifications non OACI.

Le rythme annuel de production aujourd'hui est de 70 machines par an principalement sur le marché Européen.
Tous les aéronefs produits à ce jour par Dyn'Aéro répondent à la définition de ELA1.
Dyn'Aéro est un postulant potentiel dès aujourd'hui pour la certification de plusieurs de ses aéronefs au titre de l'ELA1.
Nos commentaires seront donc faits dans ce cadre, et uniquement pour les avions.

Dyn'Aero is a French company established since 1992.
550 aircrafts have been produced since this date:

- *200 aircrafts under the current definition of European ultralight.*
- *300 aircrafts sold as a kit (2 and 4 seaters),*

- *50 ready to fly aircrafts within the framework of ICAO non-certification.*

The annual rate of production nowadays is 70 machines per year mainly on the European market.
All aircraft produced so far by Dyn'Aero meet the definition of ELA1.
Today, Dyn'Aéro is a potential applicant for certification of several of its aircraft under the ELA1 category.
Our comments will be made in this framework, and only for aircrafts.

Commentaires généraux / *General comments*

Dyn'Aero remercie l'AESA pour l'excellente initiative que représente la volonté de définir une règlementation adaptée à l'aviation de loisir. L'objectif explicite de cette évolution réglementaire est la diminution des coûts de certification et d'exploitation (notamment au niveau de la maintenance) des avions de loisirs.

D'une manière générale, nous pensons que les modifications proposées sont ambitieuses et de nature à atteindre l'objectif annoncé qui est capital pour l'industrie aéronautique Européenne dans ce secteur.

Cependant, les points suivants (que nous détaillerons par la suite) nous semblent en mesure de mettre en péril la tenu de cet objectif.

- Beaucoup des allègements proposés restent aux stades des intentions et n'ont pas les précisions nécessaires permettant de garantir une bonne application du texte dans son esprit initial par les personnes (fonctionnaires ou membres d'une QE) qui seront en charge de son application opérationnelle,
- L'égalité de traitement entre les différents pays membres, possédant des cultures et des infrastructures de contrôle extrêmement disparate, n'est pas suffisamment garantie,
- L'introduction de la notion de LSA est à la fois totalement inutile (la définition des machines LSA étant couverte par l'ELA1), mais également dangereuse pour la compréhension du texte et pour les futures évolutions réglementaires pour les aéronefs aujourd'hui en annexe II.

Dyn'Aero thanks EASA for the excellent initiative that represents the will to define regulations suited to the recreational aviation. The explicit objective of this regulatory development is the reduction of certification and exploitation costs (including the level of maintenance) for recreational aircrafts.

Broadly speaking, we believe that the proposed changes are ambitious and likely to achieve the announced objective that is vital for the European aeronautics industry is this sector.
However, the following items (which we detail later) seem endanger the correct objectives reach:

- *Many of the proposed reductions remains in the stages of intentions and do not have the information necessary to ensure a proper application of the text in its original spirit by the persons (officials or members of a QE) to be in charge of its operational application ,*
- *The equal treatment between the various member countries, with cultures and control infrastructures extremely disparate, is not sufficiently guaranteed,*
- *The introduction of the LSA concept is, on the one hand, completely useless (the definition of LSA machines being covered by the ELA1), but also, on the other hand, dangerous for the text understanding and for future regulatory changes for aircraft which are today under the annex II.*

Commentaire général : Egalité de traitement / *General comments :*

Equality of treatment

Propositions :

Dyn'Aéro propose la publication des AMC utilisées par un constructeur pour l'usage des autres constructeurs.

Raisons :

Les imprécisions du texte ne garantissent pas l'égalité de traitement entre les différents pays. Or cette égalité de traitement est primordiale
Seules les précisions demandées dans les paragraphes précédents permettraient cette égalité de traitement.

D'autre part, l'un des fondements de la diminution des coûts étant l'utilisation d'AMC, il est donc indispensable que les AMC utilisés dans un pays soient immédiatement acceptés au sein des autres pays.

Proposals :

Dyn'Aéro proposes the publication of AMC used by a manufacturer for use by other manufacturers.

Reasons:

The inaccuracies in the text does not guarantee equality of treatment between different countries. And this equality of treatment is essential.
Only the precisions requested in the preceding paragraphs would allow equal treatment.

On the other hand, one of the foundations of cost reduction being the use of AMC, it is therefore essential that the AMC used in a country be immediately accepted in other countries.

response

Partially accepted

Presentation:
Noted.
General comment:
Thank you for your support.
We agree that it is necessary to develop detailed procedures for qualified entities and AMC to Part-21.
Recurrent rulemaking tasks to issue AMC resuting from certification experience will be considered by the Agency.
Equal treatment is ensured by EASA approval of certification programme and oversight of QE.
We agree that LSA is part of ELA; however we disagree that the CS-LSA is useless as it provides an appropriate certification code for this kind of machines.
In addition, please see CRD Part I paragraph 2.

comment

79 comment by: *PZL-Austria Handelsagentur*

Overview of PZL-Austria: Niessler Handelsagentur

Sales Agency representing since 1992 now or in past:

Allstar SZD Glider
PZL-Swidnik
LAK Lithuania
PZL-Mielec
MarS
Air-Pol
DynAero S.A
Funkwerke (Filser)
Avionic
PRC Instruments

Guidance and completion of Type Certificates acceptance at various National Aviation Authorities for PW-5, PW-6, SZD 50-3, SZD 51-1, SZD 55, SZD 59, LAK 17a, ATL-88/90.

As well as supplier at given times to:

Diamond Aircraft
Czech Aircraft Works
Rotax Engines
Comco Ikarus
Alisport
Apollo Halley
Bilsavia
DynAero
HTC

General:

I thank EASA for this excellent and innovative initiative that represents a new approach to light sports aircraft in Europe. Based on the goal to reduce the cost of certification production and maintenance however there are some few points which may endanger this objective to make it a full success.

Thank You.

Norbert Niessler
niessler@aon.at

response *Noted*

The Agency thanks the commentator for his support.

comment *84* comment by: *René Fournier*

I fully support the creation of a Single European Market for aviation products as it is clearly in the interest of the whole aviation community, including small recreational aviation, which now benefits from free movement of aircrafts, parts and appliances in Europe.

This also required an harmonisation of the level of safety rules, which should also be accepted in its principle. I however regretted level of constraints imposed by Regulations 1702/2003 and 2042/2003 on small recreational aviation, since it was unrealistic and far too burdensome. I thus now welcome the creation of working group MDM.032 and the result of the work undertaken

	in that context.
response	*Noted* Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment	*100* comment by: *European Sailplane Manufacturers* For the European sailplane manufacturers one important approach of making development of small aircraft less stringent during certification of new products is missing in NPA 2008-07. This is the certification of engines and propellers. Due to changes between Part 21 and former JAR-21 it is now necessary to certify the engines and propellers seperately. (At least the EASA interpreted the wording of 21A.21 (d) in this sense.) Herewith the manufacturers propose changed wording for this paragraph in the context of ELA aircraft: In the case of an aircraft according to 21A.14 (b) or (d), related to engine or propeller installation, the engine or propeller, or both, must: (i) have a typecertificate issued or determined in accordance with this Regulation; or (ii) have been shown to be in compliance with the certification specifications necessary to ensure safe flight of the aircraft. Such a rule would be in-line with earlier JAR-21 which allowed certification of an engine or propeller within certification of the aircraft which helped manufacturers very much to develop new powerplant concepts. This process has not led to saftey concerns. Furthermore such a change would be fitting to the general approach of this NPA 2008-07 which is aimed at reduced administrative burden for manufacturers of small aircraft. Last but not least this also would benefit the produces and manufacturers of such engines and propellers. Today especially these companies suffer most from the rule changes since Part 21 became active. In former times they could concentrate on engine / propeller development and the certification was delegated to the aircraft manufacturers. This task sharing worked well and was beneficary to both partners. Today these typically very small companies producing engines / propellers simply cannot afford the added burden of product / organisation certification due the relative small financial volume of their products.
response	*Noted* Please see CRD Part I paragraph b(1).

comment	*103* comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.* General comment The General Aviation crisis - with the solitary exception of the ultralights in the frame of Annex II - is resulting from the increasing regulatory harassment and

increasing costs (which result directly from over-regulation). These increased regulations are officially justified by a desire of increasing flight safety in this leisure activity, but prove to have no practical effect - at least on safety - except
* decreasing the number of pilots,
* decreasing the number of hours flown by pilots as a direct effect of the escalating costs,
* obstructing technical progress as a direct effect of the escalating costs for certifying parts and products, which induces the attitude to use and sell a product - once certified - as long, as possible,

all this even decreasing safety!

I welcome this initiative, which is likely to allow many Europeans pilots to benefit from the light regulatory frame light aviation is enjoying in many countries. The wish for an LSA equivalent in EU is a direct result of the wish for greater operational possibilities, which have become a simple reality because of the performances of modern ultralights. Realising these greater operational possibilities within the framework of present Annex II (which is technically absolutely possible) creates complex and extremely expensive aircrafts - the contrary of the simple and affordable aircrafts, ultralights wanted to be in the beginning. US-LSA shows a very reasonable way out of this situation.

To guarantee the success of this new regulation, I think that EASA showed pusillanimity in its approach of the future certification process, particularly when it comes to the ELA1 class, which is intended to encompass the greatest possible number of leisure aircraft.

It is only by setting up a self certification by the manufacturer that the costs of this process could be drastically reduced and thus support the creativity and the competition essential to the development of attracting leisure aviation. Comparing a self declaration system to a system based on Qualified Entities (QE), I am convinced that

* QE is far more expensive
* QE only provides a fictitious improvement of security

FAA-LSA is taking the security aspect into account,
*
1. by stipulating technically simple and good-natured aircrafts, and
2. by distinguishing two different cases of security/protection level needed:

* S-LSA, quasi („QE") certified by the manufacturer for a serial production, which must not be modified.
* E-LSA, built as an „Experimental", which can be modified.

Instead of setting up a heavy process of control involving many costly third parties, the Agency could have been satisfied with a survey control and probing system, reserving it's right to check the declarations of the manufacturers, or when failure to match the certification codes is suspected.

Thus, I estimate that the evolution suggested - even if it constitutes a certain lightening of their tasks for the existing manufacturers of certified aircrafts - will be insufficient to stop the decline of the leisure aviation as a whole.

This is more than certain when reviewing the currently published proposals

related to licensing and maintenance procedures, which are practically as heavy as what prevailed before (national legislations). The promised innovation seems to be nothing else but a slightly modified reproduction of the stillborn child VLA, which has never had any positive effect on recreational aviation. So, I express my large disappointment about the way those promising new rules are developed.

General conclusion:

The proposed changes in the present NPA were not what the light aviation community asked for. The proposed amendments represent rather an attempt of resuscitation of the conventional light aviation than of a successful integration of the modern Ultralights in the European regulatory frame work. There is a serious risk, that the successful light aviation, represented by the modern Ultralights, will be killed by the present proposals.

The future of Annex II must not be related with the introduction of ELA, the way, it is proposed now. Within the Annex II, a lot of pilots fly, a lot of manufacturers work and a lot of employees earn a living. The Annex II has to be protected until ELA has proved that it can be as successful as the Annex II area. In such circumstances I express firmly my clear and determined choice that aircraft below 450kg MTOW (472,5Kg with recovery parachute) should remain outside of the scope of EASA, in Annex II. I am very satisfied with the current situation and have no wish whatsoever to see it change.

Concerning the aspect of the subclass LSA, whose purpose it is to facilitate the work of the European manufacturers already exporting in the USA, I am astonished about the technical framework introduced by the NPA. Actually, the American LSA class is strictly limited to a minimum stall speed without flaps to 45 kts and to a 120 kts maximum full power level speed. Also prohibited are the use of variable pitch propellers and retractable gears. If exonerating ELA 1 of these limitations, which justify the lightened regulation granted to this new class of aircraft by the FAA, the Agency does not achieve this goal.

Therefore, I hereby clearly claim to adopt the original definition of the FAA-LSA category without reservation.

Justification:

* US-LSA has well been considered and created with a good know-how. It is principally useful.
* It is better to accept a limitation of technical complexity, than a limitation of operational use of the aircrafts.
* Accepting a limitation of technical complexity is the best argument for staying out of complex (over)regulation.
* Technical complexity is expensive.

response *Noted*

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment *132* comment by: *SAMA Swiss Aircraft Maintenance Association*

SAMA is very much in favour of proportional, simplified airworthiness regulations for non complex aircraft throughout Europe.
Experience with presently existing EASA airworthiness regulations being

applied to general aviation aircraft by the NAA has clearly shown that thse rules represent an overkill, mainly in respect to continuing airworthiness, but also for some aspects of initial certification. The consequence may be the contrary of the original intent insofar as regulations which are not adapted (to effective and perceived risks as well as to the economic capacity of the sector) and straightforward to follow tend to be circumvented.
The process chosen by EASA to derive simplified requirements from those designed for large transport aircraft, and to do it in several partial processes, unfortunately results in a patchwork of proposed amendments which is difficult to evaluate in its overall effect. Even though the proposed requirements/procedures for the least complex aircraft are relaxed, the regulatory approach appears to be more complex than for large aircraft.
We advocate regulations which are easy to comprehend and to follow by all people involved. This is an elementary human factors consideration. Therefore, the proposed segmentation of light aircraft in several weight categories or/and 'processes' should not be pursued. Instead, we would favour a straight forward use of a 'non complex' regime as implied by 216/2008, article 3(j) also for initial airworthiness considerations. The principles (simplified procedures and shift of responsibilities towards the industry) proposed for ELA should be applicable without further subdivision.
Obviously, the definition of a less segmented set of rules would not be be achievable within the presently proposed implementation schedules, including Opinion 02/2008. A longer delay for applying Part-M to these aircraft would be necessary. Obviously, shifting any applicability date for non large aircraft would not create any safety gap. The whole standardisation process aims at creating a level playing field, it is not a necessity for safety reasons in this category of aircraft.

response

Noted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

138 comment by: *Fridrich Jan*

Domnívám se, že změny navrhované v tomto NPA nejsou tím co jsem očekával. Chtěl jsem o samotě stojící kategorii evropské LSA (pokrývající všechny čtyři základní oblasti leteckých aktivit - letovou způsobilost, údržbu, licencování a provoz), která by zůstala kompatibilní s americkou LSA. Navržené dodatky jsou více pokusem o resuscitaci konvenčního lehkého letectví, než pokusem o úspěšnou integraci lehkých sportovních letadel do MTOM 600kg (vycházejících z moderních UL letadel) do evropského regulačního systému. Existuje vážné riziko, že úspěšná oblast lehkého letectví (reprezentovaná moderními UL letadly) bude těmito návrhy zničena.

Současně s tímto návrhem ale musí být chráněn současný Annex II, minimálně do doby než se nový sytém ukáže jako funkční a stejně úspěšný jako systém založený na Annexu II. Dnes je mnoho pilotů, výrobců a zaměstnanců závislých na správné funkci systému Annex II. Jeho možné změny nemohou být svazovány s představením systému ELA.

Domnívám se, že představené technické specifikace mohou být funkční, ale stále si myslím, že lepší variantou by bylo vytvoření samostatně stojící evropské LSA, která by mohla vyřešit všechny specifické problémy této kategorie na jednom místě.

Navrhovaný systém se jeví jako velmi komplikovaný, přesto by mohl být

funkční, ale jeho funkčnost přímo závisí na:

1/ Poplatcích EASA - jejich stávající výše a struktura neumožní zejména malým podnikům zapojení do tohoto nového systému. Výše poplatků je neúměrná pro lehké letectví.

2/ Mechanismus akreditace QE - Kvalifikovaných subjektů je nejasný, stejně jako dělba kompetence mezi EASA a NAA pro získání POA (Oprávnění organizace k výrobě) případně kombinovanému DOA/POA, není také jasné kolik tento proces bude stát

3/ jakým způsobem bude EASA řešit požadavky na získání akreditace QE a ve stejném čase nejméně 20 žádostí evropských výrobců LSA, která se již vyrábějí, domníváme se že tento systém není pro lehké letectví dostatečně flexibilní. Domnívám se, že bude nutné připravit systém pro převod již existujících LSA letadel.

4/ jak bude nastaven celý EASA systém tzn. i Údržba, Provoz, Licencování atd.

5/Celý systém je navržen jen pro továrně vyráběná letadla. Jak se budou řešit případy amatérské stavby z továrně vyrobených stavebnic letadel, která budou mít typový certifikát na základě procesu ELA?

Navrhuji
Vytvořit samostatně stojící evropskou kategorii LSA s jednotným Evropským technickým předpisem založeným na ASTM F2245, s jednotným Typovým certifikátem. Přepisy budou jednotné evropské ale implementované na národní úrovni pověřenými národními sportovními organizacemi a v zemích, kde takové organizace neexistují, příslušným NAA. Na přípravě takového systému jsem připraven se podílet.

response *Partially accepted*

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment *151* comment by: *Light Aircraft Association of the Czech Republic*

Light Aircraft Association of the Czech Republic - LAA ĆR thinks that proposed changes in the present NPA were not what the light aviation community asked for. We asked for a stand-alone European LSA category (covering all basic four areas of aviation activity - Initial airworthinnes,Maintenance, Licensing and Operations), compatible with LSA category in the United States. The proposed amendments represent more an attempt at resuscitation of the conventional light aviation than of a successful integration of the light sport aircraft with MTOM 600kg (based on modern microlights) in the European regulatory frame work. There is a serious risk that the successful light aviation (represented by the modern microlights) will be killed by the present proposals.

At the same time the Annex II must be protected until this new proposed system will proove that it can be as successfull as the Annex II system.Within the AnnexII a lot of pilots fly, a lot of manufacturers work and a lot of employees earn living. The possible withdrawal of AnnexII must not be related with the introduction of ELA system.

LAA ČR thinks that technical specifications could work, but we still think that it

would be better to have separate stand alone European LSA category which could solve all specific requirements of this category at one place.

The new system which EASA is proposing is quite complicated and will strongly depend on following aspects:

1- EASA fees and charges - if they will stay as they are it will ruin small companies who are now producing LSA for USA - Proposal - use the financing based on small fee from airtickets - the same as is used in the USA.

2- it is not clear how the system of appointing Qualified Entities will work and how much it will cost to run such systém. Also the kompetence between EASA and NAA concerning POA and combined DOA/POA is unclear.

3- ability of EASA to respond on time - we feel that for light aviation the flexibility of current systém is not enough

4- functionality of the whole system depends also on results of proposals for Maintenance, Licensing, OPS etc, on this time it is not clear that the whole system will work for light aviation.

5- very important aspect is that it is not clear how wil EASA handle many applications for LSA certification on day one of validity of new rule, in the same time the QE should be ready as well. It would be appropriate to introduce some grandfather rules for existing aircraft.
6-this new system is designed for company manufactured aircraft only. How would be solved homebuild from copany manufactured kit of aircraft which will receive Type Certificate based on ELA process?

Proposal
We propose to create stand alone european LSA category with MTOM 600kg with common European technical requirements based on ASTM F2245, with European Type Certificate. The rules will be common european but implemented on national level by acredited national sporting organisations and in the countries where such organisations do not exist by relevant NAA. LAA ČR is ready to help with creation of such system.

response

Partially accepted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

166 comment by: *Alexander Eich*

- 1. Suggested changes in the present NPA were not what the light aviation community demanded. We wanted a stand-aloneEuropeanLSA category,compatible with LSA categoryin the United States. The proposed amendments represent more an attempt at resuscitation of the conventional light aviation than of a successful integration of the modern Ultralights in the European regulatory frame work. There is a serious risk that the successful light aviation (represented by the modern Ultralights) will be killed by the present proposals.

- 2. The withdrawal of Annex II must not be related with the introduction of ELA. Within the Annex II a lot of pilots fly, a lot of manufacturers work and a lot of employees earn a living. The Annex II has to be protected until ELA has prooved that it can be as successful as the

Annex II area.

response

Noted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

213 comment by: *DynAero Iberica*

Présentation / Overview
DynAero Ibérica est une societé Portugaise de production d'avions légers et ULM métallique et composite constituée depuis 2001, ayant produit 300 avions a ce jour.
Le rythme annuel de production aujourd'hui est de 70 machines par an principalement sur le marché Européen.
Tous les aéronefs produits à ce jour par DynAero Ibérica répondent à la définition de ELA1.
DynAero Ibérica est un postulant potentiel dès aujourd'hui pour la certification de plusieurs de ses aéronefs au titre de l'ELA1.
Nos commentaires seront donc faits dans ce cadre, et uniquement pour les avions.
DynAero Ibérica is a Portuguese company wich produces composite and metal light aircraft established since 2001.
300 aircrafts have been produced since this date.
The annual rate of production nowadays is 70 machines per year mainly on the European market.
All aircraft produced so far by DynAero Ibérica meet the definition of ELA1.
Today, DynAero Ibérica is a potential applicant for certification of several of its aircraft under the ELA1 category.
Our comments will be made in this framework, and only for aircrafts.

Commentaires généraux / General comments
DynAero Ibérica remercie l'AESA pour l'excellente initiative que représente la volonté de définir une règlementation adaptée à l'aviation de loisir. L'objectif explicite de cette évolution réglementaire est la diminution des coûts de certification et d'exploitation (notamment au niveau de la maintenance) des avions de loisirs.
D'une manière générale, nous pensons que les modifications proposées sont ambitieuses et de nature à atteindre l'objectif annoncé qui est capital pour l'industrie aéronautique Européenne dans ce secteur.
Cependant, les points suivants (que nous détaillerons par la suite) nous semblent en mesure de mettre en péril la tenu de cet objectif.
• Beaucoup des allègements proposés restent aux stades des intentions et n'ont pas les précisions nécessaires permettant de garantir une bonne application du texte dans son esprit initial par les personnes (fonctionnaires ou membres d'une QE) qui seront en charge de son application opérationnelle,
• L'égalité de traitement entre les différents pays membres, possédant des cultures et des infrastructures de contrôle extrêmement disparate, n'est pas suffisamment garantie,
• L'introduction de la notion de LSA est à la fois totalement inutile (la définition des machines LSA étant couverte par l'ELA1), mais également dangereuse pour la compréhension du texte et pour les futures évolutions réglementaires pour les aéronefs aujourd'hui en annexe II.

DynAero Ibérica thanks EASA for the excellent initiative that represents the will to define regulations suited to the recreational aviation. The explicit objective of this regulatory development is the reduction of certification and exploitation

costs (including the level of maintenance) for recreational aircrafts.
Broadly speaking, we believe that the proposed changes are ambitious and likely to achieve the announced objective that is vital for the European aeronautics industry is this sector.
However, the following items (which we detail later) seem endanger the correct objectives reach:
• Many of the proposed reductions remains in the stages of intentions and do not have the information necessary to ensure a proper application of the text in its original spirit by the persons (officials or members of a QE) to be in charge of its operational application ,
• The equal treatment between the various member countries, with cultures and control infrastructures extremely disparate, is not sufficiently guaranteed,
• The introduction of the LSA concept is, on the one hand, completely useless (the definition of LSA machines being covered by the ELA1), but also, on the other hand, dangerous for the text understanding and for future regulatory changes for aircraft which are today under the annex II.

Commentaire général : Egalité de traitement / General comments : Equality of treatment

Propositions :
DynAero Ibérica propose la publication des AMC utilisées par un constructeur pour l'usage des autres constructeurs.
Raisons :
Les imprécisions du texte ne garantissent pas l'égalité de traitement entre les différents pays. Or cette égalité de traitement est primordiale
Seules les précisions demandées dans les paragraphes précédents permettraient cette égalité de traitement.
D'autre part, l'un des fondements de la diminution des coûts étant l'utilisation d'AMC, il est donc indispensable que les AMC utilisés dans un pays soient immédiatement acceptés au sein des autres pays.

Proposals :
DynAero Ibérica proposes the publication of AMC used by a manufacturer for use by other manufacturers.

Reasons:
The inaccuracies in the text does not guarantee equality of treatment between different countries. And this equality of treatment is essential.
Only the precisions requested in the preceding paragraphs would allow equal treatment.
On the other hand, one of the foundations of cost reduction being the use of AMC, it is therefore essential that the AMC used in a country be immediately accepted in other countries.

response

Noted

Presentation: Noted.
General comment: Thank you for your support. We agree that it is necessary to develop detailed procedures for qualified entities and AMC to Part-21. Recurrent rulemaking tasks to issue AMC resuting from certification experience will be considered by the Agency.
Equal treatment is ensured by EASA approval of certification programme and oversight of QE. We agree that LSA is part of ELA; however we disagree that the CS-LSA is useless as it provides an appropriate certification code for this kind of machines. This comment could indicate that the applicability of CS-VLA is too close to the applicability of CS-LSA.

Please also see CRD Part I paragraph b(2) and the resulting text.

comment *228* comment by: *Aero-Club of Switzerland*

To do the work, the Aero-Club of Switzerland prepared a list of all weight limits the Organisation could find. The result: There are very many. We propose to the Agency to take a look at this fact, to reduce the number of the actual weight limits to the necessary minimum within the near future.

response *Noted*

The Agency has tried to define proportionate rules and this implies defining several weight criteria. The Agency will consider the comment in future regulatory work.

comment *229* comment by: *Lyndhurst Touchdown*

General
In general our company is very pleased with the proposal. This represents a huge step forward for light aviation within Europe. Manufacturers and light aircraft pilots need a more lightly regulated form of aviation which can adapt and develop more quickly than the heavily restrained structure that currently exists. Harmonisation within Europe is essential with approved aircraft being accepted in all European countries and pilots entitlements being transferred across borders.

response *Noted*

The Agency thanks the commentator for their support.

comment *234* comment by: *Flight Design GmbH Matthias Betsch CEO*

General comment

- 1. According FAA and EAA, the amateur built aircraft which have not any design or manufacturing oversight have an excellent safety record in the US. Design errors are less often reasons for accidents than with certified aircrafts. Maintenance mistakes and pilot errors (mainly during first flights) are more often reason for accidents of amateur built aircraft. In 3 years experience of LSA in USA only one design issue did cause an accident with an aircraft holding also a standard type certificate.

These are hard statistic data that clearly proofs that aircrafts with design and manufacturing oversight do not automatically have any safety benefit. Statistics show even the opposite. One reason is considered to be that traditional standards (Part 21,22,23,25) are static and not dynamically developing to safety needs like ASTM F2245, F2279 and others do. Another reason is considered that with the significantly enlarged liability when doing self declaration, most companies are out of their own interest much more careful.

- 2. The proposed changes in the present NPA are not what the light aviation community asked for. We plead for a stand-aloneEuropeanLSA category,compatible with LSA categoryin the United States. The proposed amendments represent more an attempt at resuscitation of the conventional general aviation than of a successful integration of the modern (Ultra)lights in the European regulatory frame work. There is a

serious risk that the world leading European light aviation industry (represented by the modern Advanced Ultralights) will be destroyed totally by the present proposals.

- 3. The withdrawal of Annex II must not be related with the introduction of ELA. Within the Annex II a lot of pilots fly, a lot of manufacturers work and a lot of employees earn a living. The Annex II has to be protected at least until ELA has prooved that it can be as successful as the Annex II area.

response

Noted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

238 comment by: *Walter Da Costa*

General comment

- 1. According FAA and EAA, the amateur built aircraft which have not any design or manufacturing oversight have an excellent safety record in the US. Further more design and manufacturing errors are less than with certified aircrafts. Maintenance and pilot errors (first flights) are more. In 3 years LSA in the US only one design issue did come up and that was with an type certified aircraft.

That clearly proofs that aircrafts with design and manufacturing oversight do not delivery any safety benefit. Statistics show even the opposite. The reason can be that traditional standards (Part 21,22,23,25) are static and not dynamically developing to safety needs like ASTM 2245,2279 and others.

- 2. The proposed changes in the present NPA were not what the light aviation community asked for. We plead for a stand-aloneEuropeanLSA category,compatible with LSA categoryin the United States. The proposed amendments represent more an attempt at resuscitation of the conventional general aviation than of a successful integration of the modern (Ultra)lights in the European regulatory frame work. There is a serious risk that the world leading European light aviation industry (represented by the modern Advanced Ultralights) will be destroyed totally by the present proposals.

- 3. The withdrawal of Annex II must not be related with the introduction of ELA. Within the Annex II a lot of pilots fly, a lot of manufacturers work and a lot of employees earn a living. The Annex II has to be protected until ELA has prooved that it can be as successful as the Annex II area.

Comment 1

Page 8 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Qualified Entities

negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a).

In addition to this, it must be ensured that a common level is achieved for

applicants throughout all the EASA member states. This is mostly the issue from side of the QE´s, when they are approved and supervised by the Authority solely. Involvement of the NAA´s because of varying capabilities in practice shows that this is not the case and this will lead to different safety levels and unfair competition . This problem can be overcome by a Pan European QE. It is not the task of the EASA, or this NPA and comments, to initiate such a Pan European QE, but the effect and usage, when it comes to existence, must be defined.

Proposal 2: Pan-European QE´s by their pan European nature must be appointed by the Agency. In case the applicant selects the Pan- European QE, combined DOA/POA applications will be automatically dealt with by the Agency, and not through CA´s or NAA´s.

Comment 2
Page 9 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Design and Production Organization Approvals

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

Comment 3
Page 9 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Design and Production Organisation Approvals

Negative, the proposal as presented here is in the suitable direction, but not reaching far enough.

As is commonly known and transparent through their individual approvals, the existing NAA´s have a sometimes significantly different qualification and capability level, due to whatever reason. As the NPA is formulated, it is up to the NAA of the country, where the company is based, to select, whether they will deal with the combined DOA/POA approval themselves, or whether they delegate their part to the Agency. The reason for this decision is completely left to the NAA. As by widely know experience NAA's have different levels, this will lead to unacceptable different level of safty and unfair competition.

Proposal: It must be clear from the start that combined DOA/POA approvals are dealt with always by the Agency. If this is not in line with the basic regulation, a general agreement between Agency and NAA´s must be achieved when issuing these changes, that NAA´s accept combined DOA/POA applications to be dealt through the agency on the basis of basic regulation 20(2)b(ii).

Comment 4
Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Limiting the number of parts that need a Form 1 - Question 1
Answer to Question:

It is the opinion of this stakeholder, that it is appropriate to limit the possibility to release parts without a Form 1 as described in the NPA to aircraft that are used for non-commercial purposes. However, for all commercial usage it is possible to install parts without explicit Form 1 that come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

Comment 5
Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Creation of a Certification Specification for Light Sport Aeroplanes

Comment 2 valid also here.

Comment 6
Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Creation of a Certification Specification for Light Sport Aeroplanes

The slight differences have a noticeable effect to the product:

- - A limitation do Day VFR only is considered not acceptable, as the standard explicitly provides requirements for night VFR (already now) and IFR (upcoming right now) operation.
  We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.
- - It is in the very nature of the ASTM standard, to evolve, in order to further raise the level of safety and keep the requirements always up to date. For FAA registered LSA it is a must, after a certain transition time, for the applicant to upgrade his design in line with newer standards. In the implementation proposed by EASA, an applicant may choose to stay on the

lower level, selling an aircraft of the same category at a lower level of qualification, whilst others are forced to update, as they already have to do when they sell to FAA world.

Comment 7
Page 22 A. EXPLANATORY NOTE - Attachment 2 - Who does what - Initial and Continued Airworthiness - ELA 1 - Organisational Approval

Comments 1 and 2 apply here as well - link same comment to this position.

Comment 8
Page 22 A. EXPLANATORY NOTE - Attachment 2 - Who does what - Initial and Continued Airworthiness - ELA 1 - Accredition and Surveillance

Accreditation of Design Organizations must be under Agency, not NAA, already now.

Comments to POA also have effect on last line here.

Comment 9
Page 26/27 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Comment 2 also valid here

Comment 10
Page 26/27 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart J. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

Comment 11
Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart G - 21A.139 Quality System

Comment 2 also valid here

Comment 12
Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart G - 21A.139 Quality System

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart G. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach POA privileges as defined in Subpart K, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the Quality System (21A.139 (a) (b) or (c)) on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

Comment 13
Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart K - 21A.307 Release of parts and appliances for installation

Enhance (c) so that for all commercial usage it is possible to install parts without explicit Form 1 only when they come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

Comment 14
Page 31/32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.359 Design Assurance System

Comment 2 also valid here

Comment 15
Page 31/32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.359 Design Assurance System

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical

way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b) or (c) , when deviating from the relevant paragraphs for the design assurance system but having a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

Comment 16
Page 32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.361 Production Organisational Review

Comment 2 also applies here

Comment 17
Page 32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.361 Production Organisational Review

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (c) must be added, allowing to reach POA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b), when deviating from the relevant paragraphs for the Production Organizational Review on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

Comment 18
Page 42 - B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General - LSA 3 Aeroplane categories

Comment 2 also applies here

Comment 19
Page 42 - B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General - LSA 3 Aeroplane categories

Negative. A limitation to VFR day is considered as not acceptable, as the standard offers well suitable standards also for VFR night operation and soon IFR operation. There is no real reason visible why this can not be accepted as well in EASA world, like in FAA world.
We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.

Comment 20
Page 5/6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Overview of the proposals included in this NPA

Page 6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 1

Page 7 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 2

Page 26/27 B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".
This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.
Comment 21

Page 4 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Introduction

Page 12 - A. Explanatory Note - V. Regulatory Impact Assessment - 1. Purpose and intended effect

Page 14 - A. Explanatory Note - V. Regulatory Impact Assessment - 4. Impacts (Economics)
As is widely known, current high performance aircraft within Annex II are on the limits of the definitions under Annex. As is also commonly known, there are a huge number of active pilots and new aircraft under Annex II.

For the success of ELA it is mandatory, that there is a sensible and easy (in sense of effort, time and cost) way to upgrade existing aircraft of Annex II to be used under ELA concept. This applies to both, initial airworthiness and licensing. Licensing will be commented separately in answer to the licensing NPA. Excluding these pilots / owners from the new category will be overcritical

for the the success of the new system and cannot be justified with any safety mean.

Regarding Initial Airworthiness the proposal is to use a similar mechanism like done in USA when introducing the LSA category. There a limited timeframe was available, where each aircraft owner had the possibility by simple paperwork to get his/her aircraft certified as "experimental" LSA with certain operational limitations to the new category. There was no new checking of compliance or such, the individual aircraft was accepted on the basis of its existing operational experience. For most aircraft owners this is fully sufficient.

Secondly, it is proposed to also offer for factory produced Annex II aircraft already in service to enhance the scope of usability by showing compliance on the basis of the certification code the aircraft is already certified to, and upgrading it through the manufacturing company to the ELA category, without operational limitations. An example would be that an Ultralight, currently certified under LTF-UL (Germany), or Section S (UK) or UL-2 (Czech) or other equivalent codes become an LSA aircraft, still following original certification code, but with enhanced takeoff mass.

response

Noted

This comment is identical to the set of comments produced by Flight Design GMBH. The reader is kindly requested to refer to the replies produced for these comments.
Last point:
If the manufacturer of an aircraft originally classified in Annex II wishes to increase the Maximum Take-Off Mass of the design beyond the limit of Annex II, it will have to comply with the requirements applicable to ELA, including design and production requirements.

comment

239 comment by: *Ronald MEYER*

General comment

The General Aviation crisis - with the solitary exception of the ultralights in the frame of Annex II - is resulting from the increasing regulatory harassment and increasing costs (which result directly from over-regulation). These increased regulations are officially justified by a desire of increasing flight safety in this leisure activity, but prove to have no practical effect - at least on safety - except

- decreasing the number of pilots,
- decreasing the number of hours flown by pilots as a direct effect of the escalating costs,
- obstructing technical progress as a direct effect of the escalating costs for certifying parts and products, which induces the attitude to use and sell a product - once certified - as long, as possible,

all this even decreasing safety!

I welcome this initiative, which is likely to allow many Europeans pilots to benefit from the light regulatory frame light aviation is enjoying in many countries. The wish for an LSA equivalent in EU is a direct result of the wish for greater operational possibilities, which have become a simple reality because of the performances of modern ultralights. Realising these greater operational possibilities within the framework of present Annex II (which is technically

absolutely possible) creates complex and extremely expensive aircrafts - the contrary of the simple and affordable aircrafts, ultralights wanted to be in the beginning. US-LSA shows a very reasonable way out of this situation.

To guarantee the success of this new regulation, I think that EASA showed pusillanimity in its approach of the future certification process, particularly when it comes to the ELA1 class, which is intended to encompass the greatest possible number of leisure aircraft.

It is only by setting up a self certification by the manufacturer that the costs of this process could be drastically reduced and thus support the creativity and the competition essential to the development of attracting leisure aviation. Comparing a self declaration system to a system based on Qualified Entities (QE), I am convinced that

- TC/QE-System is far more expensive
- TC/QE-System only provides a fictitious improvement of security

FAA-LSA is taking the security aspect into account,

- 1. by stipulating technically simple and good-natured aircrafts, and
  2. by distinguishing two different cases of security/protection level needed:

- S-LSA, for a serial production;
- E-LSA, for aircraft, built as an „Experimental".

Instead of setting up a heavy process of control involving many third parties (for valuable consideration), the Agency could have been satisfied with a survey control and probing system, reserving it's right to control the manufacturers and to verify their declarations.

Thus, I estimate that the proposals for a new ELA1/ELA2 category - even if it will bring a certain relief for the manufacturers of certified aircrafts - will be insufficient to stop the decline of the General Aviation outside Annex II.

This is more than certain when reviewing the currently published proposals for licensing and maintenance procedures, which are practically as heavy as the currently applicable regulations. The promised innovation seems to be nothing else but a slightly modified reproduction of the stillborn child VLA, which has never had any positive effect on recreational aviation. So, I express my large disappointment about the way those promising new rules are developed.

General conclusion:

The proposed changes in the present NPA were not what the light aviation community asked for. The proposed amendments represent rather an attempt to reanimate the conventional light aviation by obsolete methods than an up-to-date concept, successfully integrating the modern Ultralights in the European regulatory frame work. There is a serious risk, that the successful light aviation, represented by the modern Ultralights, will be killed by the present proposals.

The future of Annex II must not be related with the introduction of ELA, the way, it is proposed now. Within the Annex II, a lot of pilots fly, a lot of manufacturers work and a lot of employees earn a living. The Annex II has to

	be protected until ELA has proved that it can be as successful as the Annex II area. In such circumstances I express firmly my clear and determined choice that aircraft below 450kg MTOW (472,5Kg with recovery parachute) should remain outside of the scope of EASA, in Annex II. I am very satisfied with the current situation and have no wish to see it change. Concerning the aspect of the subclass LSA, whose purpose - inter alia - is to facilitate the work of the European manufacturers already exporting in the USA, I am astonished about the technical criteria proposed in the NPA. The American LSA class is strictly limited to a minimum stall speed without flaps of 45 kts and to 120 kts maximum full power level speed. Also prohibited is the use of variable pitch propellers and retractable gears. If exonerating ELA 1 of these limitations, which justify the lightened regulation granted to this new class of aircraft by the FAA, the Agency does not accomplish this goal. Therefore, I hereby clearly claim to adopt the original definition of the FAA-LSA category without reservation. Justification: • US-LSA has well been considered and created with a good know-how. It is principally useful. • It is better to accept a limitation of technical complexity, than a limitation of operational use of the aircrafts. • Accepting a limitation of technical complexity is the best argument for staying out of complex (over)regulation. • Technical complexity is expensive.
response	*Noted* Many commentators expressed the view that the NPA was not achieving 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 FAA. The Agency recognises that the choice to remain within the framework of Regulation 216/2008 leads only to simplifications of the existing certification process. This has advantages such as the creation of a European Light Aircraft (ELA) process (with two sub-processes ELA1 and ELA2) including: • the issue of Type Certificates or Restricted Type Certificates as appropriate with simplified or adapted requirements for organisations approvals, and • the creation of an approach by which not all parts need a Form 1, and • the creation of a new Certification Specification (CS) called CS-LSA (Light Sport Aeroplanes) based on ASTM F2245, and proposing extension of the scope of CS-VLA and CS-22, • the allocation of certification tasks to qualified entities in addition to National Authorities. In addition, Regulation 216/2008 allows for the creation of a system of standard changes and repairs for all non-complex aircraft. However, in this context all legal approvals remain issued by the Agency under its fees and charges system. This fees and charges system is considered by stakeholders as being a major hindrance to certification of new aircraft or to certification of changes or repairs to existing aircraft. The fees and charges regulation is adopted by the Commission. .The applicant pays the fees to EASA. The contracts between EASA and NAA or qualified entities when they are

allocated tasks by EASA contain the financial arrangements between EASA and NAA or QE. Modifying this framework necessitates an in-depth further study.
The Agency will issue an Opinion around December 2010 for the modification of Regulation 1702/2003 to implement the simplifications outlined above. Such an Opinion could be adopted by the Commission in 2011 allowing applicants to benefit of such simplifications for applications received shortly afterwards. Designers of existing aircraft complying with the ELA criteria will also be able to make use on a voluntary basis of the relevant provisions of Part-21.
However, the Agency accepts that what this NPA proposes is alleviating process for classical light aviation and proposing a more proportionate process for LSA as today they would have to be certified using CS-VLA or CS-23 and would need full POA and APDOA.
Separate from the current process and having noted the reservations of some members of the MDM.032 group, the Agency will propose a new NPA or NPAs to modify Regulation 216/2008 to propose deregulation of a certain segment of light aviation. The objectives of such an NPA may be summed up as follows:

1. Propose the necessary modifications to the Basic Regulation and EASA Implementing Rules to achieve an adapted level of regulation for ELA1 for airworthiness, maintenance, operations and licensing.
2. Harmonise the above with other authorities.
3. Improve the approach to orphan aircraft.
4. Review the essential requirements for airworthiness to avoid any unwanted effects on small aircraft.
5. Propose that a Type Certificate for engine and propellers is not needed for some ELA aircraft.
6. Ensure that self-sustained powered sailplanes equipped with a turbojet are non-complex aircraft.

This proposal to modify the Basic Regulation will follow the rulemaking process, therefore allowing full consultation of stakeholders and will be supported by a study. The corresponding rulemaking task could start in 3rd quarter of 2010 with an Opinion issued in early 2013.
The Agency wishes to point out that in its Opinion scheduled for December2010 it will not propose any modifications to Annex II. If the manufacturer of an aircraft originally classified in Annex II wishes to increase the Maximum Take-Off Mass of the design beyond the limit of Annex II, it will have to comply with the requirements applicable to ELA, including design and production requirements.

comment *254* comment by: *Gorden WIEGELS*

response *Noted*

No comment placed here.

comment *270* comment by: *Klaus Erger*

1. The proposed changes in the present NPA were not what the light aviation community asked for. We plead for a stand-alone European LSA category, compatible with LSA category in the United States. The proposed amendments represent more an attempt at resuscitation of the conventional light aviation than of a successful integration of the modern Ultralights in the European regulatory frame work. There is a serious risk that the successful light aviation (represented by the modern Ultralights) will be killed by the present proposals.
2. The withdrawal of Annex II must not be related with the introduction of ELA.

	Within the Annex II a lot of pilots fly, a lot of manufacturers work and a lot of employees earn a living. The Annex II has to be protected until ELA has prooved that it can be as successful as the Annex II area.
response	*Noted* Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment	*283* comment by: *Drive & Fly Luftfahrt GmbH* *Overview* Drive and Fly works with dyn'aero for many years. You will find the compagny website link opposite : http://www.drive-and-fly.de/ Given that Dynaero is a potential applicant for the certification ELA1 and that we are the official dealer of the Dyn'Aero aircrafts in Germany, we believe it is important to comment on the NPA 2008/07 as long as this possibility is offered to us. Drive and Fly will comment the sections : - "A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - AMC and GM to be produced or modified", and - "B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes " but supports all other points.
response	*Noted* The agency thanks the commentator for their support. Separate responses will be provided to the detailed comments.

comment	*287* comment by: *Karg* 1. The proposed changes in the present NPA were not what the light aviation community asked for. We plead for a stand-aloneEuropeanLSA category,compatible with LSA categoryin the United States. The proposed amendments represent more an attempt at resuscitation of the conventional light aviation than of a successful integration of the modern Ultralights in the European regulatory frame work. There is a serious risk that the successful light aviation, represented by the modern Ultralights, will be killed by the present proposals. 2. The withdrawal of Annex II must not be related with the introduction of ELA. Within the Annex II a lot of pilots fly, a lot of manufacturers work and a lot of employees earn a living. The Annex II has to be protected until ELA has proofed that it can be as successful as the Annex II area.
response	*Noted* Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment	*308* comment by: *TECNAM* 1. According FAA and EAA, the amateur built aircraft which have not any design or manufacturing oversight have an excellent safety record in the US.

Further more design and manufacturing errors are less than with certified aircrafts. Maintenance and pilot errors (first flights) are more. In 3 years LSA in the US only one design issue did come up and that was with an type certified aircraft.
That clearly proofs that aircrafts with design and manufacturing oversight do not delivery any safety benefit. Statistics show even the opposite. The reason can be that traditional standards (Part 21,22,23,25) are static and not dynamically developing to safety needs like ASTM 2245,2279 and others.
2. The proposed changes in the present NPA were not what the light aviation community asked for. We plead for a stand-alone European LSA category, compatible with LSA category in the United States. The proposed amendments represent more an attempt at resuscitation of the conventional general aviation than of a successful integration of the modern (Ultra)lights in the European regulatory frame work. There is a serious risk that the world leading European light aviation industry (represented by the modern Advanced Ultralights) will be destroyed totally by the present proposals.
3. The withdrawal of Annex II must not be related with the introduction of ELA. Within the Annex II a lot of pilots fly, a lot of manufacturers work and a lot of employees earn a living. The Annex II has to be protected until ELA has proved that it can be as successful as the Annex II area.

response

Noted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

331 comment by: *Luftfahrt-Bundesamt*

It is very much welcomed, EASA is taking up the criticism of stakeholders, introducing forms of relief within the current rules and regulations for European general / sports aviation. Almost 5 years after EASA has been set up, it is highest time to do so.

Unfortunately, only some parts of the European regulations, that, in a broader sense, do not fit the needs of general / sports aviation, are proposed to be altered - an overall view is just briefly touched, not investigated in more depth. That is very regrettable. To draw a comparison: It is not useful, to take care for the cold of a patient, but not to provide for his broken leg.

The fees and charges regulation e.g., is a serious drawback for individual designers and small companies. Fees and charges have been raised dramatically in June 2007, cancellation of applications or postponement since June 2007 are a consequence of inappropriate high fees and charges. This cannot be justified by "fundamentals" or "political will" - potential taxpayers should get the chance to pay taxes after getting into the business, not to be stalled financially just at the beginning of their activities.

In this context, wishes expressed by individual countries and Aviation authorities to dissolve Annex II of the basic regulation, are highly questionable. Thereby, a still thriving part of aviation activities and aviation industry would be submitted to uniform, but once again foreseeable not suitable regulations, administered by an agency, that is once again not suitably prepared to deal with such kind of aviation. Comprising a major part of sports aviation into their responsibility, when EASA was set up, recognized now as a mistake, should be avoided for a second time.
(Page 14 of the NPA: "It should be noted that the development of certain activities such as microlights and sailplanes in some countries (e.g. France,

Czech Republic, and Germany) has been closely linked to the less stringent regulation of the activity in those countries.")

Usual notice, replied on such comment, „the NPA does not deal with Annex II, but with Part 21", may be legally correct, but is not regarded to be reasonable in this context. Successful aviation administration should deal with all relevant aspects of their rules and their work, impacting applicants. It is necessary to look at it as a whole and not to get lost in details. The comment response document for this NPA supplies a good chance to sharpen the view of stakeholders and administrators for coherences before amending regulations and the scope of responsibilities. This is the goal of the general comment you are just reading.

response *Noted*

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment *350* comment by: *British Gliding Association*

This is the response of the British Gliding Association

For further detail contact

Pete Stratten
Chief Executive
British Gliding Association

00 44 116 2531051

response *Noted*

comment *356* comment by: *British Gliding Association*

I**mplementation and timescale**

This is a wide area of issues including:

- Are we expected to continue the current laborious, bureaucratic and expensive applications under Part M, for the Sept 2009 deadline, when we are now aware that the ELA approach is planned and committed. How, and when in the future will ELA be mounted? Surely there is a case for further delaying the full compliance date with Part M for ELA eligible aircraft, beyond Sept 2009 to liberalise and accommodate this issue?

- How will 'ELA eligible' sport aircraft, currently being forced to comply with the highly restrictive measures of Part 21 and Part M be liberalised into the ELA process. Can we assume that design to a European code such as CS-VLA or CS-22 (rather than 'industry standards) does not preclude the operation and maintenance of an airframe under the more liberal regime of ELA?

response *Noted*

The Agency has issued an Opinion that alleviates Part-M for general aviation

and proposes an opt-out possibility until September 2009.
Designers of aircraft complying with the ELA criteria will be able to make use on a voluntary basis of the relevant provisions of Part-21 when adopted by the legislator.

comment

360 comment by: *O. Reinhardt / Flightdesign*

General comment

1. According FAA and EAA, the amateur built aircraft which have not any design or manufacturing oversight have an excellent safety record in the US. Design errors are less often reasons for accidents than with certified aircrafts. Maintenance mistakes and pilot errors (mainly during first flights) are more often reason for accidents of amateur built aircraft. In 3 years experience of LSA in USA only one design issue did cause an accident with an aircraft holding also a standard type certificate.

   These are hard statistic data that clearly proofs that aircrafts with design and manufacturing oversight do not automatically have any safety benefit. Statistics show even the opposite. One reason is considered to be that traditional standards (Part 21,22,23,25) are static and not dynamically developing to safety needs like ASTM F2245, F2279 and others do. Another reason is considered that with the significantly enlarged liability when doing self declaration, most companies are out of their own interest much more careful.

2. The proposed changes in the present NPA are not what the light aviation community asked for. We plead for a stand-alone European LSA category, compatible with LSA category in the United States. The proposed amendments represent more an attempt at resuscitation of the conventional general aviation than of a successful integration of the modern (Ultra)lights in the European regulatory frame work. There is a serious risk that the world leading European light aviation industry (represented by the modern Advanced Ultralights) will be destroyed totally by the present proposals.

3. The withdrawal of Annex II must not be related with the introduction of ELA. Within the Annex II a lot of pilots fly, a lot of manufacturers work and a lot of employees earn a living. The Annex II has to be protected at least until ELA has prooved that it can be as successful as the Annex II area.

response

Noted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

368 comment by: *ROTAX*

Comments to NPA 2008-07 ELA process and others

The following text is edited in a way that the comments can be implemented when using the EASA Comment Response tool.

The headlines state the page and the header that is in the CRT in the right column mentioned, so the exact position to hook the comment up to.

The tool offers the possibility to link one comment to several paragraphs - so where it is mentioned that the old comment is applicable, just link the paragraph to the old comment.

General comment

- 1. According FAA and EAA, the amateur built aircraft which have not any design or manufacturing oversight have an excellent safety record in the US. Further more design and manufacturing errors are less than with certified aircrafts. Maintenance and pilot errors (first flights) are more. In 3 years LSA in the US only one design issue did come up and that was with an type certified aircraft.

That clearly proofs that aircrafts with design and manufacturing oversight do not delivery any safety benefit. Statistics show even the opposite. The reason can be that traditional requirements (Part 21,22,23,25) are static and not dynamically developing to safety needs like ASTM 2245,2279 and others.

- 2. The proposed changes in the present NPA were not what the light aviation community asked for. We plead for a stand-aloneEuropeanLSA category,compatible with LSA categoryin the United States. The proposed amendments represent more an attempt at resuscitation of the conventional general aviation than of a successful integration of the modern (Ultra)lights in the European regulatory frame work. There is a serious risk that the world leading European light aviation industry (represented by the modern Advanced Ultralights) will be destroyed totally by the present proposals.

- 3. The withdrawal of Annex II must not be related with the introduction of ELA. Within the Annex II a lot of pilots fly, a lot of manufacturers work and a lot of employees earn a living. The Annex II has to be protected until ELA has prooved that it can be as successful as the Annex II area.

Comment 1
Page 8 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Qualified Entities

negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a).

In addition to this, it must be ensured that a common level is achieved for applicants throughout all the EASA member states. This is mostly the issue from side of the QE´s, when they are approved and supervised by the Authority solely. Involvement of the NAA´s because of varying capabilities in practice shows that this is not the case and this will lead to different safety levels and unfair competition. This problem can be overcome by harmonization of the NAAs under the supervision of EASA.

Comment 2

Page 9 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Design and Production Organization Approvals

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting equivalent approvals and qualifications of companies.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

Comment 3
Page 9 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Design and Production Organisation Approvals

Negative, the proposal as presented here is in the suitable direction, but not reaching far enough.

As is commonly known and transparent through their individual approvals, the existing NAA´s have a sometimes significantly different qualification and capability level, due to whatever reason. As the NPA is formulated, it is up to the NAA of the country, where the company is based, to select, whether they will deal with the combined DOA/POA approval themselves, or whether they delegate their part to the Agency. The reason for this decision is completely left to the NAA. As by widely know experience NAA's have different levels, this will lead to unacceptable different level of safty and unfair competition.
Proposal: It must be clear from the start that combined DOA/POA approvals are dealt with always by the Agency. If this is not in line with the basic regulation, a general agreement between Agency and NAA´s must be achieved when issuing these changes, that NAA´s accept combined DOA/POA applications to be dealt through the agency on the basis of basic regulation 20(2)b(ii).

Comment 4
Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Limiting the number of parts that need a Form 1 - Question 1
Answer to Question:

It is the opinion of this stakeholder, that it is appropriate to limit the possibility to release parts without a Form 1 as described in the NPA to aircraft that are used for non-commercial purposes. However, for all commercial usage it is possible to install parts without explicit Form 1 that come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft

manufacturer upon initial installation.

Comment 5
Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Creation of a Certification Specification for Light Sport Aeroplanes

Comment 2 valid also here.

Comment 6
Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Creation of a Certification Specification for Light Sport Aeroplanes

The slight differences have a noticeable effect to the product:

- - A limitation do Day VFR only is considered not acceptable, as the standard explicitly provides requirements for night VFR (already now) and IFR (upcoming right now) operation. We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.
- - It is in the very nature of the ASTM standard, to evolve, in order to further raise the level of safety and keep the requirements always up to date. For FAA registered LSA it is a must, after a certain transition time, for the applicant to upgrade his design in line with newer standards. In the implementation proposed by EASA, an applicant may choose to stay on the lower level, selling an aircraft of the same category at a lower level of qualification, whilst others are forced to update, as they already have to do when they sell to FAA world.

Comment 7
Page 22 A. EXPLANATORY NOTE - Attachment 2 - Who does what - Initial and Continued Airworthiness - ELA 1 - Organisational Approval

Comments 1 and 2 apply here as well - link same comment to this position.

Comment 8
Page 22 A. EXPLANATORY NOTE - Attachment 2 - Who does what - Initial and Continued Airworthiness - ELA 1 - Accredition and Surveillance

No Comment

Comment 9
Page 26/27 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Comment 2 also valid here

Comment 10
Page 26/27 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart J.

Comment 11
Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart G - 21A.139 Quality System

Comment 2 also valid here

Comment 12
Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart G - 21A.139 Quality System

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart J.

Comment 13
Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart K - 21A.307 Release of parts and appliances for installation

Enhance (c) so that for all commercial usage it is possible to install parts without explicit Form 1 only when they come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

Comment 14
Page 31/32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.359 Design Assurance System

Comment 2 also valid here

Comment 15
Page 31/32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.359 Design Assurance System

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart L.

Comment 16
Page 32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.361 Production Organisational Review

Comment 2 also applies here

Comment 17
Page 32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.361 Production Organisational Review

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart L.

Comment 18
Page 42 - B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General - LSA 3 Aeroplane categories

Comment 2 also applies here

Comment 19
Page 42 - B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General - LSA 3 Aeroplane categories

Negative. A limitation to VFR day is considered as not acceptable, as the standard offers well suitable standards also for VFR night operation and soon IFR operation. There is no real reason visible why this can not be accepted as well in EASA world, like in FAA world.
We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.

Comment 20
Page 5/6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Overview of the proposals included in this NPA

Page 6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 1

Page 7 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 2

Page 26/27 B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".
This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.
Comment 21

Page 4 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Introduction

Page 12 - A. Explanatory Note - V. Regulatory Impact Assessment - 1. Purpose and intended effect

Page 14 - A. Explanatory Note - V. Regulatory Impact Assessment - 4. Impacts (Economics)
Rotax welcomes every activity to harmonize the technical requirements on an EU level. Equal requirements/regulations within all EASA member states will grow the sport aircraft/simple aircraft market and will help to focus on new developments and additional safety features.

Equally important is the harmonization of technical requirements on an international level, every European company working in the sport aircraft/simple aircraft has to work on an international level to gain the critical mass for new developments and a working quality assurance system. In this aspect, we see the role of EASA to be the strong counterpart towards FAA, e.g. for validations of products.

As is widely known, current high performance aircraft within Annex II are on the limits of the definitions under Annex. As is also commonly known, there are a huge number of active pilots and new aircraft under Annex II.

For the success of ELA it is mandatory, that there is a sensible and easy (in sense of effort, time and cost) way to upgrade existing aircraft of Annex II to be used under ELA concept. This applies to both, initial airworthiness and licensing. Licensing will be commented separately in answer to the licensing NPA. Excluding these pilots / owners from the new category will be overcritical for the success of the new system and cannot be justified with any safety mean.

Regarding Initial Airworthiness the proposal is to use a similar mechanism like done in USA when introducing the LSA category. There a limited timeframe was available, where each aircraft owner had the possibility by simple paperwork to get his/her aircraft certified as "experimental" LSA with certain

operational limitations to the new category. There was no new checking of compliance or such, the individual aircraft was accepted on the basis of its existing operational experience. For most aircraft owners this is fully sufficient.

Secondly, it is proposed to also offer for factory produced Annex II aircraft already in service to enhance the scope of usability by showing compliance on the basis of the certification code the aircraft is already certified to, and upgrading it through the manufacturing company to the ELA category, without operational limitations. An example would be that an Ultralight, currently certified under LTF-UL (Germany), or Section S (UK) or UL-2 (Czech) or other equivalent codes become an LSA aircraft, still following original certification code, but with enhanced takeoff mass.

response *Noted*

Please see CRD Part I paragraph 1 and 2 on the two-phase approach. The commenst are very similar to comments expressed by Flight Design: please look athe those comments for the response

comment *377* comment by: *Thomas Wendt*

- 1. The proposed changes in the present NPA were not what the light aviation community asked for. We plead for a stand-alone European LSA category,compatible with LSA category in the United States. The proposed amendments represent more an attempt at resuscitation of the conventional light aviation than of a successful integration of the modern Ultralights in the European regulatory frame work. There is a serious risk that the successful light aviation (represented by the modern Ultralights) will be killed by the present proposals.

- 2. The withdrawal of Annex II must not be related with the introduction of ELA. Within the Annex II a lot of pilots fly, a lot of manufacturers work and a lot of employees earn a living. The Annex II has to be protected until ELA has prooved that it can be as successful as the Annex II area.

response *Noted*

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment *402* comment by: *TECNAM*

1. According FAA and EAA, the amateur built aircraft which have not any design or manufacturing oversight have an excellent safety record in the US. Further more design and manufacturing errors are less than with certified aircrafts. Maintenance and pilot errors (first flights) are more. In 3 years LSA in the US only one design issue did come up and that was with an type certified aircraft.
That clearly proofs that aircrafts with design and manufacturing oversight do not delivery any safety benefit. Statistics show even the opposite. The reason can be that traditional standards (Part 21,22,23,25) are static and not dynamically developing to safety needs like ASTM 2245,2279 and others.
2. The proposed changes in the present NPA were not what the light aviation community asked for. We plead for a stand-alone European LSA category, compatible with LSA category in the United States. The proposed amendments represent more an attempt at resuscitation of the conventional general aviation than of a successful integration of the modern (Ultra)lights in the European regulatory frame work. There is a serious risk that the world leading

European light aviation industry (represented by the modern Advanced Ultralights) will be destroyed totally by the present proposals.
3. The withdrawal of Annex II must not be related with the introduction of ELA. Within the Annex II a lot of pilots fly, a lot of manufacturers work and a lot of employees earn a living. The Annex II has to be protected until ELA has proved that it can be as successful as the Annex II area

response

Noted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

410 comment by: *JIHLAVAN airplanes s.r.o.*

Legend: JA represents JIHLAVAN airplanes, s.r.o.

JA thinks, the same way as LAA ČR, that proposed changes in the present NPA were not what the light aviation community asked for. We asked for a stand-alone European LSA category (covering all basic four areas of aviation activity - Initial airworthiness, Maintenance, Licensing and Operations), compatible with LSA category in the United States. The proposed amendments represent more an attempt at resuscitation of the conventional light aviation than of a successful integration of the light sport aircraft with MTOM 600kg (based on modern micro lights) in the European regulatory frame work. There is a serious risk that the successful light aviation (represented by the modern micro lights) will be killed by the present proposals.

At the same time the Annex II must be protected until this new proposed system will prove that it can be as successful as the Annex II system. Within the Annex II a lot of pilots fly, a lot of manufacturers work and a lot of employees earn living. The possible withdrawal of Annex II must not be related with the introduction of ELA system.

JA supports LAA ČR that technical specifications could work, but we still think that it would be better to have separate stand alone European LSA category which could solve all specific requirements of this category at one place.

The new system which EASA is proposing is quite complicated and will strongly depend on following aspects:

1- EASA fees and charges - if they will stay as they are it will ruin small companies who are now producing LSA for USA - Proposal - use the financing based on small fee from air tickets - the same as is used in the USA.

2- It is not clear how the system of appointing Qualified Entities will work and how much it will cost to run such system. Also the competence between EASA and NAA concerning POA and combined DOA/POA is unclear.

3- Ability of EASA to respond on time - we feel that for light aviation the flexibility of current system is not enough.

4- Functionality of the whole system depends also on results of proposals for Maintenance, Licensing, OPS etc, on this time it is not clear that the whole system will work for light aviation.

5- Very important aspect is that it is not clear how will EASA handle many applications for LSA certification on day one of validity of new rule, in the same

time the QE should be ready as well. It would be appropriate to introduce some grandfather rules for existing aircraft.

6-This new system is designed for company manufactured aircraft only. How would be solved homebuilt from company manufactured kit of aircraft which will receive Type Certificate based on ELA process?

Proposal
We propose to create stand alone European LSA category with MTOM 600kg with common European technical requirements based on ASTM F2245, with European Type Certificate. The rules will be common European but implemented on national level by accredited national sporting organizations and in the countries where such organizations do not exist by relevant NAA.

response *Noted*

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment *411* comment by: *CAA CZ*

The purpose of this NPA as presented is, according to our understanding, to change the system of certification and initial airworthiness of small aircraft. However, the presented document includes only the requirements (amendment of the regulation). The relevant AMC and GM documents, as stated, will be developed later on. Taking this into account, the CAA CZ finds it difficult to present comments to the new concept without the necessary AMC and GM documents available. In our opinion, the presentation of both the requirements and associated AMC and GM material during the single NPA process is a prerequisite for a really comprehensive policy.

response *Partially accepted*

The Agency agrees that AMC and GM are needed to ensure the success of the concept. These AMC and GM will be developed after this CRD is published.

comment *437* comment by: *Light Aircraft Association UK*

In broad terms, the LAA agrees with the proposals to create an ELA process for factory-built light aircraft that would otherwise require the full EASA type approval process. This represents a significant alleviation to the current requirements, although it does not go as far as adopting the full US LSA system.

EASA presentations given during this consultation period (briefing in Prague 25/4/08 and at the Part-M workshop 3/7/08) indicated that `industry standards' would be acceptable means of compliance as well as CSs. The NPA doesn't discuss this possibility.

It's not clear from this NPA what the position is with regards the requirement (or otherwise) for fitting certified engines, propellers and instruments to ELA aircraft. The cost of manufacturing and owning a 1000kg aircraft with a certified engine, propeller and instruments would be significantly greater than a 1000kg aircraft with an uncertified engine, propeller and instruments. Airworthiness codes such as CS-VLA do not specifically call up a certified engine, for instance: it merely requires that the engine be approved to CS-22 subpart H. Would ELA aircraft issued with CoAs be required to fit certified equipment?

It is important to read these proposals with an eye on what might be to come for aircraft currently residing in Annex II. This is likely to become the basis for aircraft such as factory-built microlights.

If these proposals are compared with the prevailing microlight regulations in the UK (arguably the most regulated microlight regime currently in Europe), then they represent a significant increase in regulatory and financial burden on the manufacturers, maintainers and operators if these rules were to be applied to them. As and when microlights are taken out of Annex II, it will be imperative to formulate a further set of derogations from Part 21 and Part M to allow these aircraft to continue to operate in a way commensurate with the low risk that they represent to both the operator and 3rd parties.

The full impact of this NPA cannot be assessed until the issue of the Operations NPA, which will help complete the picture of how the whole ELA system will work.

response

Partially accepted

The NPA does not discuss the use of other airworthines codes than the published CS because it is a possibility that exists already in Part-21: please refer to Part-21.17.
It has become increasingly clearer that the requirement for engine and propellers to be type certificated (as required by Article 5 of the Basic Regulation) may be a show stopper (Fees and Charges; organisation approvals for non aviation manufacturers) for LSA, powered sailplanes, ELA1 airships and possibly VLA. The proposal would be to issue restricted type certificates in such cases: this will be of no consequences for such aircraft as the draft operational rules envisage that the only limitations for the use of an aircraft are those included in its data sheet. Of course, the possibility to issue type certificates would remain open keeping in mind that the demonstration of capability for engine and propellers in such aircraft would be a certification plan.

If the manufacturer of an aircraft originally classified in Annex II wishes to increase the Maximum Take-Off Mass of the design beyond the limit of Annex II, it will have to comply with the requirements applicable to ELA, including design and production requirements.

The NPA for OPS has been published in January 2009 and the CRD is planned between mid October 2010 and January 2011.

comment

443 comment by: *P&M Aviation*

Whilst we welcome the current proposals as a step forwards at the present time they leave more questions than answers.
As a UK manufacturer of Weight Shift Aircraft, currently classed as Microlight Aircraft in the UK, we are unsure exactly how much of the proposals apply to us. Yes we do sell LSAs in the USA although at the present time the weight limits meet UK standards. We also import aircraft from Europe and for UK operation have to comply with the UK CAA Airworthiness Requirements and Standards. What is happening to Annex II? Assuming Annex II stays we will be in the unusual position where a UK micolight will be built to a more stringent set of airworthiness requirements than a heavier Easa approved aircraft. If the LSA proposals are to be adopted then some additional provisions need to be

implemented to cover Annex II microlights, this will also need to include all aspects of Manufacturing and Quality Control to ensure that the same standards are applied throughout Europe. For the Quality and Manufacturing controls of such Annex II aircraft then we would suggest adopting the same standards as required for the USA, which is the ASTM Self Declaration standards.A more sensible proposal would be to adopt the ASTM LSA requirements for all aircraft upto 600 or 750kg for both the design and manufacturing. Note that when proposing the ASTM Standard F2245 this only allows for fixed wing aircraft and therefore all such references to this standard needs to include reference to F2317 or an amended version of.

If Annex II stays as is, then Europe will remain divided for a large number of aircraft and the opening comments in the introduction will still apply. Microlight aircraft will still flourish in Europe but heavier aircraft will slowly disappear, and some of the European Manufacturers will still end up with two products one for the USA and one for Europe, which could ultimately lead the manufacturer to move to the USA or some other country of convenience.

response

Noted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

445 comment by: *Peter VON BURG*

We agree with the Agency that a better regulation, especially for initial airworthiness is required. No other field in the technical world has shown such a slow technical progress in the last 30 years. The technology in engines and aircrafts in General Aviation has remained more or less the same since the 1970, not to compare with automotive or other, less regulated industries.
Thus the proposed changements in the present NPA are more than necessary and are a step into the right direction.

However, based on the experience with Ultralight aircrafts we feel that the changements for the lowest category will show the same impact as the introduction of CS-VLA, almost not visible. Thus we think a regulation similar with US LSA is required within ELA1.

A risk based approach would demonstrate, that for small, no complex aircrafts the risk related with initial airworthiness is small compared to human factors, especially there are only negligible risks for innocent third parties.

response

Noted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

447 comment by: *Rybar Jirka*

Domnívám se, že změny navrhované v tomto NPA nejsou v souladu s tím, co potřebujeme a co jsme požadovali. Chtěli jsme samostatnou kategorii evropské LSA (pokrývající všechny čtyři základní oblasti leteckých aktivit - letovou způsobilost, údržbu, licencování a provoz) odpovídající americké LSA. Navržené dodatky mohou způsobit likvidaci velmi úspěšné oblasti lehkého letectví, kterou představují moderní UL letadla.
Současně s tímto návrhem ale musí být chráněn současný Annex II, minimálně do doby než se nový sytém ukáže jako funkční a stejně úspěšný jako systém založený na Annexu II. Dnes je mnoho pilotů, výrobců a zaměstnanců závislých na správné funkci systému Annex II. Jeho možné změny nemohou

být svazovány s představením systému ELA.
Nedomnívám se, že představené technické specifikace mohou být funkční a proto je dle mého názoru nutné vytvoření samostatně stojící evropské LSA, která bude řešit všechny specifické problémy této kategorie z jednoho místa se znalostí potřeb této kategorie letectví.
Navrhovaný systém považuji za velmi komplikovaný, protože zajištění jeho funkčnosti je možné pouze při splnění všech dále uvedených podmínek:
- minimalizaci navržených poplatků EASA - jejich stávající výše je likvidační pro lehké letectví.
- při stanovení mechanismu akreditace QE je nutné řešit požadavky na získání QE již existujících evropských výrobců LSA, kteří již vyrábějí a stávající letadla nějakým způsobem pod navržený systém převést bez vynakládání příliš vysokých prostředků
- navrhovaný systém EASA musí být nastaven tak, aby byly funkční všechny části systému současně - tzn. i Údržba, Provoz, Licencování atd.
- ne všechna letadla jsou vyráběna pouze továrně, musí být vyřešena i amatérská stavba z továrně vyrobených stavebnic letadel, která budou mít typový certifikát na základě procesu ELA

Proto navrhuji:
Vytvořit samostatně stojící evropskou kategorii LSA s jednotným Evropským technickým předpisem založeným na ASTM F2245, s jednotným Typovým certifikátem. Přepisy budou jednotné evropské ale implementované na národní úrovni pověřenými národními sportovními organizacemi a v zemích, kde takové organizace neexistují, příslušným NAA. Pouze tento systém zajistí možnost letecké činnosti pro všechny bez vynakládání nadměrných finančních částek a svoboda přístupu k létání tak nebude omezena pro tuto kategorii nadměrně přísnými návrhy EASA.

response

Noted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

466 comment by: *Tegelbeckers*

1. The proposed changes in the present NPA were not what the light aviation community asked for. We plead for a stand-alone European LSA category, compatible with LSA category in the United States. The proposed amendments represent more an attempt at resuscitation of the conventional light aviation than of a successful integration of the modern Ultralights in the European regulatory frame work. There is a serious risk that the successful light aviation (represented by the modern Ultralights) will be killed by the present proposals

2. The withdrawal of Annex II must not be related with the introduction of ELA. Within the Annex II a lot of pilots fly, a lot of manufacturers work and a lot of employees earn a living. The Annex II has to be protected until ELA has prooved that it can be as successful as the Annex II area.

response

Noted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

483 comment by: *light-wings Oliver Liedmann*

- 1. The proposed changes in the present NPA were not what the light aviation community asked for. We plead for a stand-aloneEuropeanLSA category,compatible with LSA categoryin the United States. The

proposed amendments represent more an attempt at resuscitation of the conventional light aviation than of a successful integration of the modern Ultralights in the European regulatory frame work. There is a serious risk that the successful light aviation (represented by the modern Ultralights) will be killed by the present proposals.

- 2. The withdrawal of Annex II must not be related with the introduction of ELA. Within the Annex II a lot of pilots fly, a lot of manufacturers work and a lot of employees earn a living. The Annex II has to be protected until ELA has prooved that it can be as successful as the Annex II area.

response

Noted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

500 comment by: *aeroklaus*

The proposed changes in the present NPA were not what the light aviation community asked for. We plead for a stand-alone European LSA category, compatible with LSA category in the United States. The proposed amendments represent more an attempt at resuscitation of the conventional light aviation than of a successful integration of the modern Ultralights in the European regulatory frame work. There is a serious risk that the successful light aviation (represented by the modern Ultralights) will be killed by the present proposals.
The withdrawal of Annex II must not be related with the introduction of ELA. Within the Annex II a lot of pilots fly, a lot of manufacturers work and a lot of employees earn a living. The Annex II has to be protected until ELA has prooved that it can be as successful as the Annex II area.

response

Noted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

522 comment by: *Austro Control GmbH*

This NPA is generally supported, however there is a need to alleviate the certification for the lower end of aviation industry.
The NPA itself is very complex and contains a mixup of certification processes, certification specifications and organisation approvals. Furthermore there are too much organisations involved which need more coordination in-between.

A lot of existing regulations are not touched which would need specific attention. In general, it seems that this NPA is not properly developed in the overall concept

"Simple Aircraft need Simple Rules". This is not accomplished. The current rules are too complex and will not be understood by the customer. There must be an less complex and less bureaucratically approach to this subject.

response

Noted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

525 comment by: *Austro Control GmbH*

Comment:
Determination of the exact noise level is complex and time consuming and expensive. The basic principle is that the ICAO noise level must be fulfilled. This may be done by simpler methods if it is within the ICAO limits.
Proposal :
An ELA 1 aircraft does not need a noise certificate, it must be demonstrated during certification that the ICAO noise level is fulfilled.

response

Not accepted

Currently Regulation (EC) No 216/2008 refers to ICAO Annex 16 as essential requirements. So, what the commentator proposes is not currently possible. Concerns as expressed by the commentator could be addressed in NPA 2008-15 process and in possible ensuing implementing rules.
Newly certificated aircraft according to the ELA 1 process will need to have a noise certificate issued in accordance with ICAO Annex 16, where applicable.

comment

535 comment by: *Austro Control GmbH*

Subpart F
Comment
This Subpart is not valid for an combined approval.

Proposal
Change 21A.121 and add the following:
(c) This subpart is not eligible for Organisations with an Combined approval under ...

response

Accepted

Text will be modified as proposed

comment

539 comment by: *Aero-Club of Switzerland*

The Aero-Club of Switzerland is of the opinion that the ELA process is the right approach. There are, however, areas in which the complexity of the regulations still is too high. The Organisation favours non-complex solutions for non-complex aircraft not engaged in commercial operations, especially for aircraft normally not operated under IMC. Unfortunately what the Agency proposes is still too complex.

In our view it is necessary to keep state-involvement at the lowest possible level. The whole aviation community will enhance safety-thinking by a maximum delegation of responsibility to the people who fly and who maintain all the non-complex aircraft not engaged in commercial operations normally not operated under IMC.

response

Noted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

540 comment by: *John Tempest*

Attachment #1

The concept of the Qualified Entity is introduced by this NPA and the revision to the Basic Regulation, which is very welcome. However, it is essential that EASA

publish an NPA for the implementing rules for a QE, which will cover the approval process, together with the privileges granted to the QE.

A fundemental part of the QE's privileges should be to have all reports and recommendations from them accepted without further showing by EASA and/or the CA(s)/NAA as applicable. Oversight by EASA and CA(s)/NAA should be by audit programmes only.

de Havilland Support suggestions for an implimenting rule for the Qualified Entity is enclosed with this comment.

response *Noted*

Proposal 1 and 2.
Please see CRD Part I paragraph 6 on qualified entities.
Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment *546* comment by: *UK CAA*

Only the first page is numbered. It would be helpful in compiling comments if the remaining pages of the NPA were numbered.

response *Accepted*

Next time the NPA pages will be numbered.

comment *580* comment by: *klaus M*

(General comments)

1. The proposed changes in the present NPA are not what the light aviation community asked for.
We plead for a stand-alone European LSA category, compatible with LSA category in the United States.
The proposed amendments represent more an attempt at resuscitation of the conventional light aviation than of a successful integration of the modern Ultralights in the European regulatory frame work.
There is a serious risk that the successful light aviation (represented by the modern Ultralights) will be killed by the present proposals.
2. The withdrawal of Annex II must not be related with the introduction of ELA. Within the Annex II a lot of pilots fly, a lot of manufacturers work and a lot of employees earn a living. The Annex II has to be protected until ELA has prooved that it can be as successful as the Annex II area.

response *Noted*

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment *600* comment by: *European Sailplane Manufacturers*

Regarding the rulemaking activity MDM.032 which led to this NPA 2008-07 some observations from the side of the European sailplane manufacturers have to be given here:

1. The process started under the headline "A concept for better regulation in General Aviation".

It has to be stated that unfortunately the result within NPA 2008-07 offers only slightly improved regulation as only some amendments to Part 21 are been proposed instead of a general re-thinking about the "quo vadis" for General Aviation in the sense of small aircraft.

2. EASA and MDM.032 started with the observation that General Aviation in much less regulated environments has not demonstrated lower levels of safety and that the danger from small aircraft in general are negligible against third parties.
   This observation is not new and has been made around the globe again and again but it has not led to a proposal in NPA 2008-07 of really less stringent regulation in General Aviation.
3. The European sailplane manufacturers are definitely one of the oldest and most experienced organisations representing this sector of small aviation.
   Nevertheless repeated offers by the sailplane manufacturers to direct participate in MDM.032 were not accepted by EASA rulemaking. Instead it was deemed to have sufficient knowledge "on board" by multiple representation from the microlight and aero-club sectors.
   From the perspective of the sailplane manufacturers this is strange and sadly the outcome of the work does really not represent the experiences existing manufacturing companies working now some years under EASA rules could have offered.
4. Therefore NPA 2008-07 only partly touches obstacle #1 in certification of a new product:
   Inclusion of several administrative steps until the product is fully certified.
   This is the result of the need for the applicant to deal now typically with a) EASA programmes department, b) EASA certification department, c) external certification managers (e.g. at a NAA), d) in case of non-conventional products: EASA rulemaking.
   The proposed inclusion of Qualified Entities (QE) will only improve this situation if the applicant has only to deal with the QE instead of having now an additional administrative counter-part.
5. The next real existing problem of regulation is costs.
   EASA is the first European agency with full executive rights and has been created to improve the economical power of the European Aerospace Aviation industry (aka EADS and other "big aviation players") plus harmonizing safety standards especially in international aviation.
   This is an important and fully legitimate goal.
   This has also resulted into an Agency which is quite complicated and regulation driven (even with a designated Rulemaking Department) which means that it is expensive to operate.
   Sadly the European politicians did not consider safety in aviation to be an topic which should be financed by EC funds so it was decided that "industry" should pay at least for the certification parts of EASA.
   This new Agency is not really good suited working with the small companies representing small aviation but these small companies have now also to pay the resulting costs.
   Every time when the EASA fees & charges regulation is been discusssed the small aviation community offered these insights - the standard counter has been "this is the political will in Europe".
   Now a so called better regulation is been offered but no word is included to explain how it could be more affordable.
   Instead every time when a small company tried to explain how several thousand Euros in fees could mean the difference of economic welfare or not it has been given the answer that such small prices must not be

a problem.
(Nota bene this answer is given be EASA representatives who bill 225 Euro per hour according to the EASA fees & charges regulation which is certainly the highest hourly rate in the small aviation sector by a factor of at least 3!)

6. Related to costs is the problem of processing time for certification tasks. It is true that all single administrative parties (EASA departments and NAA) try to do their work as fast as possible. Nevertheless there are now many such parties (see observation 4). This results into much longer processing times. This is even more visible when changes, STC or repairs have to be certified.
   It has to be seen that such delays are quite costly for manufacturers - especially if such a delay means a later date to get onto the market with the new or changed product.
7. Regarding the certification of organisations (production, design and maintenance) also the situation has not improved by introduction of EASA:
   First now the applicant has to deal now with different authorities (design: EASA, production & maintenance: NAA) which complicates communication and adds additional costs and complexity.
   Second the rules for organisation approval have become mor complicated.
   Third on the side of EASA (and some NAA) the opportunity was used to apply big aviation standards to the certification processes of small companies. Endless man-hours have been spent by trying to explain to the regarding authority representatives that certain rules are much over-the-top for small companies having a typical staff number of less than ten regarding decision makers and/or engineers.
   And last but not least the authorites are deaf to the complaint that the need for approval of "just annother organisation manual" describing again the same organisation now doing still the same things is an investment that such small companies cannot do every few years.

In summary the European sailplane manufacturers cannot say that introduction of EASA was very beneficiary for their bussiness.
The now European-wide certification for the products is more than balanced by the added costs and problems described above.

Neither the market-share world-wide nor the safety level has increased for the gliding sector due to the introduction of EASA.

Nevertheless EASA NPA 2008-07 is offering only a slightly improved version of existing regulation as a "better regulation for General Aviation".

The European sailplane manufacturers do not see a big improvement and are certainly disappointed.
They have not been consulted - because they know the weaknesses of the existing system?

Nevertheless the sailplane manufacturers offer their comments to the single points listed in this NPA hoping that some re-work of the proposed regulation will at least help to improve the existing situation.

response

Noted

The criticism against the Agency is outside the scope of this NPA. In addition, the Agency has brought significant advantages such as one type certificate only instead of multiple certificates with the possibility of national variants. The

European Sailplanes manufacturer association was not included in the drafting group because we felt that design and manufacture issues were sufficiently covered by highly experienced EASA and National Authorities colleagues. They have had the opportunity to comment during the consultation period and based on its input the association was invited to join the review group. This NPA is a genuine attempt to address the problem of a "one size fits all" European regulation and to simplify certification processes which should reduce costs. Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

613 comment by: *Cessna Aircraft Company*

- Cessna recommends that a stand-alone European light-sport aircraft (LSA) category be established as it offers the greatest opportunity for promoting aviation within Europe.

- Section A, Subpart B, 21A.14, Demonstration of Capability:

o Cessna fully supports the ELA 2 definition for CS-LSA Aeroplane "An aeroplane, sailplane, or powered sailplane with MTOM less than 2000 kg that is not classified as complex-motor-powered aircraft".

- The FAA definition of a LSA aircraft includes this language: "(6) A single, reciprocating engine, if powered".

- EAA is in the process of working in partnership with the FAA to change this language to allow greater flexibility in the choice of engines. The aviation engine industry and individual innovators are rapidly developing both pure electric aircraft motor technologies and gas-electric hybrid aircraft engine technologies. It is this advancing technology that the current FAA regulatory language of "reciprocating" prohibits. It is Cessna's hope that this issue will be resolved in the very near future.

- o § The wording in your proposed LSA specifications supports these evolving environmentally friendly aircraft engine technologies.

response

Noted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

624 comment by: *Martin Josef Warken*

(General comments)

- 1. The proposed changes in the present NPA were not what the light aviation community asked for. We plead for a stand-aloneEuropeanLSA category,compatible with LSA categoryin the United States. The proposed amendments represent more an attempt at resuscitation of the conventional light aviation than of a successful integration of the modern Ultralights in the European regulatory frame work. There is a serious risk that the successful light aviation (represented by the modern Ultralights) will be killed by the present proposals.

- 2. The withdrawal of Annex II must not be related with the introduction of ELA. Within the Annex II a lot of pilots fly, a lot of manufacturers work and a lot of employees earn a living. The Annex II has to be protected until ELA has prooved that it can be as successful as the Annex II area.

response

Partially accepted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

664 comment by: *DGAC France*

1a. COMMENT TO :

- ü **Explanatory Note**

1b. AFFECTED PARAGRAPH :

2. COMMENT:

La note d'explication parle d'une certification « allégée » des ELA mais ne précise pas quel serait le niveau d'implication des autorités (EASA, entité qualifiée) dans la vérification de conformité. La DGAC recommande de créer un paragraphe dans la section B de la Part 21 qui définirait le niveau d'implication de l'entité menant la certification (AESA ou entité qualifiée) et de créer une procédure AESA plus détaillée.
La DGAC recommande que ce nouveau paragraphe 21.B.XX contienne au moins les obligations suivantes :

Pour un aéronef ELA 2

- vérification de la tenue de la structure et les limites de vie structure
- - vérification des performances et des qualités de vol;
- - vérification de la certification du système carburant;
- - vérification de l'avionique pour un aéronef IFR;
- - vérification de toute conception nouvelle ou innovante.

Pour un aéronef ELA 1

- - vérification de la tenue de la structure;
- - vérification des performances et des qualités de vol;
- - vérification de toute conception nouvelle ou innovante.

Si l'EASA ne précise pas le niveau de vérification souhaité pour les ELA 1,alors l'implication de l'entité certifiante sera limitée à un avis sur le programme de certification.

Pour un moteur et une hélice à pas variable

- - vérification des rapports d'essais
- - vérification de toute conception nouvelle ou innovante.

Pour une hélice à pas fixe

- - vérification de toute conception nouvelle ou innovante.

Courtesy translation:
The explanatory note speaks about a simplified procedure but does not explain how much would be involved the Authority (EASA or qualified entity) in the conformity assessment verification. DGAC-F recommends the creation of a paragraph in section B of the Part 21 which would define the implication of the certifying body (EASA or QE) and to develop a more detailed EASA procedure.
DGAC-F recommends that such a new paragraph 21.B.xx contains the following elements for the authority involvement:

For an ELA 2 Aircraft

- - check of structure integrity and life limited items.
- - check of performances and flight qualities
- - check of fuel system
- - check of avionics for an IFR aircraft

- - check of any new or innovative design

For an ELA 1 Aircraft

- - check of structure
- - check of performances and flight qualities
- - check of any new or innovative design

If EASA does not specify the required conformity level for ELA 1, the certifying body would limit its job to a recommendation on the certification programme.

For an engine and a variable pitch propeller

- - check of the tests reports
- - check of any new or innovative design

For a fixed pitch propeller

- - check of any new or innovative design

response *Partially accepted*

The Agency agrees that ELA certification procedures are needed and will develop them in due course.

comment *667* comment by: *DGAC France*

1a. COMMENT TO :

- ü **Draft Opinion(s)**

Amendment to Commission Regulation (EC) No. 1702/2003 Part 21

1b. AFFECTED PARAGRAPH :

21A.14, 21A35, 21A.47, 21A.96, 21A.112B, 21A.116, 21A.163, 21A.307, 21A.351 à 21A.385, 21A.432B, 21A.436, 21A.439, 21A.441, 21A.710 (a), 21A.801, 21A.804, 21A.805 et 21B.220 à 260

2. COMMENT:

La DGAC-F soutient ces propositions.

Courtesy translation:

DGAC F supports those proposed changes.

response *Accepted*

The Agency thanks the commentator for their support.

comment *668* comment by: *DGAC France*

1a. COMMENT TO :

- ü **Draft Opinion(s)**

Amendment to Commission Regulation (EC) No. 1702/2003 Part 21

1b. AFFECTED PARAGRAPH :

21A.16A:

2. PROPOSED TEXT:

La DGAC-F propose que soit ajoutée une AMC 21A.16 A comme suit
Courtesy translation:
DGAC-F proposes the creation of an AMC 21A.16 A as follows:

AMC 21A16A Airworthiness codes
For the aeroplanes defined in 21A.14 (b) and (c), the FAR 23 amendment 7 is an acceptable airworthiness code.
For the engines defined in 21A.14 (b) and (c), the CS-22 subpart H or the appendix B of CS-VLR for rotorcraft engines are acceptable airworthiness codes.
For the propellers defined in 21A.14 (b) and (c), the CS-22 subpart J is an acceptable airworthiness code.

3. JUSTIFICATION:

Le code FAR 23 amendement 7 est la base de certification qui a été utilisée pour la grande majorité des avions utilisés actuellement en aviation de loisir. Cette règle technique a donné toute satisfaction au niveau de la sécurité des vols. Les exigences rajoutées depuis lors n'ont pas démontré d'amélioration notable de niveau de sécurité alors qu'elles ont engendré des coûts de développement et de certification importants voire prohibitifs pour certains projets. Si le règlement de certification CS-23 est imposé aux avions ELA non conformes à la définition du VLA, cette nouvelle catégorie risque d'être inutile du fait d'essais coûteux.
De même les règlements CS 22 sous parties H et J et l'appendice B du CS-VLR ont démontré qu'ils étaient suffisants pour certifier les moteurs et hélices des aéronefs légers.

Courtesy translation:
FAR 23 amendment 7 code is the certification basis that has been used for the vast majority of the leisure aviation aeroplanes. It achieved satisfactory safety level. The supplementary requirements added in the following amendments did not substantially increase safety level. They created additional development and certification important costs or even led to drop some projects. If the CS-23 code is mandatory for the ELA aeroplanes not corresponding to VLA definition, costly tests will jeopardize the interest of this new category.
For the engines and propellers, CS 22 sub-parts H et J et CS-VLR appendix have demonstrated their effectiveness for light aircraft engines and propellers certification.

response *Accepted*

- Please see CRD Part I paragraph (b) 2 the criteria for ELA 1 and ELA 2.

comment *687* comment by: *DSvU*

As said before Danish Soaring Association appreciates the work done by the Agency to comply with what the non commercial industry and sporting organisations ask for. We find the establishment of the ELA concept is a huge step towards what is wanted and we highly support the idea.

response *Accepted*

The Agency thanks the commentator for their support.

comment *701* comment by: *procomposite*

- 1. According FAA and EAA, the amateur built aircraft which have not any design or manufacturing oversight have an excellent safety record in the US. Further more design and manufacturing errors are less than with certified aircrafts. Maintenance and pilot errors (first flights) are

more. In 3 years LSA in the US only one design issue did come up and that was with an type certified aircraft.

That clearly proofs that aircrafts with design and manufacturing oversight do not delivery any safety benefit. Statistics show even the opposite. The reason can be that traditional standards (Part 21,22,23,25) are static and not dynamically developing to safety needs like ASTM 2245,2279 and others.

- 2. The proposed changes in the present NPA were not what the light aviation community asked for. We plead for a stand-aloneEuropeanLSA category,compatible with LSA categoryin the United States. The proposed amendments represent more an attempt at resuscitation of the conventional general aviation than of a successful integration of the modern (Ultra)lights in the European regulatory frame work. There is a serious risk that the world leading European light aviation industry (represented by the modern Advanced Ultralights) will be destroyed totally by the present proposals.

- 3. The withdrawal of Annex II must not be related with the introduction of ELA. Within the Annex II a lot of pilots fly, a lot of manufacturers work and a lot of employees earn a living. The Annex II has to be protected until ELA has prooved that it can be as successful as the Annex II area.

response

Partially accepted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

704 comment by: *Europe Air Sports, VP*

Europe Air Sports is an association of the European National Aero Clubs, and European Air Sports Unions, with the objective to co-ordinate regulatory matters in Europe. EAS is not directly involved in manufacturing and certification of the aircraft but as a consequence of a simplified certification process we expect aircraft to become cheaper and therefore more affordable to a larger number of European citizens. That is why we have an interest in this NPA 2008-07.
We expect that most comments will be done by manufacturers or individuals who are building and manufacturing aircraft concerned by this NPA. EAS will therefore not comment detailed technical proposals of this NPA. EAS will mainly focus on NPA for Licensing, Medical Standars and Operations where most of our members have their interests.
Nevertheless we appreciate the effort which EASA has put into this NPA.

response

Noted

The Agency thanks the commentator for their support.

comment

722 comment by: *European Microlight Federation*

The NPA says that the proposals included do not apply to microlights. However Regulation (EC) 216/2008 can only be referring to microlights when it says "*...proportionate measures should be taken to increase generally the level of safety of recreational aviation. Consideration should in particular be given to aeroplanes and helicopters with a low maximum take-off mass and whose performance is increasing, which can circulate all over the Community and which are produced in an industrial manner. They therefore can be better*

regulated at Community level to provide for the necessary uniform level of safety and environmental protection."
This suggests the risk that some microlights may at a future time find themselves transferred to the ELA1 category. For this reason the microlight community is obliged take a strong interest in this NPA.
The NPA cites "the development of the microlight movement in Europe" in a way which implies that microlights have been a European-driven success, which is true.
The NPA then points out the anomaly that "the majority of LSA types are of European origin but these cannot operate legally in the EU", implying that this must be put right, which it must.
The NPA affirms the widespread belief that "the regulatory framework applied to recreational aircraft has become progressively too heavy for the nature of the activities involved and places too high a regulatory burden on designers and manufacturers", which is indisputable.
However, by ignoring the view widely held amongst those who fly and manufacture aircraft at the lighter end of the spectrum, that the upper MTOM limit of ELA1 at 1,000 kg is too high, and by failing to create a separate category of up to 750 kg or 600 kg, the NPA condemns the new ELA1 category it proposes to create to failure.
This NPA cannot be viewed alone but must be taken with the NPAs on Licensing, Continuing Airworthiness and Operations. Taken as a whole these regulations benefit the heavy end of the ELA1 spectrum while offering nothing to the light end. The greatest beneficiaries will be those who wish to manufacture and fly light 4-seater aircraft. The proposals will also benefit those who fly traditional light aeroplanes, although this benefit will not halt their continuing decline as a result of increased purchase and operating costs when compared with LSA and microlight aircraft.
On the other hand, the spectrum of proposed regulations will effectively bring to an end the period of growth European recreational aviation has enjoyed in the past 20 years because it will prevent the creation of exciting new aircraft manufacturing companies made possible initially by the light regulation of microlights and later boosted by the strong demand from the US for LSA. These new regulations will add cost and bureaucracy and bring no benefit.
If these new regulations were to be successful they would lead to massive demand from pilots of high performance microlights to transfer their aircraft from the microlight register outside of EASA control to the ELA1 register and EASA. This will not happen. Pilots will be far happier where they are, where the cost and bureaucracy are far less of a burden.
If these new regulations were to be successful they would lead to an explosion in the growth of exciting new aircraft manufacturing companies. This will not happen. Instead, the introduction of these regulations will mark the end of a period of growth. Future growth will come from those manufacturers whose success has been permitted by the light microlight regulations; their growth will be into heavier and four seat aircraft and their market will continue to be the USA.
In short, this set of NPAs represents a failure on behalf of Europe to capitalise on European success. It shows how regulators can, with the best of intentions, destroy the very things they seek to protect and advance. If these regulations are introduced as proposed we will look back in 10 years time with nostalgia on the glorious period at the end of the millennium when, for a brief decade, European aviation had its golden moment of growth before the regulators put a stop to it.
It is not too late to prevent this. Instead of reinventing the wheel in this way EASA should take the best from microlighting and the US LSA and create aviation-friendly regulations which make the microlight community rush to

embrace EASA. **It must split the proposed ELA1 category into two parts, probably at the 600 kg point, although higher at 700 kg or 750 kg would also work. It should then start again and produce airworthiness, licensing and operations regulations for this lighter category that industry finds acceptable and even attractive**. It should start with that blank sheet of paper we were promised at the start of the MDM032 process. However, this time the sheet of paper should really be blank.
This would create a new sub-1,000 kg structure with ELA1 Heavy (above, say, 600 kg), ELA1 Light (probably corresponding to the US LSA) and Microlights (with the weights as in paragraph e of Annex II).
I have no doubt that some in EASA will say that this is too complicated a solution but in the view of many in recreational aviation these critics will be the people who put bureaucratic convenience before the future of sports and recreational aviation in Europe.
Fundamentally, EASA should rethink its approach to the light end of recreational aviation. It should examine what already works. It should listen to those it seeks to regulate as these people have not done a bad job. Lightly regulated microlights do not all fall from the skies. Stories of widespread fatal accidents do not fill our newspapers. There is no safety case for the steps EASA is proposing; the microlight airworthiness-related fatal accident statistics amply demonstrate what can be achieved under light regulation.
In the meantime, the microlight community continues to fear EASA. We find ourselves unable to imagine life under EASA control. As a result we will resist the advances of EASA for as long as possible or until EASA fundamentally rethinks its approach to the light end of sports and recreational aviation.

response *Partially accepted*

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment *723* comment by: *Oliver*

The proposed changes in the present NPA were not what the light aviation community asked for. We plead for a stand-alone European LSA category, compatible with LSA category in the United States. The proposed amendments represent more an attempt at resuscitation of the conventional light aviation than of a successful integration of the modern Ultralights in the European regulatory frame work. There is a serious risk that the successful light aviation (represented by the modern Ultralights) will be killed by the present proposals.

response *Noted*

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment *724* comment by: *Oliver*

The withdrawal of Annex II must not be related with the introduction of ELA. Within the Annex II a lot of pilots fly, a lot of manufacturers work and a lot of employees earn a living. The Annex II has to be protected until ELA has prooved that it can be as successful as the Annex II area.

response *Noted*

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment 749 comment by: *Dr. med. Waltraud Wahler-Brenk*

Auszug von der DULV-Homepage, unter „EASA stellt ELA und Lizenzen vor!":
Dem ursprünglichen Wunsch der europäischen Ultraleichtflieger zur Adoption der amerikanischen LSA-Klasse wollte die EASA nicht entsprechen. Stattdessen sollte eine neue Kategorie in der nicht kommerziellen Luftfahrt kreiert werden, die dann Luftfahrzeuge bis 2000 kg MTOM und Ballone einschließt. Diese Kategorie soll den Namen ELA I (bis 1000 kg) und ELA II (bis 2000 kg) bekommen. Neben den existierenden ULs (bis 472,5 kg - weiterhin national geregelt) sollen damit **„die schweren ULs"**, die VLA, Segelflugzeuge, Motorsegeler, Ballone und Luftschiffe in dieser Kategorie unter der EASA-Regie zusammengefaßt werden.

Hiermit komme ich Ihrer Aufforderung nach meinen Kommentar zu der o.a. NPA abzugeben. Dieser Kommentar bezieht sich im Wesentlichen auf die **„schweren ULs"**.

Als Halter eines **„schweren ULs"** fliege ich seit Jahren teilweise illegal. Gemeinsam mit anderen Haltern (knapp 40 ULs dieser Typenreihe) versuchen wir bisher total vergeblich unsere ULs aus dieser Illegalität herauszuführen. Dazu wurden schriftlich der/das

Deutsche Aero Club eV., LSGB, Braunschweig,
Luftfahrt-Bundesamt (LBA), Braunschweig,
Bundesministerium für Verkehr, Bau und Stadtentwicklung (BMV), Bonn,
Bundesstelle für Flugunfalluntersuchung BFU, Braunschweig,
Deutscher Ultraleichtverband (DULV) eV., Großerlach-Morbach,

ersucht und entsprechende Anträge verfasst und gestellt.

Sämtlichen vorgenannten Institutionen bzw. den Verantwortlichen in diesen Institutionen ist diese Illegalität und der unhaltbarer Zustand definitiv und positiv bekannt. Trotz dessen wird es durch Schweigen abgelehnt, unsere ULs aus der formalen Illegalität herauszuführen, obwohl dies technisch nachweislich möglich ist. Anhand der Rechtsordnung der Bundesrepublik Deutschland ist eine solche Haltung nicht zu rechtfertigen. Alle betroffenen Halter betrachten diese Untätigkeit der Verantwortlichen als unterlassene Hilfeleistung.

Unabhängig davon werden in Deutschland hunderte von ULs anderer Baureihen ebenso illegal betrieben. Sämtliche betroffene Halter befinden sich gleichlautend straf- und zivilrechtlich ohne Notwendigkeit in bedenklicher Situation.

Beim Luftfahrt-Bundesamt (LBA), Braunschweig, habe ich, neben weiteren Haltern, mit Schreiben vom 8.6.2008 einen Antrag auf Zulassung meines UL zur „Beschränkten Sonderklasse" gestellt, um auf diesem Wege zu versuchen, unsere ULs aus dieser Illegalität herauszuführen. Mit Schreiben des Luftfahrt-Bundesamtes (LBA) vom 30.6.2008 wurde mir gegenüber diesem Antrag „aus rein formalen Gründen" nicht entsprochen.

Sämtlichen Verantwortlichen in den vorgenannten Institutionen ist bekannt, daß mein UL und andere ULs technisch exakt baugleich sind mit Exemplaren welche als LFZ in der „Beschränkten Sonderklasse" (Experimental, E-Zulassung) bereits seit Jahren zugelassen und beim LBA, Braunschweig, registriert sind. Mithin werden miteinander baugleiche LFZ und ULs bewußt

unterschiedlich behandelt. Hinzu kommt, daß die LFZ in der „Beschränkten Sonderklasse", die tatsächlich ULs sind, zu 51 % im Selbstbau hergestellt sind und mein/unser baugleiches UL zu 100 % im Herstellerbetrieb hergestellt wurde. Ich vermag nicht zu erkennen, ob es hinsichtlich der qualitativen Betrachtung, selbstverständlich in der Folge auch die Risikobetrachtung, zwischen überwiegendem Selbstbau und Fertigung im Herstellerbetrieb eine noch drastischere Ungleichbehandlung gibt. In einem Herstellerbetrieb wird ausgebildetes, qualifiziertes und lizenziertes Personal beschäftigt, bei ständiger Anwesenheit eines lizenzierten Prüfers. Das bei einem mindestens 51 %igen Selbstbau tätige Personal kann ich nicht im entferntesten beurteilen.

Darüber hinaus wurden inzwischen mehrere baugleiche Exemplare der Baureihe meines/unseres ULs nachweislich einer Belastungsprüfung mit MOTW 560 KG unterzogen, ohne jegliche negative Feststellungen. Bei einem LTB durchgeführt, in einem schriftlichen Prüfbericht dokumentiert, einschl. schriftlicher Dokumentation durch einen Prüfer Klasse V. Sie können mithin technisch bis zum vorgenannten Abfluggewicht betrieben werden. Mein UL wird in Kürze ebenso einer gleichlautenden Belastungsprüfung unterzogen.

Dies vorausgeschickt wird dieser Kommentar gleichzeitig verbunden mit dem Antrag, daß Sie es ermöglichen, die sogenannten **„schweren ULs"** in die Kategorie ELA I einzuordnen, um sie zukünftig auch formal ordnungsgemäß am Luftverkehr teilhaben zu lassen.

Gleichzeitig wird für den Zeitraum der Einordnung der **„schweren ULs"** in die ELA I für die Übergangsphase eine VVZ-Regelung oder Permit to fly beantragt. Dies mit der Begründung, daß sie bereits heute, nach erfolgreich durchgeführter Belastungsprüfung, abgestellt auf 560/600 KG, den Kriterien von ELA I entsprechen.

Die beiden vorgenannten Anträge bedürfen einer äußerst dringenden Behandlung, da eine erhebliche Anzahl von ULs in wesentlichen Parametern nicht den Vorgaben der DAeC-Gerätekennblätter entsprechen. Sowohl der DAeC/LSGB und das LBA, beide Braunschweig, haben von dieser Tatsache positive Kenntnis. Ebenso sind beide Institutionen darüber positiv in Kenntnis, daß es technisch unzweifelhaft möglich ist, eine erhebliche Anzahl der betroffenen ULs aus dieser de jure bestehenden Abweichung vom Gerätekennblatt herauszuführen.

Hinzu kommt, daß dies nicht nur in Deutschland zugelassene ULs betrifft, sonder fast ausnahmslos alle ULs in Europa.

Bitte lassen Sie mir zum gegebenen Zeitpunkt eine Nachricht zukommen.

Nunmehr das obige Schreiben in englischer Fassung. Sehen Sie mir nach, wenn es da und dort vielleicht etwas holprig ist, denn Ihr Fachenglisch ist für mich nicht ganz so einfach:

Now the above letter in the English version. See me if it here and there perhaps something doggerel, because your subject is English for me is not quite so simple:

Excerpt from the DULV homepage, "EASA, ELA and licenses!" The original request of the European ultra-light plane for adoption of the American LSA class wanted the EASA not. Instead, there should be a new category of non-commercial aviation can be created, then the aircraft up to

2000 kg MTOM and includes balloons. This category will be the name ELA I (up to 1000 kg) and ELA II (up to 2000 kg). In addition to the existing ULs (up 472.5 kg - still nationally regulated) should thus **"the overweight ULs"**, the VLA, gliders, Motorsegeler, balloons and airships in this category of the EASA-Regie may be merged.

My comment to NPA No. 2008-07 ELA process and others

Ladies and gentlemen,
This brings me to my call your comment on the above NPA must. This comment refers mainly to the **"overweight ULs"**.
As a holder of one **"overweight ULs"** fly I for years partially illegal. Together with other farmers (almost 40 ULs this type series), we try in vain our total so far from this illegality ULs mainstream. In addition, the writing:
German Aero Club eV., LSGB, Braunschweig,
Federal Aviation (LBA), Braunschweig,
Federal Ministry of Transport, Building and Urban Development (BMV), Bonn,
Federal Bureau of Aircraft Accident Investigation BFU, Braunschweig,
German Ultralight Association (DULV) eV., Großerlach-Morbach,
and calls and requests to appropriate.
All these institutions and those responsible in these institutions is illegal and intolerable situation definitely and positively. Despite his silence, it will be rejected by our ULs from the mainstream formal illegality, although this is technically possible evidence. Based on the legal order of the Federal Republic of Germany is such an attitude can not be justified. All interested holder in this inaction as a failure of policy makers assistance.
Regardless of which are in Germany ULs hundreds of other series also illegal. All the affected holders are identical criminal and civil law without the need seriously situation.
At the Federal Aviation Office (LBA), Braunschweig, have I, amongst other holders, in a letter dated 8.6.2008 an application for admission to my UL "Limited special class", in this way to try our ULs from this illegality mainstream. By letter from the Federal Aviation Office (LBA) of 30.6.2008, I was given to this request "for purely formal reasons" has not been met.
All leaders in the above institutions are aware that my UL and other ULs technically exactly identical copies of which are as aircrafts in the "Limited special class" (Experimental, E-registration) has already been approved and the LBA, Braunschweig, are registered. Thus are identical with each other aircrafts and ULs deliberately treated differently. In addition, the aircrafts in the "Limited special class", which actually ULs, 51 % are manufactured in self and my/our UL identical to 100 % in the manufacturing company has been established. I can not tell if there any qualitative consideration, of course, would also risk consideration, mainly between self and production in manufacturing company an even more drastic inequality. In a manufacturing company is trained, qualified and licensed personnel employed in permanent presence of a licensed auditor. The one at least 51 % self staff, I can not judge the remotest.
In addition, since several identical copies of the series of my/our ULs evidence of a stress test with 560 KG MOTW subject, without any negative findings. In a LTB, in a written report documented, including written documentation by a moderator class V. You can therefore technically up to the aforementioned take-off weight operated. My UL will shortly as an equivalent load test.
That said, this comment at the same time connected with the request that you allow the so-called **"overweight ULs"** in the category ELA I classify, to the future also formally properly on air transport to participate.
At the same time period for the classification of **"overweight ULs"** in the ELA

I for the transitional phase VVZ-arrangements or Permit to fly. This on the grounds that it already today, after successfully loading test carried off on 560/600 KG, the criteria ELA I.
The two aforementioned applications require a very urgent treatment, since a significant number of ULs in essential parameters do not meet the requirements of the DAeC-Gerätekennblätter (equipment identification tags). Both the DAeC/LSGB and the LBA, both of Braunschweig, have benefited from this positive fact. There are also positive about both institutions in this regard, that it is technically possible is undoubtedly a significant number of affected ULs from this de jure existing Gerätekennblatt (equipment identification tags) deviation from the mainstream.
In addition, not only in Germany approved ULs, but almost without exception all ULs in Europe.
Please let me at the appropriate time to send a message.

response

Noted

The purpose of this NPA is not to solve the case of specific aircraft.
Aircraft that do not comply with the criteria of Annex II paragraph (e) have to comply with Part-21. The Opinion resulting from this NPA will propose a simplifed process called ELA.
The Agency intends to launch another rulemaking task to modify Regulation (EC) No 216/2008 to achieve the following:
1. Propose the necessary modifications to the Basic Regulation and to EASA Implementing Rules to achieve an adapted level of regulation for ELA 1 for airworthiness, maintenance, operations and licensing.
2. Harmonise the above with other authorities.
3. Improve the approach to orphan aircraft.
4. Review the essential requirements for airworthiness to avoid any unwanted effects on the small aircraft.
5. Propose that a Type Certificate for engine and propellers is not needed for some ELA aircraft.
6. Ensure that self-sustained powered sailplanes equipped with a turbojet are non-complex aircraft.

This proposal to modify the Basic Regulation will follow the rulemaking process, therefore allowing full consultation of stakeholders and will be supported by a study. The corresponding rulemaking task could start in 3rd quarter 2010 with an Opinion issued in early 2013.
The Agency wishes to point out that in its Opinion scheduled for December 2010 it will not propose any modifications to Annex II. If the manufacturer of an aircraft originally classified in Annex II wishes to increase the Maximum Take-Off Mass of the design beyond the limit of Annex II, it will have to comply with the requirements applicable to ELA, including design and production requirements.

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[1] The reference to paragraph (e) means that aircraft complying with paragraph (c) of Annex II are not covered by that measure. Paragraph (c) reads as follows: aircraft which at least...

comment

750 comment by: *Air Marugan*

General comment

1. According FAA and EAA, the amateur built aircraft which have not any design or manufacturing oversight have an excellent safety record in the US. Further more design and manufacturing errors are less than with certified

aircrafts. Maintenance and pilot errors (first flights) are more. In 3 years LSA in the US only one design issue did come up and that was with an type certified aircraft.

That clearly proofs that aircrafts with design and manufacturing oversight do not delivery any safety benefit. Statistics show even the opposite. The reason can be that traditional standards (Part 21,22,23,25) are static and not dynamically developing to safety needs like ASTM 2245,2279 and others.

2. The proposed changes in the present NPA were not what the light aviation community asked for. We plead for a stand-alone European LSA category, compatible with LSA category in the United States. The proposed amendments represent more an attempt at resuscitation of the conventional general aviation than of a successful integration of the modern (Ultra)lights in the European regulatory frame work. There is a serious risk that the world leading European light aviation industry (represented by the modern Advanced Ultralights) will be destroyed totally by the present proposals.

3. The withdrawal of Annex II must not be related with the introduction of ELA. Within the Annex II a lot of pilots fly, a lot of manufacturers work and a lot of employees earn a living. The Annex II has to be protected until ELA has prooved that it can be as successful as the Annex II area.

response

Noted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

777 comment by: *luciano giannini*

The Italian Microlight Federation - FIVU - thinks that the proposed changes in the NPA 2008-07 substantially appear as a involution in respect to the great and natural evolution of microlight and recreational aviation and is not what the light aviation community asked for.
We think that a stand-alone European LSA category, compatible with the US-LSA category, could be the natural solution, in order to answer at the expectations of pilots, manufacturers farm (uniformity of the market), and fly schools.
Last but not least, an European LSA category will be decisive to implement an unique set of rules.
Any other proposal, like ELA 1, could be only a very approximate attempt to resolve the problems highlight in the present and, probable, future scenarios of EU recreational aviation. There is a serious risk that the successful light aviation (represented by the modern microlights) will be killed by the present proposals.
At the same time, we think that Annex II represent an important and essential gate entry to the simplest end economic way to get the possibility of fly for thousands of fans and tens of manufacturers: in other words, the better way to promote and popularize aeronautical culture.
About that, we believe that Annex II must be keep in force until European Community will be able to guarantee the same strategic objectives for the basic microlight sector.

response

Noted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment 778 comment by: *Herbert HERGET*

General comment
6
6
The General Aviation crisis - with the solitary exception of the ultralights in the frame of Annex II - is resulting from the increasing regulatory harassment and increasing costs (which result directly from over-regulation). These increased regulations are officially justified by a desire of increasing flight safety in this leisure activity, but prove to have no practical effect - at least on safety - except

- decreasing the number of pilots,
- decreasing the number of hours flown by pilots as a direct effect of the escalati ng costs,
- obstructing technical progress as a direct effect of the escalating costs for certifying parts and products, which induces the attitude to use and sell a product - once certified - as long, as possible,

all this even decreasing safety! I welcome this initiative, which is likely to allow many Europeans pilots to benefit from the light regulatory frame light aviation is enjoying in many countries. The wish for an LSA equivalent in EU is a direct result o f the wish for greater operational possibilities, which have become a simple reality because of the performances of modern ultralights. Realising these greater operational possibilities within the framework of present Annex II (which is technically absolutely possible) creates complex and extremely expensive aircrafts - the contrary of the simple and affordable aircrafts, ultralights wanted to be in the begi nning. US-LSA shows a very reasonable way out of this situation. To guarantee the success of this new regulation, I think that EASA showed pusillanimity in its approach of the future certification process, particularly when it comes to the ELA1 class, which is intended to encompass the greatest possible number of leisure aircraft. It is only by setting up a self certification by the manufacturer that the costs of this process could be drastically reduced and thus support the creativity and the competition essential to the development of attracting leisure aviation. Comparing a self declaration system to a system based on Qualified Entities (QE), I am convinced that

- QE is far more expensive
- QE only provides a fictitious improvement of security

FAA-LSA is taking the security aspect into account,

- by stipulating technically simple and good-natured aircrafts, and
- by distinguishing two different cases of secur ity/protection level needed:
- S-LSA, quasi („QE") certified by the manufacturer for a serial production, which must not be modified.
- E-LSA, built as an „Experimental", which can be modified.

Instead of setting up a heavy process of control involving many costly third parties, the Agency could have been satisfied with a survey control and probing system, reserving it's right to check the declarations of the manufacturers, or when failure to match the certification codes is suspected. Thus, I estimate that the evolution suggested - even if it constitutes a certain lightening of their tasks for the existing manufacturers of certified aircrafts - will be insufficient to stop the decline of the leisure aviation as a whole. This is more than certain when reviewing the currently published proposals related to licensing and maintenance procedures, which are practically as heavy as what prevailed before (national legislations). The promised innovation seems to be nothing else but a slightly modified reproduction of the stillborn child VLA, which has never had any positive effect on recreational aviation. So, I express my large

disappointment about the way those promising new rules are developed.
General conclusion: The proposed changes in the present NPA were not what the light=2 0aviation community asked for. The proposed amendments represent rather an attempt of resuscitation of the conventional light aviation than of a successful integration of the modern Ultralights in the European regulatory frame work. There is a serious risk, that the successful light aviation, represented by the modern Ultralights, will be=2 0killed by the present proposals. The future of Annex II must not be related with the introduction of ELA, the way, it is proposed now. Within the Annex II, a lot of pilots fly, a lot of manufacturers work and a lot of employees earn a living. The Annex II has to be protected until ELA has proved that it can be as successful as the Annex II area. In such circumstances I express firmly my clear and determined choice that aircraft below 450kg MTOW (472,5Kg with recovery parachute) should remain outside of the scope of EASA, in Annex II. I am very satisfied with the current situation and have no wish whatsoever to see it change. Concerning the aspect of the subclass LSA, whose purpose it is to facilitate the work of the European manufacturers already exporting in the USA, I am astonished about the technical framework introduced by the NPA. Actually, the American LSA class is strictly limited to a minimum stall speed without flaps to 45 kts and to a 120 kts maximum full power level speed. Also prohibited are=2 0the use of variable pitch propellers and retractable gears. If exonerating ELA 1 of these lim itations, which justify the lightened regulation granted to this new class of aircraft by the FAA, the Agency does not achieve this goal. Therefore, I hereby clearly claim to adopt the original definition of the FAA-LSA category without reservation. Justification:

- US-LSA has well been considered and created with a good know-how. It is principally useful.
- It is better to accept a limitation of technical complexity, than a limitation of operational use of the aircrafts.
- Accepting a limitation of technical complexity is the best argument for staying out of complex (over)regulation.
- Technical complexity is expensive.

response *Noted*

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

TITLE PAGE p. 1

comment *342* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

Attachment #2

response *Noted*

Noted. Replies will be provided on detailed comments.

A. Explanatory Note - I. General p. 3

comment *144* comment by: *ENAC*

The scope of task MDM.032 is to regulate aircraft other than complex powered aircraft used in non commercial activities. In the proposed NPA there is no

restriction of these aircraft to non commercial activities.

response *Noted*

Please see CRD Part I paragraph (b): 7 parts that do not need an EASA Form 1.

comment *549* comment by: *UK CAA*

Subject/Topic	**Commercial Use or not?**
NPA Section / Page	**Comment**
Section A, I "General" Page 3 Section A, IV, "Further Considerations..", Page 6	It is not clear from the NPA whether the aircraft that will be approved through the ELA process will be allowed to be used commercially or not. In Section A, I "General", the MDM.032 rulemaking task is defined as: "Regulation of aircraft other than complex motor powered aircraft, used in non-commercial activities." However, this is contradicted by the statement in Section A, IV, "Further Considerations..", Page 6 - "...the Type Certificate will not limit the aircraft to a specific category of operations" It may be considered that the kind of operations permitted should be defined in the operating rules and not in Part 21, but the operating rules will need some means to identify ELA aircraft separately from other aircraft. **Questions** Will an aircraft approved through the ELA process be permitted to operate commercially or not? Will certain kinds of commercial operation be permitted, and if so which specific activities? Will an aircraft approved through the ELA process be identified as an ELA on its Type Certificate and Certificate of Airworthiness? If ELA aircraft are not to be a separate certification category, how will the operating rules refer to them when defining their operating limitations?

response *Noted*

Please find below the replies to the specific questions:
Will an aircraft approved through the ELA process be permitted to operate commercially or not? Will certain kinds of commercial operation be permitted, and if so which specific activities?
There is no reason to limit operations from the technical point of view in certification.

Will an aircraft approved through the ELA process be identified as an ELA on its Type Certificate and Certificate of Airworthiness?
This TC will be issued in accordance with Part-21 when the Opinion is adopted by the legislator. This TC will use a process that is proportionate to the aircraft covered by ELA. In that context there is no reason to put a specific mention of ELA process.

	If ELA aircraft are not to be a separate certification category, how will the operating rules refer to them when defining their operating limitations? The recent Opinion to Part-M has introduced the ELA by using a definition of the criteria used in 21A.14. The same practice could be adopted by operating rules if there is a need to establish operating limitation.

comment	*608* comment by: *Ronald MEYER* The NPAs on Operations and licensing, meanwhile issued, ignore the successfull systems for operations and licensing within the European Ultralights and the FAA-LSA categories in the same way, this NPA is ignoring the successfull systems for initial and continued airworthiness within the European Ultralights and the FAA-LSA framework.
response	*Partially accepted* Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment	*656* comment by: *EAA* General Comment 1. EAA recommends that a stand-alone Paneuropean light-sport aircraft (LSA) category be established as it offers the greatest opportunity for promoting aviation within Europe. 2. Section A, Subpart B, 21A.14, Demonstration of Capability: • EAA fully supports the ELA 2 definition for CS-LSA Aeroplane "An aeroplane, sailplane, or powered sailplane with MTOM less than 2000 kg that is not classified as complex-motor-powered aircraft. The FAA definition of a LSA aircraft includes this language: "(6) A single, reciprocating engine, if powered." EAA is in the process of working in partnership with the FAA to change this language to allow greater flexibility in the choice of engines. The aviation engine industry and individual innovators are rapidly developing both pure electric aircraft motor technologies and gas-electric hybrid aircraft engine technologies. It is this advancing technology that the current FAA regulatory language of "reciprocating" prohibits. It is EAAs hope that this issue will be resolved in the very near future. The wording in your proposed LSA specifications supports these evolving environmentally friendly aircraft engine technologies. For this, we applaud your efforts.
response	*Partially accepted* Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

A. Explanatory Note - IV. Content of the draft opinion and of the draft decision p. 4

comment	*68* ❖ comment by: *Michael GREINER* **NOTE:**

This comment was made against this section of the NPA. This comment and the response are however only reflected once at page 6 of this CRD in order to improve readability.

response *Noted*

comment *416* comment by: *P&M Aviation*

The published proposals do not apply to Annex II aircraft which includes the majority of microlight aircraft, is it the intention to leave Annex II aircraft alone or to incorporate them into some other scheme. Leaving Annex II microlight aircraft still means that each country has its own set of rules and regulations, which for the UK would mean that if the proposals in NPA 2008-07 are adopted then UK microlight aircraft would be designed and built to a higher standard than proposed by CS-LSA, which appears unusual for aircraft with a lighter weight and lower inertia.

response *Noted*

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment *652* comment by: *Martin Josef Warken*

Comment 20
Page 5/6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Overview of the proposals included in this NPA

Page 6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 1

Page 7 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 2

Page 26/27 B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".
This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.

response *Accepted*

The presentation will be corrected accordingly.

A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Introduction p. 4

comment *68* ❖ comment by: *Michael GREINER*

NOTE:
This comment was made against this section of the NPA. This comment and

	the response are however only reflected once at page 6 of this CRD in order to improve readability.
response	*Noted*

comment	*125* comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.* As is widely known, current high performance aircraft within Annex II are on the limits of the definitions under Annex. As is also commonly known, there are a huge number of active pilots and new aircraft under Annex II. For the success of ELA it is mandatory, that there is a sensible and easy (in sense of effort, time and cost) way to upgrade existing aircraft of Annex II to be used under ELA concept. This applies to both, initial airworthiness and licensing. Licensing will be commented separately in answer to the licensing NPA. Excluding these pilots / owners from the new category will be overcritical for the the success of the new system and cannot be justified with any safety mean. Regarding Initial Airworthiness the proposal is to use a similar mechanism like done in USA when introducing the LSA category. There a limited timeframe was available, where each aircraft owner had the possibility by simple paperwork to get his/her aircraft certified as "experimental" LSA with certain operational limitations to the new category. There was no new checking of compliance or such, the individual aircraft was accepted on the basis of its existing operational experience. For most aircraft owners this is fully sufficient. Secondly, it is proposed to also offer for factory produced Annex II aircraft already in service to enhance the scope of usability by showing compliance on the basis of the certification code the aircraft is already certified to, and upgrading it through the manufacturing company to the ELA category, without operational limitations. An example would be that an Ultralight, currently certified under LTF-UL (Germany), or Section S (UK) or ?!? (Czech) to become an LSA aircraft, still following LTF-UL certification code, but with enhanced takeoff mass.
response	*Partially accepted* Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment	*161* comment by: *ENAC* Several times the NPA refers to FAA rules and AC as a target to be achieved, without taking into account that FAA has different scope from EASA (issue of Permit to Fly) and different applicability.
response	*Accepted* The Agency acknowledges that there are differences. FAA material is only adopted when appropriate.

comment	*216* comment by: *Aero-Club of Switzerland* The Aero-Club of Switzerland is happy to see that the facts of the production side have been taken into consideration: European products not authorized to fly in Europe do not promote European aeronautical capabilities.
response	*Noted* The Agency thanks the commentator for their support.

comment	*269* comment by: *Gorden WIEGELS* As is widely known, current high performance aircraft within Annex II are on the limits of the definitions under Annex. As is also commonly known, there are a huge number of active pilots and new aircraft under Annex II. For the success of ELA it is mandatory, that there is a sensible and easy (in sense of effort, time and cost) way to upgrade existing aircraft of Annex II to be used under ELA concept. This applies to both, initial airworthiness and licensing. Licensing will be commented separately in answer to the licensing NPA. Excluding these pilots / owners from the new category will be overcritical for the the success of the new system and cannot be justified with any safety mean. Regarding Initial Airworthiness the proposal is to use a similar mechanism like done in USA when introducing the LSA category. There a limited timeframe was available, where each aircraft owner had the possibility by simple paperwork to get his/her aircraft certified as "experimental" LSA with certain operational limitations to the new category. There was no new checking of compliance or such, the individual aircraft was accepted on the basis of its existing operational experience. For most aircraft owners this is fully sufficient. Secondly, it is proposed to also offer for factory produced Annex II aircraft already in service to enhance the scope of usability by showing compliance on the basis of the certification code the aircraft is already certified to, and upgrading it through the manufacturing company to the ELA category, without operational limitations. An example would be that an Ultralight, currently certified under LTF-UL (Germany), or Section S (UK) or ?!? (Czech) to become an LSA aircraft, still following LTF-UL certification code, but with enhanced takeoff mass.
response	*Partially accepted* Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment	*353* comment by: *British Gliding Association* Content of the NPA **The BGA welcomes this development** as a major and significant improvement on previous approaches. We specifically note that the heavy handed processes of Part-M are removed for this class of aircraft and that maintenance is underpinned by NPA2007-08. The basic premises of this model are sound as applied to the classes of aircraft identified.
response	*Noted* The Agency thanks the commentator for their support.

comment	*376* comment by: *O. Reinhardt / Flightdesign* As is widely known, current high performance aircraft within Annex II are on the limits of the definitions under Annex. As is also commonly known, there are a huge number of active pilots and new aircraft under Annex II. For the success of ELA it is mandatory, that there is a sensible and easy (in sense of effort, time and cost) way to upgrade existing aircraft of Annex II to

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response

Partially accepted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

395 comment by: *Thomas Wendt*

Comment 21

Page 4 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Introduction

As is widely known, current high performance aircraft within Annex II are on the limits of the definitions under Annex. As is also commonly known, there are a huge number of active pilots and new aircraft under Annex II.

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	the basis of the certification code the aircraft is already certified to, and upgrading it through the manufacturing company to the ELA category, without operational limitations. An example would be that an Ultralight, currently certified under LTF-UL (Germany), or Section S (UK) or ?!? (Czech) to become an LSA aircraft, still following LTF-UL certification code, but with enhanced takeoff mass.
response	*Partially accepted* Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment	*398* comment by: *Flight Design GmbH Matthias Betsch CEO* As is widely known, current high performance aircraft within Annex II are on the limits of the definitions under Annex. As is also commonly known, there are a huge number of active pilots and new aircraft under Annex II. For the success of ELA it is mandatory, that there is a sensible and easy (in sense of effort, time and cost) way to upgrade existing aircraft of Annex II to be used under ELA concept. This applies to both, initial airworthiness and licensing. Licensing will be commented separately in answer to the licensing NPA. Excluding these pilots / owners from the new category will be overcritical for the the success of the new system and cannot be justified with any safety mean. Regarding Initial Airworthiness the proposal is to use a similar mechanism like done in USA when introducing the LSA category. There a limited timeframe was available, where each aircraft owner had the possibility by simple paperwork to get his/her aircraft certified as "experimental" LSA with certain operational limitations to the new category. There was no new checking of compliance or such, the individual aircraft was accepted on the basis of its existing operational experience. For most aircraft owners this is fully sufficient. Secondly, it is proposed to also offer for factory produced Annex II aircraft already in service to enhance the scope of usability by showing compliance on the basis of the certification code the aircraft is already certified to, and upgrading it through the manufacturing company to the ELA category, without operational limitations. An example would be that an Ultralight, currently certified under LTF-UL (Germany), or Section S (UK) or UL-2 (Czech) or other equivalent codes become an LSA aircraft, still following original certification code, but with enhanced takeoff mass.
response	*Partially accepted* Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment	*479* comment by: *Tegelbeckers* Comment 21 Page 4 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Introduction
response	*Noted* No comment has been made.

comment 521 comment by: aeroklaus

Comment 21
Page 4 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision – Introduction
Page 12 - A. Explanatory Note - V. Regulatory Impact Assessment - 1. Purpose and intended effect
Page 14 - A. Explanatory Note - V. Regulatory Impact Assessment - 4. Impacts (Economics)

As is widely known, current high performance aircraft within Annex II are on the limits of the definitions under Annex. As is also commonly known, there are a huge number of active pilots and new aircraft under Annex II.
For the success of ELA it is mandatory, that there is a sensible and easy (in sense of effort, time and cost) way to upgrade existing aircraft of Annex II to be used under ELA concept. This applies to both, initial airworthiness and licensing. Licensing will be commented separately in answer to the licensing NPA. Excluding these pilots / owners from the new category will be overcritical for the the success of the new system and cannot be justified with any safety mean.

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response *Partially accepted*

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment 561 comment by: UK CAA

Subject/Topic	**European and US Light Sport Aircraft**
NPA Section / Page	**Comment**
Section A. Explanatory Note, IV, Introduction; 3rd para. Part A - Section V, 4, Impacts (a) (i) Economic; (vi) Foreign requirements	The NPA discusses the US and European markets and the approach taken by non-EU countries for this class of aircraft. The European approach set out in this NPA is significantly different from that of non-EU countries in that it proposes that Type Certificates will be issued and compliance with ICAO standards will be claimed. The FAA has confirmed to the CAA-UK that current US regulations prohibit the granting of a Light Sport Aircraft "Special Certificate of Airworthiness" to any aircraft that is Type Certificated or that has previously held a certificate of

airworthiness equivalent to any of the following FAA certificates: standard, primary, restricted, limited, or provisional. There is a risk therefore that an unintended effect of implementing this Opinion may be to prevent further exports of European-built LSA to the US
Is the Agency sure that the implementation of this NPA will not result in the closure of the US market to European manufacturers of LSA?

The possibility of importing non-EU ELA/LSA must also be considered. Take as an example the Cessna Aircraft Company's impending mass-production of the "Skycatcher" Light Sport aircraft. This will not have an FAA TC and the FAA will not provide Export CsofA. The aircraft would require an EASA TC to fly in Europe. This raises the prospect that EASA may be asked to grant an EASA TC to Cessna (without an equivalent FAA TC), and without Cessna being obliged to have a Part 21 DOA (because the Skycatcher is ELA1).
There is also the problem of complying with Part 21 requirements for the issue of a CofA to a new aircraft manufactured outside the EU, when the State of Production will not issue a statement of the level of airworthiness.

Proposals
It is suggested that, before proceeding further with this Opinion, EASA should clearly establish with the FAA what the position would be with respect to the transfer of LSA between the US and the EU.
To allow for the possible need to be the Primary Certificating Authority for LSA designed outside the EU, EASA should consider amending the Opinion to require a Part 21 DOA for LSA/ELA1.

response *Accepted*

Please see CRD Part I paragraph (b) 10 on harmonisation with FAA.

comment *602* comment by: *klaus M*

Comment 21
Page 4 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Introduction
Page 12 - A. Explanatory Note - V. Regulatory Impact Assessment - 1. Purpose and intended effect
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response *Partially accepted*

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment *614* comment by: *European Sailplane Manufacturers*

The European sailplane manufacturers share the view that the bussiness case for comanies trying to develop and sell small aircraft has not improved in Europe.

The simple fact that the manufacturer has in the end the responsibility for his product and that he has to first communicate with this customer and that participation of the authorities should only support this has been totally lost by the several iterations in legislation of sailplane certification processess:

1920´s:
First competitions on the German Wasserkuppe;
a technical commission formed by the organisers, pilots and buiders sees that the designs fullfill some basic standards

1930´s:
National authorities form but gliding very often stays either with the sporting organisations and or specialiced organisations.

1950 and 60´s:
Europe goes along the way that certified organisations should have the according privileges in aviation.
Mostly for the very small sailplane manufacturers at least autorities exist which cover all regarding tasks (certification of organisations and products, continuing airworthiness)

1970´s until 2003:
Within the regarding authorities further specialisation occurs meaning more time spent with autorities for the small manufacturers.
Inclusion of JAR induced regulation brings the need for renewal of existing licences and approvals.

2003 until today:
EASA is been introdced an again brings the need of doing still the old things by

new rules. New administrative burdens and costs.

Still there are some companies around trying to sell rather simple products for the gliding community world-wide....

The god experience within the USA regarding the LSA system with the giving-back of responsibility to the manufacturer and the operater are only been noticed here in the NPA but no real consequence has been taken in drafting the proposed rule changes.

response

Partially accepted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

680 comment by: *Deutscher Aero Club e.V. (DAeC)*

The Deutscher Aero Club e.V. welcomes the envisaged alleviations to the certification process in order to revitalise the light aviation market. However unless the fees & charges regulation is revised as well the result will not be lasting.

response

Noted

All legal approvals remain issued by the Agency under its Fees and Charges system. This Fees and Charges system is considered by stakeholders as being a major hindrance to certification of new aircraft or to certification of changes or repairs to existing aircraft. The Fees and Charges regulation is adopted by the Commission. The applicant pays the fees to EASA. The contracts between EASA and NAA or qualified entities when they are allocated tasks by EASA contain the financial arrangements between EASA and NAA or QE. Modifying this framework necessitates an in-depth further study.

comment

717 comment by: *Experimental and Ultralight Committee, Finnish Aeronautical Association*

This NPA is a step forward towards the goal of enabling growth of light aviation in the EASA domain. Specifically, the proposed CS-LSA category is an essential element for making leisure aviation more affordable and available for new pilots throughout the EU. The CS-LSA (or even the FAA LSA) should certainly be adopted.

However, in our opinion the CS-LSA on its own is not sufficient to ensure that this "entry level" to EASA-regulated flying is sufficiently attractive to potential new pilots to ensure the success of the overall MDM.032 goals. The total regulatory framework including initial airworthiness; licensing; maintenance; and operations will decide the success or failure of reaching the goals: combining affordability with adequate safety.

In particular, the LSA shall not be burdened with the full EASA Part M continuing airworthiness regulations, as that would lead to a cost level that makes LSA non-competitive compared to alternatives. Past experience from the microlight area has shown that a system based on owner maintenance together with inspections by a certified body can provide an adequate level of safety for this category where only a maximum of one passenger is carried. We suggest this to be addressed in the EASA maintenance regulations in parallel with Part-21. While this comment is somewhat outside the Initial Airworthiness scope of this NPA, we include it as the Part-M consultations were already

closed before the CS-LSA proposal.

response *Partially accepted*

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment *746* comment by: *Oliver*

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response *Partially accepted*

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment *774* comment by: *Air Marugan*

Comment 21
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response *Partially accepted*

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Overview of the proposals included in this NPA p. 5-6

comment *26* comment by: *FFVV*

On behalf of FFVV.
S 22 is convenient for sailplanes and powered sailplanes, and CS LSA does not means alleviation of requirements for certification or maintenance of these aircrafts.

response *Accepted*

CS-LSA means Light Sport Aeroplanes. This was done voluntarily: as the commentator rightly points out, the CS-22 is fully satisfactory for sailplanes and powered sailplanes.

comment *30* comment by: *FAA*

The NPA states in numerous places that ELA is not a new category of aircraft. However, the FAA considers SLSA a new category. This was done to provide a distinction between Experimental LSA and Special LSA, which are under tighter configuration control by the manufacturer than ELSA. Because EASA states ELA is process and not a new product, there will be differences between products developed under the two systems, making transition between ELA and LSA difficult for manufacturers in US and in Europe. EASA and FAA need to work together to clearly define how ELA and LSA are related so the requirements for each are clear to manufacturers seeking approval under both systems.

response *Accepted*

Please see CRD Part I paragraph (b) 10 on harmonisation with FAA.

comment *31* comment by: *FAA*

ELA1 appears to be largely compatible with FAA LSA design limitations and operational limits. However, ELA2 appears to allow more overlap between CS-

	23 and ELA than would be allowed under the FAA LSA system. This may blur the lines between CS-23 and ELA2, which may cause confusion if EASA certificated products are to be considered for use in the US under LSA. The FAA has purposely drawn a clear line of distinction between Part 23 and LSA, only allowing some existing Part 23 designs to be considered under LSA. Like EASA, the FAA allows manufacturers to meet a higher standard than required by the ASTM standards for a particular design if they so choose. However, we do not give credit for this in their LSA design approval or list the Part 23 standards in the statement of compliance to the ASTM standards. We also do not allow a new aircraft intended to meet Part 23, and claims credit for Part 23, to be certificated under LSA. FAA does not allow overlap between new Part 23 and new LSA aircraft for new designs. However, EASA ELA2 seems to overlap Part 23 significantly. EASA needs to produce clear guidance stating aircraft are to be designed and certificated in one category only. Discussions need to be held to make sure products designed for import/export are properly identified as well.
response	*Noted* ELA is a different system than the US LSA rule. It is a simplified certification process and the simplification is mostly relative to organisation approvals. The TC or RTC will clearly identify the airworthiness code and if appropriate the categories included in that code. An ELA 2 aeroplane will be certificated to CS-23.

comment	*44* comment by: *Kai Bode* Gyroplanes (Gyrocopters) missing: The ELA 1 weight limitation would make room for a better protected, fully enclosed gyroplane with more than 2 occupants. Celier aviation, for example, have introduced such a model for three occupants already, the full enclosure providing excellent protection. Even 2-seater gyroplanes today have difficulty fullfilling the weight limitation and at the same time provide passive occupant safety. The Gyroplane is clearly not a complex craft and should therefore explicitly be include in the ELA 1 definition, as well as ELA 2 for larger planes.
response	*Partially accepted* The commentator is right: gyroplanes were not discussed in the NPA. *Gyroplanes* with a maximum take-off mass below 560 kg fall under the remit of Annex II. As this criterion was considered to encompass the vast majority of gyroplanes, there was no consideration given to gyroplanes in the NPA. In fall 2008, the Agency was approached by a designer that designs a gyroplane with a maximum take-off mass of 750 kg. After consultation of the review group, the Agency considers that the process used in such case should be ELA-2. Certification codes could be based on VLR or CS-27.

comment	*48* comment by: *Filippo De Florio*
response	*Noted* No comment has been made.

comment	*49* comment by: *Filippo De Florio*

response | *Noted*

No comment has been made.

comment | *51* comment by: *Filippo De Florio*

Do you really consider sailpanes of MTOM between 1000 and 2000 kg?

response | *Noted*

The Agency is not expecting that such sailplanes will be offered for certification. Should this happen, an appropriate process and certification basis would have to be defined.

comment | *67* comment by: *Apex Aircraft*

Les définitions ELA1 et ELA2 sont rédigées comme suit:

"ELA1 : définition: un aéronef, planeur....."
"ELA2 : définition: un aéronef, planeur....."

Ces définitions sont contradictoires avec le texte :
"ELA n'est pas une nouvelle catégorie d'aéronef...., mais un nouveau process simplifié....."

Les définitions pourraient être :
"ELA1 : définition: process applicable à un aéronef, planeur....."

La rédaction des différentes propositions d'amendement au part 21, "aéronefs ... définis au paragraphes 21A.14b) et/ou 21A.14c"
laisse supposer qu'il s'agisse bien d'une catégorie d'aéronef.
(voir par exemple les 21A.96a), 21A.116, 21A.35a)2), 21A.47c), 21A.139c), 21A.163e),21A.307b) et c), subpart L, 21A.432c), ...)

response | *Accepted*

The commentator is right: the explanatory note uses the word definition for ELA. To be accurate and consistent with the principle that ELA is a process and not a category, the explantory note should have spoken of the definition of the applicability of the ELA process. What is called definition in the explanatory note should have been better called applicability of the process.

comment | *68* ❖ comment by: *Michael GREINER*

NOTE:
This comment was made against this section of the NPA. This comment and the response are however only reflected once at page 6 of this CRD in order to improve readability.

response | *Noted*

comment | *85* comment by: *René Fournier*

The decision to introduce a better graduation in the regulation of aviation

products according to the actual complexity of the aircraft or product concerned is highly desirable.

Indeed, the level of constraints imposed by the original version of Regulation 1702/2003 on TC holders and Production Organisation of small leisure aircraft were far too cumbersome and ignored the realities of the recreational aviation community.

From my own experience of TC Holder for small leisure aircraft no longer into production, the requirement for a quality system to produce spare parts combined with that of the EASA Form 1 has been a very acute and time consuming problem.

Subject to the comments and improvements suggested below, it seems to me that the envisaged ELA 1 and ELA 2 regimes strikes a better balance between harmonisation of the safety level in the EU and the realities of the leisure and sport aviation sector.

Finally, I also welcome the fact that aircraft categories ELA 1 and ELA 2 will be considered as in conformity with ICAO Annex 8.

response

Noted

The Agency thanks the commentator for their support.
The Agency wishes to stress the use of the word process: ELA has not created categories of aircraft. ELA1 and ELA2 provide new means to achieve certification for the aircraft they are applicable to. Aircraft using the ELA will have the same airworthiness certificates as aircraft using the present Part-21 process. ELA1 and ELA2 use existing airworthiness codes and have only created a new code: CS-LSA. We plan in addition to create a CS-23 Light, based on FAR-23 at amendment 7.

comment

145 comment by: *ENAC*

In the introduction it is established that ELA are not new category of aircraft but simpler new process applicable to no complex aircraft because it is supposed to identify as ELA aircraft od simple design.

ELA1/ELA2 refer only to weight and general characteristics, but not really characteristics that could have impact on the certification process (e.g. use of material, kind of avionics, kind of operations, unusual design, new concept, etc.)
Consider as example that VLA was applicable only to VFR operation, simple design, not retractable landing gear, etc.

response

Not accepted

Please see CRD Part I paragraph (b) 2 on criteria for ELA1 and ELA2.

comment

214 comment by: *Aero-Club of Switzerland*

The Aero-Club of Switzerland thinks, a Very Light Rotorcraft should not have a permitted MTOM of 2000 kg, such a weight has nothing to do with "very light". We suggest a name change and propose the use of "European Light Helicopter (ELH)". This remark is valid throughout the whole document.

response

Not accepted

The ELA process is only applicable to Very Light Rotorcraft (MTOM less than 600 kg) and to gyroplanes with a maximum take-off mass of 750 kg: the process is in that case ELA2 as the complexity of such machines does not allow to accept a certification programme as a means to justify capability to design.
There is no intention to accept VLR up to 2 000 kg: there is a task in the rulemaking programme to possibly extend the scope of CS-VLR to 750 kg but with no timeframe defined.

comment *220* comment by: *Aero-Club of Switzerland*

One question from the Aero-Club of Switzerland remains: What will be the process to be followed for the certification of a turbojet or electric (solar) powered glider?

response *Noted*

The Agency intends to use ELA1.

comment *226* comment by: *luciano giannini*

FIVU's General comment

The Italian Microlight Federation - FIVU - thinks that the proposed changes in the NPA 2008-07 substantially appear as a involution in respect to the great and natural evolution of microlight and recreational aviation and is not what the light aviation community asked for.
We think that a stand-alone European LSA category, compatible with the US-LSA category, could be the natural solution, in order to answer at the expectations of pilots, manufacturers farm (uniformity of the market), and fly schools.

Last but not least, an European LSA category will be decisive to implement an unique set of rules.

Any other proposal, like ELA 1, could be only a very approximate attempt to resolve the problems highlight in the present and, probable, future scenarios of EU recreational aviation. There is a serious risk that the successful light aviation (represented by the modern microlights) will be killed by the present proposals.

At the same time, we think that Annex II represent an important and essential gate entry to the simplest end economic way to get the possibility of fly for thousands of fans and tens of manufacturers: in other words, the better way to promote and popularize aeronautical culture.

About that, we believe that Annex II must be keep in force until European Community will be able to guarantee the same strategic objectives for the basic microlight sector.

Federazione Italiana Volo Ultraleggero
www.fivu.it

response *Noted*

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment	*253* comment by: *Ronald MEYER* Comment 14: Creation of a Certification Specification - Light Sport Aeroplane (CS-LSA) Following the philosophy of a self declaration basis, certification has to be limited to the issue of a "special airworthiness certificate", according to FAA-LSA: Eligibility. LSA are eligible for a special airworthiness certificate in the LSA category when the applicant provides a copy of the aircraft manufacturer's- (1) Written operating instructions. (2) Written maintenance and inspection procedures for the entire aircraft. (3) Flight training supplement. (4) Statement of compliance. This must contain: **(a) The identity of the aircraft by make and model, serial number, class, date of manufacture, and consensus standard used;** **(b) A statement that the aircraft meets the provisions of the identified consensus standard;** **(c) A statement that the aircraft conforms to the manufacturer's design data, using the manufacturer's quality assurance system that meets the identified consensus standard;** **(d) A statement that the manufacturer will make available to any interested person the following documents that meet the identified consensus standard:** ***1 The aircraft's operating instructions;*** ***2 The aircraft's maintenance and inspection procedures for the entire aircraft; and*** ***3 The aircraft's flight training supplement; and*** **(e) A statement that the manufacturer will monitor and correct safety-of-flight issues through the issuance of safety directives and a continued airworthiness system that meets the identified consensus standard;** **(f) A statement that at the request of the FAA, the manufacturer will provide unrestricted access to its facilities;** (g) In accordance with a production acceptance test procedure meeting the applicable **consensus standard, a statement that the manufacturer-** *1 Ground and flight tested the aircraft;* *2 Found the aircraft performance acceptable; and* *3 Determined the aircraft is in a condition for safe operation.*
response	*Noted* Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment	*268* comment by: *Gorden WIEGELS* Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph". This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in …". The wording as published in the NPA is considered as fully suitable.
response	*Accepted* Presentations have been changed.

comment	*352* comment by: *British Gliding Association* **Overview and Common Items** In order better to understand the stated approach the BGA seeks more clarity the **positions of Qualified Entities and Assessment Bodies**, how and by whom they are approved, their liabilities, who they would answer to, and under which circumstances. In particular we could foresee that the legal status of QA's and AB's could well vary under different national laws. Here in UK, we believe that the Competent Authority may not look well on delegations of such roles, and in such circumstances, the NPA provisions may well be less useful here than in other nations. This can hardly be considered to be a pan-European approach. In our view the proper development of the scope of QA's and AB's is key to the success of this welcome approach.
response	*Noted* Please see CRD Part I paragraph b(6).

comment	*375* comment by: *O. Reinhardt / Flightdesign* Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph". This approval is explicitly commented, as there are presentations from EASA in circulation, that – probably due to historic reasons of the evolving matter – quote the engines as „piston engines installed in …". The wording as published in the NPA is considered as fully suitable.
response	*Accepted* Presentations have been changed.

comment	*391* comment by: *Thomas Wendt* **Comment 20** **Page 5/6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Overview of the proposals included in this NPA** Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".

	This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.
response	*Accepted* Presentations have been changed.

comment	*420* comment by: *Flight Design GmbH Matthias Betsch CEO* Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph". This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.
response	*Accepted* Presentations have been changed.

comment	*427* comment by: *Light Aircraft Association UK* LAA is pleased to see that the definition for ELA1 no longer includes 'a *piston* engine installed in...'. This gives flexibility for the future for alternative powerplant technologies. Although this might potentially allow turbine engines, the practicalities of gaining an approval on the size and weight of aircraft involved (and gaining noise and emissions approvals) would deter most potential applicants. It does, however, open the way for the serious development of electrically powered aircraft.
response	*Noted* The Agency thanks the commentator for their support.

comment	*429* comment by: *Light Aircraft Association UK* It is not clear in which category a gyroplane MTOM >560kg would fit (currently Annex II if <560kg).
response	*Accepted* The commentator is right: gyroplanes were not discussed in the NPA. *Gyroplanes* with a maximum take-off mass below 560 kg fall under the remit of Annex II. As this criterion was considered to encompass the vast majority of gyroplanes, there was no consideration given to gyroplanes in the NPA. In fall 2008, the Agency was approached by a designer that designs a gyroplane with a maximum take-off mass of 750 kg. After consultation of the review group, the Agency considers that the process used in such case should be ELA-2. Certification codes could be based on VLR or CS-27.

comment	*475* comment by: *Tegelbeckers* Comment 20 Page 5/6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Overview of the proposals included in this NPA

response

Noted

No comment was made.

comment

520 comment by: *aeroklaus*

Comment 20
Page 5/6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Overview of the proposals included in this NPA
Page 6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 1
Page 7 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 2
Page 26/27 B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability
Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph". This approval is explicitly commented, as there are presentations from EASA in circulation, that – probably due to historic reasons of the evolving matter – quote the engines as „piston engines installed in …". The wording as published in the NPA is considered as fully suitable.

response

Accepted

Presentations have been changed.

comment

551 comment by: *UK CAA*

Subject/Topic	**Scope of ELA**
NPA Section / Page	**Comment**
IV "Overview of the proposals included in this NPA. Page 5	The statement that ELA is not a new category of aircraft, but is a new process, might imply that, for modifications, the ELA regime can only be applied to aircraft that were originally certificated using the ELA process. ELA would not then be available to older aircraft, including vintage orphan aircraft. However, it is stated that applicants for the certification of aircraft that are within the ELA definition may use the ELA process, or the existing process. **Question** Would the Agency please clarify the applicability of the proposed ELA process to existing aircraft? Will the owners of older aircraft that are within the ELA definition have a choice of regulatory systems? If so, how will split fleets be regulated?

response

Noted

Designers of aircraft complying with the ELA criteria will be able to make use on a voluntary basis of the relevant provisions of Part-21 when adopted by the legislator. The comment relative to split fleet is not completely understood: electing to use the ELA process will not change systematically the certification basis. It will help for approval of modifications, repairs and replacement of parts. The approval of the organisation may change if they wish so.

comment *555* comment by: *UK CAA*

ELA 1: Demonstration of capability for design (page 5)
Design and Production Organisation Approvals (Page 9)

No requirement for DOA or APDOA

The proposal to allow Type Certification without a DOA/APDOA raises a number of issues:

1. Without a DOA/APDOA the QE, NAA, or EASA will have no basis to accept any report or data "without further showing" and so will be obliged to review/investigate all aspects of the design in much greater detail to be satisfied that compliance has been shown. This is likely to increase the costs for certification significantly rather than reduce them.

2. Without a DOA the designer will not have the privilege to classify changes or to approve repairs or minor modifications. Every modification and repair will have to be approved by the Agency; incurring Agency time and charges.

3. Part 21F and G requirements for production require that the 21G/21F approval holder has an arrangement with the DOA responsible for the design of the product. How will this Part 21F/G requirement be met if the TC Holder does not have a DOA/APDOA?

4. It is recalled that, during the many discussions about Airworthiness Directives, the Agency/Commission lawyers clarified that an Airworthiness Directive issued by EASA is a mandatory requirement placed on the DOA/APDOA to take action to restore the design to an acceptable standard. Will the Agency be able to issue Airworthiness Directives for ELA1 aircraft if there is no DOA/APDOA in place (and the Agency has not taken direct responsibility for continued airworthiness)?

5. As no DOA/APDOA is required for ELA1, the 'TC Holder' for an ELA1 aircraft has no obligations under Part 21. Once the Agency has certificated the type, who takes responsibility for all the usual in-service monitoring etc, is it the Agency (as it is for vintage orphan aircraft)?
It is notable that the existing "orphan" aircraft (without DOA support) are generally vintage types of demonstrably satisfactory design that have matured to the point where minimal design support is required for continuing airworthiness. By contrast the ELA1 aircraft will be "orphans at birth" that may require substantial design support during their early years of operation, which may not be available if the designer is not a DOA and so has no obligation to provide design support.

6. If there is no DOA/APDOA, what sanctions will the Agency have to ensure that the designer provides an acceptable level of design support for continuing airworthiness? (The Agency could revoke the TC; but that

would penalise aircraft owners for the failings of the designer).

7. As it is proposed in the NPA that no design approval will be needed for Type Certification it must follow that no DOA/APDOA will be required for STCs either. The concept in the NPA (page 14) that reduction in regulation will be mitigated by the designer being fully aware of their responsibilities may be undermined if the aircraft are extensively modified by other unapproved designers.

8. If there is no DOA/APDOA, what will be the arrangements for regular airworthiness review meetings of the kind that are currently routine between DOAs and the Agency as the means to ensure there is a satisfactory response to problems encountered in service?

Proposal
All of the issues above would be resolved if the NPA were to be amended to require a DOA, APDOA, or combined DOA/POA for all ELA aircraft.

response *Partially accepted*

1) The level of involvement will be higher compared to the DOA procedures. The simplicity of the products and the proximity of NAA/QE to the applicants should alleviate the concern
2) We are now considering to create simplified AMC to DOA
3) We have checked the rules in Part-21 and the requirement for arrangement with or for assistance to are related to the TC or design approval holder or DOA
4) ADs are addresssed to the design approval holder. Corrective actions are to be taken by same.
5) Paragraph 21A.44 define the obligations of the TC holder.
6) Regulation 216/2008 has created a system of fines and periodic penalty payments (Article 25) that could be used in such cases.
7) The demonstration of capability for STC holders will be done through the certification programme they will need to present to the agency's approval
8) Such meetings may be held with the TC holder if necessary. The TC holder is required to analyses occurences and report to the Agency.
Proposal: the Agency recognises that the concept of demonstration of capability through the certification programme is a help for new comers however render the approval of modifications burdensome. This is the reason why we are proposing as an option a DOA with privileges.

comment *557* comment by: *UK CAA*

ELA 1: Creation of a Certification Specification
Page 5

Proposed use of ASTM standards

Under "Overview, ELA 1, Creation of CS-LSA" and also "LSA 5" it is stated that the airworthiness code for aeroplanes up to 600kg will be ASTM F2245.

Article 5(2)(a) of the EASA Regulation requires that all bases of certification upon which an EASA Type Certificate is to be based must provide compliance with the "Essential Requirements" defined in Annex I of the Regulation. This

raises the following issues:

1. Has EASA determined that the current version of ASTM F2245 provides a means of compliance with Annex I?

2. ASTM F2245 is not under the control of the Agency and so may be revised without warning or notification. How will EASA ensure that, into the future, Type Certificates, STCs and other approvals requested on the basis of compliance with ASTM F2245 are compliant with the Essential Requirements of Annex I?

3. The ASTM codes are not easily available to the aviation community, in contrast to other EU codes which can be downloaded directly from the website. A system is needed to promote working to the latest version of the code, and to ensure that the latest version is still acceptable to the Agency.

4. ASTM F2245 does not appear to define any acceptable propeller certification standard (FAR-35, JAR-P, CS-P, etc). Propeller standards should be specified.

5. In the version of ASTM F2245 available to us (version 7), the possibility of using an engine certified to CS-E, or to an earlier national code, is not catered for. The Agency should ensure that the requirements allow the use of European type certificated engines.

6. The ASTM F2245 LSA approval in the USA is not an ICAO approval. For an ICAO approval the certificating authority needs to agree the specific code in detail and declare it to ICAO and its members as it's adopted requirements that comply with the Convention.

Proposal
All of the above point to the need for the Agency to produce its own requirements, rather than simply referencing the ASTM F2245. It is therefore proposed that the ASTM standards should not be used because they are not under the control of the Agency. EASA should define, control and notify the design standards for European aircraft.

response *Noted*

Relative to point 1.
Essential Requirements for initial airworthiness are given in Annex I of the Basic Regulation. CS-LSA has been checked against CS-VLA and CS-22 to confirm that no essential omissions exist. In general, it can be stated that structural and performance aspects match the CS-VLA philosophy. Design and Construction, Systems and Equipment philosophy match the CS-22 philosophy, applicable for powered sailplanes. Therefore it can be considered that the EASA certification basis for LSA complies with Annex I of the Basic Regulation. As in some areas the missing guidance material could lead to problems, additional information was introduced in the CS-LSA (for example clarification of demonstration for fatigue).
For points 2 to 6, please see CRD Part I paragraph (b) 8 on changes to CS-LSA

Proposal: the Agency will continue with CS-LSA with the modifications envisaged above. It should be noted that the applicability of CS-LSA is limited to aeroplanes of less than 600 kg for landplanes, and 650 kg for floatplanes and amphibians.

comment

647 comment by: *Martin Josef Warken*

Comment 20
Page 5/6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Overview of the proposals included in this NPA

Page 6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 1

Page 7 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 2

Page 26/27 B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".
This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.

response

Accepted

Presentations were changed.

comment

693 comment by: *Deutscher Aero Club e.V. (DAeC)*

DAeC misses one substantial modification to Part 21. Presently engine and propellers have to be certified separately from the airframe which leads to a high burden extra effort. DAeC proposes to allow the certification of the propulsion system in combination with the airframe certification process.

response

Noted

It has become increasingly clearer that the requirement for engine and propellers to be type certificated (as required by Article 5 of the Basic Regulation) may be a show stopper (Fees and Charges; organisation approvals for non aviation manufacturers) for LSA, powered sailplanes, ELA1 airships and possibly VLA. The proposal would be to issue restricted type certificates in such cases: this will be of no consequences for such aircraft as the draft operational rules envisage that the only limitations for the use of an aircraft are those included in its data sheet. Of course, the possibility to issue type certificates would remain open keeping in mind that the demonstration of capability for engine and propellers in such aircraft would be a certification plan.

comment

745 comment by: *Oliver*

Page 6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 1

Page 7 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 2

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This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.

response

Accepted

Presentations were changed.

comment

770 comment by: *Air Marugan*

Comment 20
Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".
This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.

response

Accepted

Presentations were changed.

comment

779 comment by: *Herbert HERGET*

Comment 14:
Creation of a Certification Specification - Light Sport Aeroplane (CS-LSA)
Following the philosophy of a self declaration basis, certification has to be limited to the issue of a "special airworthiness certificate", according to FAA-LSA: Eligibility. LSA are eligible for a special airworthiness certificate in the LSA category when the applicant provides a copy of the aircraft manufacturer's- (1) Written operating instructions. (2) Written maintenance and inspection procedures for the entire aircraft. (3) Flight training supplement. (4) Statement of compliance. This must contain: (a) The identity of the aircraft by make and model, serial number, class, date of manufacture, and consensus standar d used; (b) A statement that the aircraft meets the provisions of the identified consensus standard; (c) A statement that the aircraft conforms to the manufacturer's design data, using the manufacturer's quality assurance system that meets the identified consensus standard; (d) A statement that the manufacturer will make available to any interested person the following documents that meet the identified consensus standard: *1 The aircraft's operating instr uctions; 2 The aircraft's maintenance and inspecti on procedures for the entire aircraft; and 3 The aircraft's flight training supplement; and* (e) A statement that the manufacturer will monitor

	and correct safety-of-flight issues through the issuance of safety directives and a continued airworthiness system that meets the identified consensus standard; (f) A statement that at the request of the FAA, the manufacturer will provide unrestricted access to its facilities; (g) In accordance with a production acceptance test procedure meeting the applicable consensus standard, a statement that the manufacturer- *1 Ground and flight tested the aircraft; 2 Found the aircraft performance acceptable; and 3 Determined the aircraft is in a condition for safe operation.*
response	*Noted* Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process p. 6

comment	*46* comment by: *Kai Bode* If Gyroplanes are included, it would make sense to includethe possibility of collective pitch change of gyroplanes to allow so called jump-take-off capability (pre-rotation of high intertia rotor to high rotational speed, then disengage pre-rot-drive and apply positive blade pitch and use rotor inertia for lift-off) should be included.
response	*Accepted* *Gyroplanes* with a maximum take-off mass below 560 kg fall under the remit of Annex II. As this criterion was considered to encompass the vast majority of gyroplanes, there was no consideration given to gyroplanes in the NPA. In fall 2008, the Agency was approached by a designer that designs a gyroplane with a maximum take-off mass of 750 kg. After consultation of the review group, the Agency considers that the process used in such case should be ELA-2. Certification codes could be based on VLR or CS-27. The so-called jump-take-off capability could be the subject of the special condition.

comment	*68* ❖ comment by: *Michael GREINER* **NOTE:** This comment was made against this section of the NPA. This comment and the response are however only reflected once at page 6 of this CRD in order to improve readability.
response	*Noted*

comment	*133* comment by: *Féderation Française de Planeurs Ultralégers motorisés* General comment Based on its own experience as the biggest european microlight pilot association and being the french leisure aviation activity showing the highest rate of growth -currently 13000 pilots- the FFPLUM assesses the general aviation crisis (outside microlights!) as resulting from the increasing of the regulatory harassment it experiences from both european and national aviation authorities rather than from the flying hour increasing costs. These increased regulations are officially justified by a desire of increasing flight safety in this leisure activity, but prove to have no practical effect - at

least on safety - except decreasing the number of pilots.
As dealing with aircraft currently outside of the EASA domain, FFPLUM is not directly concerned by any new regulation being issued by EASA for the "non-complex aircraft" within its scope.
However FFPLUM welcomes this initiative, which is likely to release the pressure currently exerting many Europeans pilots who would like to benefit from the light regulatory frame microlight aviation is enjoying in many countries, without complying to the maximum weight and minimum stall speed limits, which justify these light regulations.
To guarantee the success of this new regulation, the FFPLUM thinks that EASA showed pusillanimity in its approach of the future certification process, particularly when it comes to the ELA1 class, which is intended to encompass the greatest possible number of leisure aircraft.
It is only by setting up a self certification by the manufacturer that the costs of this process could be drastically reduced and thus support the creativity and the competition essential to the development of attracting leisure aviation.
Instead of setting up a heavy process of control involving many -costly- third parties, the Agency could have been satisfied with a survey control and probing system, reserving it's right to check the declarations of the manufacturers, or when failure to match the certification codes is suspected.
Thus, the FFPLUM estimate that the evolution suggested, even if it constitutes for the existing certified aircraft manufacturers a noticable lightening of their tasks, will be insufficient to stop the decline of the leisure aviation. This is more than certain when reviewing the currently published proposals related to licencing and maintenance procedures, which are practically as heavy as what prevailed before (national legislations), FFPLUM express its large disappointment of the way those promising new rules are developed.
In such circumstances the FFPLUM members express firmly their clear and determined choice that aircraft below 450kg MTOW (472,5Kg with recovery parachute) should remain outside of the scope of EASA , in Annex II. FFPLUM is very satisfied with the current situation and has no wish whatsoever to see it change.

response *Partially accepted*

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment *221* comment by: *Scandinavian Flyers*

I will give my support for the ELA process. Good direction for the light aircrafts and for the whole industry.

response *Noted*

The Agency thanks the commenator for their support.

comment *357* comment by: *SAMA Swiss Aircraft Maintenance Association*

(Creation of a system of standard modifications and standard repairs):
The national practices for 'current' maintenance, including simple modifications and repairs, are based on FAA AC 43-13(). These practices are also used in formation and training of maintenance engineers. We have no indications that the (continued) use of these standards in practical work on non large aircraft could present a safety risk. If EASA considers that - for formal reasons - it must create a dedicated CS to the same purpose in the future, it should be clarified that an NAA shall still accept a reference to AC 43-13 as approved data in the mean time, even if no correspnding mention is included in the

	original manufacturers maintenance documents.
response	*Not accepted* Part MA.404 requires that maintenance data is approved by the Agency or by an approved Part-21 organisation as appropriate. The creation of the CS is intended to meet this need for Agency approval. The use of data included in AC 43-13 is only possible today when included in the manufacturer maintenance documents.

comment	*392* comment by: *Thomas Wendt*
response	*Noted* No comment was made.

comment	*476* comment by: *Tegelbeckers* Page 6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 1
response	*Noted* No comment was made.

comment	*706* comment by: *Europe Air Sports, VP* EAS opinion is that EASA needs to think, clarify and produce procedures and simple bureaucratic guidelines how the transition from CS aircraft to ELA aircraft and vice versa will be possible. If no transitional arrangement will be offered as an option, the whole effort and process might be not successful, especially for the ELA 2 category. Proposal Develop procedures and guidelines for the transition from CS aircraft to ELA aircraft and vice versa
response	*Not accepted* There is no need for transition provisions as proposed by the commentator. Designers of existing aircraft complying with the ELA criteria will also be able to make use on a voluntary basis of the relevant provisions of Part-21.

A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 1 p. 6-7

comment	*15* comment by: *managing director* Dear Sirs, I would like to comment on Article 2 / ELA 1 Definitions. GEFA-FLUG is a certified manufacturer of hotair airships which have a volume of up to 3.000 m³ and can carry between two and four persons. At the time of writing we are building airships number 48, 50 and 51.

The 2.550 m³ limitation is insufficient, because todyas hotair airships have a larger volume to achieve a longer envelope life time.

These airships use (same as the UK manufacturer Cameron Balloons and Lindstrand Balloons) microlight engines (mainly Rotax) and propellers (Junkers, Helix) which are unapproved in the understanding of EASA, but are manufactured under grandfather clauses. If these products are not included in ELA 1 it will be very difficult to maintain and repair these aircraft respectively their components. None of todays hotair airship manufacturers are certified under EASA 145, nor can they afford that.

At the moment GEFA-FLUG employs 20 people, 10 of them are directly engaged with the development, manufacture or maintenance of hotair airships.

I would very much like to see the limitation rising to 3.400 m³ as with hotair balloons.

Addendum:
At the next hotair airship world championship in St. Petersburg (this summer) more or less all of the competitors will fly with airships of more than 2.500 m³.

Best regards

Karl Ludwig Busemeyer
Managing director GEFA-FLUG
BBAC (CAA) inspector class 3, airships included

response *Accepted*

Please see CRD Part I paragraph b(2) and the resulting text.

comment *16* comment by: *John DAVIES*

The 2500 m^3 upper volume limit for hot air airships is insufficient for sporting purposes. Modern 2 seat hot-air airships have volumes from 2,265 to 3,400 m^3. There is no difference in technology, components (e.g. Engine or propeller) or operational characteristics between the smallest and the largest; the larger volume allows the airship to be operated at higher altitudes / ambient temperatures.

These airships generally use microlight engines and propellers which are unapproved products (in EASA terms). If these airships are not included in ELA 1 it will be extremely difficult to find maintenance and overhaul for their major components (as none of the maintenance companies require EASA approvals for there microlight businesses).

The ELA 1 upper volume limit for hot air balloons and hot air airships should be harmonised at 3,400 m^3

response *Accepted*

Please see CRD Part I paragraph b(2) and the resulting text.

comment *68* ❖ comment by: *Michael GREINER*

	NOTE: This comment was made against this section of the NPA. This comment and the response are however only reflected once at page 6 of this CRD in order to improve readability.
response	*Noted*

comment	*268* ❖ comment by: *Gorden WIEGELS* Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph". This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in …". The wording as published in the NPA is considered as fully suitable.
response	*Accepted* Presentations have been changed.

comment	*286* comment by: *Joel DUBOIS* La limite entre ELA1 et ELA2 est fixée à 1000kg, qui est un chiffre rond du système métrique mais qui ne traduit pas nécessairement la réalité aéronautique. Il est préférable de fixer cette limite en examinant le poids des avions actuels de construction simple et éprouvée, fabriqués avec des moteurs fiables mais lourd et des matériaux bon marché. Une limite de 1200 kg serait sans doute plus représentative du parc d'avion actuel. Le maintien de la limite de 1000kg conduira inévitablement les constructeurs à rechercher des solutions légères en se plaçant aux limites des coéficients de sécurité réglementaires et donc sans marge supplémentaire et en utilisant des moteurs légers mais moins fiable que les moteurs éprouvés (continental ou lycoming) et en ayant reccourt à des matériaux chers tel que la fibre de carbone. De plus cela prive les avions ELA1 d'une motorisation diesel car plus lourde et aucune amélioration des pots d'échappement n'est possible. Bref celà va à l'encontre des objectifs de définir une norme de certification moins couteuse, à niveau de sécurité égal et respectueuse de l'environnement Une limite tenant compte du poids de l'avion et de sa vitesse mini et/ou maximum me semble préférable. Ainsi les avions 4 places à moteur à piston, train fixe, de 1200kg en charge et ne dépassant pas 200 km/h devrait relever d'ELA.
response	*Accepted* Please see CRD Part I paragraph b(2) and the resulting text.

comment	*375* ❖ comment by: *O. Reinhardt / Flightdesign* Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph". This approval is explicitly commented, as there are presentations from EASA in circulation, that – probably due to historic reasons of the evolving matter – quote the engines as „piston engines installed in …". The wording as published in the NPA is considered as fully suitable.
response	*Accepted*

Presentations have been changed.

comment

394 comment by: *Thomas Wendt*

Page 6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 1

Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".
This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.

response

Accepted

Presentations have been changed.

comment

426 comment by: *Flight Design GmbH Matthias Betsch CEO*

Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".
This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.

response

Accepted

Presentations have been changed.

comment

648 comment by: *Martin Josef Warken*

Comment 20
Page 5/6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Overview of the proposals included in this NPA

Page 6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 1

Page 7 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 2

Page 26/27 B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".
This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.

response | *Accepted*

Presentations have been changed.

comment | *771* comment by: *Air Marugan*

Comment 20
Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".
This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.

response | *Accepted*

Presentations have been changed.

A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 2 p. 7-8

comment | *45* comment by: *Kai Bode*

Gyroplanes (Gyrocopters) missing: The ELA 2 specification should include gyroplanes explicitly for more than 2 occupants. Gyroplane are non complex aircraft.

response | *Noted*

Gyroplanes with a maximum take-off mass below 560 kg fall under the remit of Annex II. As this criterion was considered to encompass the vast majority of gyroplanes, there was no consideration given to gyroplanes in the NPA. In fall 2008, the Agency was approached by a designer that designs a gyroplane with a maximum take-off mass of 750 kg. After consultation of the review group, the Agency considers that the process used in such case should be ELA-2. Certification codes could be based on VLR or CS-27.

comment | *50* comment by: *Filippo De Florio*

If the ELA processes could not be advantageous for sales this means that the TC issued with these processes are TCs of second category?
I believe that this statement is somewhat ambigous

response | *Not accepted*

ELA is a process that allows a simplified process to obtain a TC or RTC as appropriate. These will not be second category TC or RTC.

comment | *57* comment by: *Filippo De Florio*

I agree to increase the MTOM of VLA above 750kg (850?). I also suggest the introduction of the U and A cat. as in CS 23, and the review and update of the crashworthiness requirements (without dynamic tests).

response | *Partially accepted*

Please see CRD Part I paragraph b(2) and the resulting text.

comment *188* comment by: *Ingmar Hedblom*

It is noted that there are plans to suggest increased MTOM for CS-VLA. This is supported since the new CS-LSA is valid up to 600kg there will otherwise be too little mass difference between these specifications. However a raised mass value should not be accompanied with more stringent requirements, on the contrary a review should be performed to see if a number of "CS-23-like" paragraphs could be more similar to ASTM F2245.

response *Partially accepted*

Please see CRD Part I paragraph b(2), b(8) and the resulting text.

comment *193* comment by: *Walter Gessky*

21A.44 (a) Continuing Airworthiness ELA 1
Comment:
According 21A.14 (c) for an ELA1 aircraft the applicant may elect for demonstration of capability through approval of a certification programme detailing the means for compliance demonstration.
According to 21A.44a the holder of a type certificate shall continue to meet the qualification requirements for eligibility under 21A.14.
It should be clarified, that ELA 1 aircraft meets the qualification requirements for eligibility under 21A.14, even when the TC holder does not hold an AP to DOA or DOA.

response *Noted*

21A.14 defines specific eligibility criteria for ELA1. When the reference is made in 21A.44, for ELA1 these are the criteria that are meant and not DOA/POA.

comment *194* comment by: *Walter Gessky*

Engine and Propeller TC for LSA
Comment:
There shall be no separate TC required for engines and propellers installed in an ELA 1 aircraft (see also part 22). The airframe manufacturer may takeover this task. This is common practise in part 22 and the micro light level and is working well. The technical content of an engine and propeller certification can be demonstrated also by one organisation with sufficient engineers.
Proposal
Change 21A.15
Add (d)
(d) Application for an ELA 21 type certification may also include engine and propeller type certification.

response *Partially accepted*

Please see CRD Part I paragraph b(1).

comment *195* comment by: *Walter Gessky*

21A.47 TC Transfer
Comment:

According 21A.14 (c) for an ELA1 aircraft the applicant may elect for demonstration of capability through approval of a certification programme detailing the means for compliance demonstration.
According to 21A.44a the holder of a type certificate shall continue to meet the qualification requirements for eligibility under 21A.14.
For transfer of a type certificate to a natural or legal person is only allowed when the holder undertakes the obligations of 21A.44, and for this purpose its ability to qualify under the criteria of 21A.14.
It should be clarified, that ELA 1 aircraft meets the qualification requirements for eligibility under 21A.14, even when the TC holder does not hold an AP to DOA or DOA.
See also comment to 21A.44.

response *Noted*

Please see response to comment No 193.

comment *196* comment by: *Walter Gessky*

Subpart I, Noise Certificates
Comment:
Determination of the exact noise level is complex and a time and money consuming issue. The basic principle is that the ICAO noise level must be fulfilled.
Proposal :
ELA 1 aircraft do not need a type certificate data sheet for noise and a noise certificate. Noise levels must be demonstrated during certification to show compliance with the Article 6 requirements.

Add to 21A.41
- (a) Existing text.

•(b) By way of derogation from paragraph (a) for aircraft defined in 21A.14(c) instead of the type certificate data sheet for noise the noise data will we included in the aircraft flight manual limitation section and verify that the noise level is below the ICAO Annex 16 limits.
Add to Subpart I, **21A.201**
"Except for aircraft as defined in 21A.14(c), this ....."
Justification:
- a. For ELA 1 aircraft noise certification could be able to state that the emitted noise is below the ICAO Annex 16 limits. This would reduce the burden on the applicants for noise tests because e.g. for configuration where it is obvious that the noise levels are lower, due to new engine and propeller installation according to the existing rules noise tests has to be carried out. This would be a problem during winter time where the adequate weather situations are for longer periods not available.
- b. The issuance of a type certificate for noise could be deleted. Noise data could be notified in the approved section of the FM (limitation section).
- c. Noise certificate could be deleted, when the noise data are mentioned in the approved section of the FM. ICAO Annex 16 Vol I does not require a noise certificate. Any approved document which includes the noise data is acceptable.

response *Partially accepted*

Environmental Protection is outside the scope of this NPA. Revision of implementing rules for noise certification should be considered after the

outcome of NPA 2008-15 is clear.

comment *268* ❖ comment by: *Gorden WIEGELS*

Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".

This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in …". The wording as published in the NPA is considered as fully suitable.

response *Accepted*

Presentations have been changed.

comment *271* comment by: *Klaus Erger*

Page 8 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Qualified Entities
negative - the proposal as presented here is in the suitable direction, but not reaching far enough.
Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a).
In addition to this, it must be ensured that a common level is achieved for applicants throughout all the EASA member states. This is mostly the issue from side of the QE´s, when they are approved and supervised by the Authority solely. Involvement of the NAA´s because of varying capabilities in practice shows that this is not the case and this will lead to different safety levels and unfair competition . This problem can be overcome by a Pan European QE. It is not the task of the EASA, or this NPA and comments, to initiate such a Pan European QE, but the effect and usage, when it comes to existence, must be defined.
Proposal 2: Pan-European QE´s by their pan European nature must be appointed by the Agency. In case the applicant selects the Pan- European QE, combined DOA/POA applications will be automatically dealt with by the Agency, and not through CA´s or NAA´s.

response *Noted*

Please see CRD Part I paragraph b(6).

comment *375* ❖ comment by: *O. Reinhardt / Flightdesign*

Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".
This approval is explicitly commented, as there are presentations from EASA in circulation, that – probably due to historic reasons of the evolving matter – quote the engines as „piston engines installed in …". The wording as published in the NPA is considered as fully suitable.

response *Accepted*

Presentations have been changed.

comment	*393* comment by: *Thomas Wendt* **Page 7 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 2** Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph". This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.
response	*Accepted* Presentations have been changed.

comment	*420* ❖ comment by: *Flight Design GmbH Matthias Betsch CEO* Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph". This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.
response	*Accepted* Presentations have been changed.

comment	*430* comment by: *Light Aircraft Association UK* The issue of an ICAO compliant Certificate of Airworthiness would be good for the industry, allowing aircraft to be sold and operated anywhere in the world.
response	*Partially accepted* We are exploring the issue of non-ICAO RTC in order to be able to issue such document to US-LSA.

comment	*444* comment by: *Aero-Club of Switzerland* At the Aero-Club of Switzerland we think that 2000 kg MTOM is a bit much for flying machine which is named "Very Light Rotorcraft".
response	*Noted* The ELA process is only applicable to Very Light Rotorcraft (MTOM less than 600 kg) and to gyroplanes with a maximum take-off mass of 750 kg: the process is in that case ELA2 as the complexity of such machines does not allow to accept a certification programme as a means to justify capability to design. There is no intention to accept VLR up to 2 000 kg: there is a task in the rulemaking programme to possibly extend the scope of CS-VLR to 750 kg but with no timeframe defined.

comment	*477* comment by: *Tegelbeckers*

Page 7 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 2

response

Noted

No comment was made.

comment

529 comment by: *Austro Control GmbH*

Engine and Propeller TC for LSA
Comment:
There shall be no separate TC required for engines and propellers installed in LSA aircraft. The airframe manufacturer may takeover this task. This is common practise on the micro light level and experience is showing that this approach is satisfactory. The technical content of an engine/propeller certification can be demonstrated also by one organisation with sufficient engineers. This may need a number of changes in different requirements. The proposal is for the existing Part 21.

Proposal
Change 21A.15
Add (d)
(d) Application for an certification within the ELA1 may also include engine and propeller type certification.

response

Partially accepted

It has become increasingly clearer that the requirement for engine and propellers to be type certificated (as required by Article 5 of the Basic Regulation) may be a show stopper (Fees and Charges; organisation approvals for non aviation manufacturers) for LSA, powered sailplanes, ELA1 airships and possibly VLA. The proposal would be to issue restricted type certificates in such cases: this will be of no consequences for such aircraft as the draft operational rules envisage that the only limitations for the use of an aircraft are those included in its data sheet. Of course, the possibility to issue type certificates would remain open keeping in mind that the demonstration of capability for engine and propellers in such aircraft would be a certification plan.

comment

558 comment by: *UK CAA*

Subject/Topic	**Compliance with ICAO and Regulation 216/2008**
NPA Section/Page	**Comment**
Section A.IV; Further Considerations "Conformity to ICAO..." bottom paragraph, Page 7	This paragraph highlights that ICAO Annex 8 does not specify airworthiness standards for aircraft under 750kg. However, the NPA does not address the obligation under Regulation 216/2008 to ensure that all aircraft that are to be granted a Type Certificate comply with the essential requirements for airworthiness set down in Annex I to the Regulation, regardless of their mass. **Proposal** The NPA/Opinion must ensure that any standards adopted for ELA comply with the essential requirements in Annex I of Regulation 216/2008. Or the Opinion must propose that ELA aircraft be issued with Restricted Type Certificates and Restricted CofA.

response

Accepted

Essential Requirements for initial airworthiness are given in Annex I of the Basic Regulation. CS-LSA has been checked against CS-VLA and CS-22 to confirm that no essential omissions exist. In general, it can be stated that structural and performance aspects match the CS-VLA philosophy. Design and Construction, Systems and Equipment philosophy match the CS-22 philosophy, applicable for powered sailplanes. Therefore it can be considered that the EASA certification basis for LSA complies with Annex I of the Basic Regulation. As in some areas the missing guidance material could lead to problems, additional information was introduced in the CS-LSA (for example clarification of demonstration for fatigue).

comment

559 comment by: *UK CAA*

Subject/Topic	**Potential occupancy of ELA2 balloons and the proposed certification process**
NPA Section / Page	**Comment**
A. Explanatory Note, IV, Further considerations on the ELA process, ELA 2; Page 7	Relating to the 'inconsistency' comment in the first paragraph of the text, there are production hot air balloons that can currently take 30 passengers plus 1 or 2 crew. Thus, the occupancy (and hence potential for loss of life from a single incident) disparity between balloons and all the other classes of aircraft in the proposed ELA 2 class is dramatic. The text implies that the regulatory oversight for ELA 2 balloons will be unchanged from currently. This is not correct, as ELA 2 proposes a number of alterations from current practice.

response

Not accepted

It has been shown by long certification and service history also before EASA that the level of safety for products as in ELA 2 is not compromised.
The inherent risk for balloons and airships is definitively lower than e.g. helicopters, so a higher number of occupants is acceptable.
The accident history doesn't seem to justify a change of this policy.

comment

601 comment by: *klaus M*

Comment 20
Page 5/6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Overview of the proposals included in this NPA
Page 6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 1
Page 7 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 2
Page 26/27 B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability
Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph". This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.

response

Accepted

Presentations have been changed.

comment

618 comment by: *European Sailplane Manufacturers*

For the definition of ELA 2, especially the problem regarding the "complex motor-powered-aircraft" see our comment #98.

response

Accepted

Please see our reply to comment No 98.

comment

649 comment by: *Martin Josef Warken*

Comment 20
Page 5/6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Overview of the proposals included in this NPA

Page 6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 1

Page 7 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 2

Page 26/27 B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".
This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.

response

Accepted

Presentations have been changed.

comment

673 comment by: *DGAC France*

1a. COMMENT TO :
- ü **Explanatory note**

1b. AFFECTED PARAGRAPH :

A IV end of page 7, last paragraph of ELA2 block:

2. Comment:
Il est essentiel de définir précisément si les documents de navigabilité ELA1 et ELA2 seront de niveau OACI. La conformité doit être portée sur les certificats de navigabilité et sur la fiche de navigabilité.

Courtesy translation:

The question for the ELA 1 and ELA 2 airworthiness certificate to be or not to be compliant with ICAO Annex 8 must be determined. This shall be clearly written on the certificates and also in the data sheets.

response *Partially accepted*

We may be issuing RTC non-ICAO for CS-LSA aircraft in order to be able to issue such documents for US-LSA. Other ELA may be ICAO compliant.

comment *772* comment by: *Air Marugan*

Comment 20

Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".
This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.

response *Accepted*

Presentations have been changed.

A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Qualified Entities p. 8

comment *18* comment by: *SHVL Chocen*

The idea contained in Basic Regulation (EC) No 216/2008 seems to be progressive. Nevertheless the Criteria for qualified entities contained in Annex V. would be hardly complied with by other organizations, than national authorities.
The requirement of par.1 for the Director and staff responsible for carrying the checks to exclude anybody who „is involved ...in.....constituents or systems or **in their operations, service provisions or use."**
The Czech Republic is an example of small country, but active in e.g. UL or LSA design and production. Besides NAA there exist here two candidates on the Q.E.: Technical staff of the Czech Aeroclub (AeCR) and the similar body of Aeronautical Amateur Association (LAA).
If we refuse the idea of engagement new professional staff members for the reason of extreme costs, we do not find any expert member of mentioned bodies, who should not be engaged in operations, service provisions and use.
Par. 2 of Annex V. requires that „the entity and the staff reponsible for certification...must carry their duties **with the greatest possible professional integrity and technical competence** and must be free of any pressure and incentive.."
By more simple words: these people must be familiar both with the practical operation and the „scientific" parts of airworthiness as the aerodynamics, aeroelasticity, fatique, powerplants, crashworthiness.... etc.
Suggest to change the principle of Q.E. The core staff should be the professional Director, complying with Annex V. requirements, with (two?) assistants. This staff should be the part of some organization mentioned supervised by the NAA. The particular Certification Teams should be nominated according to the particular program / task and external experts from industry,

operational environment and Technical Universities should be involved.

response *Noted*

Please see CRD Part I paragraph b(6).

comment *41* comment by: *John Tempest*

The concept of Qualified Entities is strongly supported.
Proximity of specialist Qualified Entities will no doubt invigorate the light aircraft industry, and will provide a regulatory function focused on that industry.

response *Noted*

The Agency thanks the commentator for their support
Please see CRD Part I paragraph b(6).

comment *52* comment by: *Filippo De Florio*

OK for the QEs provided there are teams sufficently qualified for making a type certification. Because they are under the control of EASA and/or NAAs there is the possibility that another ring is added to the certificatiion chain.
I still believe that EASA should obtain the maximum support from the NAAs also for type certification. QEs should be the exception.

response *Noted*

Please see CRD Part I paragraph b(6).

comment *68* ❖ comment by: *Michael GREINER*

NOTE:
This comment was made against this section of the NPA. This comment and the response are however only reflected once at page 6 of this CRD in order to improve readability.

response *Noted*

comment *75* comment by: *Dyn'aéro*

Commentaire de la Note explicative de la NPA 2008-07, Paragraphe 4, section Qualified Entities et Competent Authorities
Comments on the explanatory note of the NPA 2008-97, Paragraph 4, Qualified Entities and Competent Authorities section

Proposition :
Dyn'Aéro propose que soit ajoutée une note comme suit :

"Les vérifications effectuées par la QE seront réalisées conformément au programme de certification et, quoi qu'il en soit, limitées de la manière suivantes :

- Eléments de structure primaire qui feront l'objet ensuite d'une obligation d'émission de EASA FORM 1,
- Evaluation en vol par un pilote qualifié en vue de déterminer si les qualités de vol permettent d'obtenir un niveau global de sécurité satisfaisant dans le domaine d'utilisation de l'aéronef.

- Revue de la documentation de l'aéronef par rapport au code technique de référence,

Par voie de conséquence :

- Les éléments de structure secondaire ne feront pas l'objet d'une vérification spécifique,
- La détermination des performances de croisière, des qualités de vol secondaires non primordiales pour la sécurité dans le cadre de l'utilisation de l'aéronef ne feront pas l'objet d'une vérification spécifique."

Raisons :

Malgré l'introduction de la notion d'approbation préalable du programme de certification, l'étendue des vérifications réelles devant être faite par la QE (ou CA) n'est pas explicite.

Aussi, et de la même manière que le point précédent, une **telle imprécision est de nature a entraîner des interprétations qui irait à l'encontre des objectifs du texte**.

Il est donc indispensable que le cadre des vérifications de la QE soit clairement établi.

Dans la mesure où il est envisagé que les EASA FORM 1 soient limités à un certains nombres d'éléments jugé les plus importants pour la sécurité, il serait logique de limiter les actions en profondeur de la QE a ces éléments.

Proposal:

Dyn'Aéro proposes to add a note as follows:

"Audits carried out by the QE will be conducted in accordance with the certification program and, in any event, limited to the following:

- *Elements of primary structure which will be then a bond issuance of EASA FORM 1,*
- *Test flight by a qualified pilot to determine whether the flight handling qualities can get a global safety level meeting in the domain of operation of the aircraft.*
- *Review of the aircraft documentation compare with the reference airworthiness code.*

And hence,

- *Elements of secondary structure will not be suitable for a specific audit,*
- *The determination of cruise performances, the secondary handling qualities without primary importance for safety in connection with the operation of the aircraft will not be suitable for a specific audit. "*

Reasons:

Despite the introduction of the concept of prior approval certification program, the extent of actual checks to be made by the QE (or CA) is not explicit.
Also, in the same way as the previous item, ***such vagueness is likely a result of interpretations that would run counter to the objectives of the text.***

It is therefore imperative that the context of verification of the QE is clearly established.

Insofar as it is envisaged that the EASA FORM 1 are limited to a certain number of elements deemed most important for safety, it would make sense to limit the actions of the QE to these elements.

response

Partially accepted

The Agency agrees that ELA certification procedures are needed and will develop them in due course.

comment

80 comment by: *PZL-Austria Handelsagentur*

Proposal:

I propose to add a note as follows:

"Audits carried out by the QE will be conducted in accordance with the certification program and, in any event, limited to the following:

- *Elements of primary structure which will be then a bond issuance of EASA FORM 1,*
- *Test flight by a qualified pilot to determine whether the flight handling qualities can get a global safety level meeting in the domain of operation of the aircraft.*
- *Review of the aircraft documentation compare with the reference airworthiness code.*

And hence,

- *Elements of secondary structure will not be suitable for a specific audit,*
- *The determination of cruise performances, the secondary handling qualities without primary importance for safety in connection with the operation of the aircraft will not be suitable for a specific audit. "*

Reasons:

Despite the introduction of the concept of prior approval certification program, the extent of actual checks to be made by the QE (or CA) is not explicit.
Also, in the same way as the previous item, ***such vagueness is likely a result of interpretations that would run counter to the objectives of the text.***

It is therefore imperative that the context of verification of the QE is clearly established.

Insofar as it is envisaged that the EASA FORM 1 are limited to a certain number of elements deemed most important for safety, it would make sense to limit the actions of the QE to these elements

response

Partially accepted

The Agency agrees that ELA certification procedures are needed and will develop them in due course.

comment

86 comment by: *René Fournier*

With respect to the Qualified Entities to be appointed, the delegation of tasks by the Agency or the Competent Authorities should be thoroughly weighted. Such outsourcing of tasks to private entities should not rigidify the system through e.g. a too conservative interpretation of Certification Specifications driven by internal insurance policy consideration. Nor should resorting to such

	entities entail an increase of costs for the stakeholders.
response	*Noted* Please see CRD Part I paragraph b(6).

comment	*162* comment by: *ENAC* The NPA introduces the use of Qualified Entities, although the subject is still under discussion. It is not clear what benefit could add to simplify the process. At the moment the investigation for the certification of the aircraft falling in the proposed category of ELA is carried out by the Agency and NAA, it is not clear in case of a simplified process why the use of QEs instead NAA could improve the efficency of the process.
response	*Noted* Please see CRD Part I paragraph b(6).

comment	*167* comment by: *Alexander Eich* negative - the proposal as presented here is in the suitable direction, but not reaching far enough. Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a). In addition to this, it must be ensured that a common level is achieved for applicants throughout all the EASA member states. This is mostly the issue from side of the QE´s, when they are approved and supervised by the Authority solely. Involvement of the NAA´s because of varying capabilities in practice shows that this is not the case and this will lead to different safety levels and unfair competition . This problem can be overcome by a Pan European QE. It is not the task of the EASA, or this NPA and comments, to initiate such a Pan European QE, but the effect and usage, when it comes to existence, must be defined. Proposal 2: Pan-European QE´s by their pan European nature must be appointed by the Agency. In case the applicant selects the Pan- European QE, combined DOA/POA applications will be automatically dealt with by the Agency, and not through CA´s or NAA´s.
response	*Partially accepted* Please see CRD Part I paragraph b(6).

comment	*185* comment by: *Ingmar Hedblom* The concept of qualified entities in the certification process is supported. As mentioned in the NPA this can improve the efficiency of the process and increase the proximity with applicants. This is especially important for applicants in countries far from the EASA office location in Cologne. However, there must be an incitament for applicants to use QE i the form of reduced EASA and CA charges. QE will normally not work without payment and

	therefore a review of the EASA fees and charging system is urgently needed.
response	*Noted* Please see CRD Part I paragraph b(6).

comment	*190* comment by: *Walter Gessky* **A. Explanatory Note IV, qualified entities** Comment: Use of QE should not be regulated in with this NPA. The allocation of tasks to qualified entities will be done by the Agency based on MB allocation procedures. The applicant will pay fees and charges to the Agency for certification work. For certification task allocated the Agency will compensate the costs of NAA`s or qualified entities based on the conditions of the service contract. EU regulations with regard to contracts between EASA and external parties (NAA`s qualified entities) has to be taken into consideration. In the Attachments with regard to allocation of tasks only QE are mentioned. It should be noted that according the basic regulation EASA can allocate certification tasks to NAA`s and QE`s. this has to be corrected.
response	*Noted* Please see CRD Part I paragraph b(6).

comment	*215* comment by: *DynAero Iberica* Commentaire de la Note explicative de la NPA 2008-07, Paragraphe 4, section Qualified Entities et Competent Authorities Comments on the explanatory note of the NPA 2008-97, Paragraph 4, Qualified Entities and Competent Authorities section Proposition : DynAero Ibérica propose que soit ajoutée une note comme suit : "Les vérifications effectuées par la QE seront réalisées conformément au programme de certification et, quoi qu'il en soit, limitées de la manière suivantes : • Eléments de structure primaire qui feront l'objet ensuite d'une obligation d'émission de EASA FORM 1, • Evaluation en vol par un pilote qualifié en vue de déterminer si les qualités de vol permettent d'obtenir un niveau global de sécurité satisfaisant dans le domaine d'utilisation de l'aéronef. • Revue de la documentation de l'aéronef par rapport au code technique de référence, Par voie de conséquence : • Les éléments de structure secondaire ne feront pas l'objet d'une vérification spécifique, • La détermination des performances de croisière, des qualités de vol secondaires non primordiales pour la sécurité dans le cadre de l'utilisation de l'aéronef ne feront pas l'objet d'une vérification spécifique." Raisons : Malgré l'introduction de la notion d'approbation préalable du programme de certification, l'étendue des vérifications réelles devant être faite par la QE (ou CA) n'est pas explicite.

Aussi, et de la même manière que le point précédent, une telle imprécision est de nature a entraîner des interprétations qui irait à l'encontre des objectifs du texte.

Il est donc indispensable que le cadre des vérifications de la QE soit clairement établi.

Dans la mesure où il est envisagé que les EASA FORM 1 soient limités à un certains nombres d'éléments jugé les plus importants pour la sécurité, il serait logique de limiter les actions en profondeur de la QE a ces éléments.

Proposal:
DynAero Ibérica proposes to add a note as follows:
"Audits carried out by the QE will be conducted in accordance with the certification program and, in any event, limited to the following:
• Elements of primary structure which will be then a bond issuance of EASA FORM 1,
• Test flight by a qualified pilot to determine whether the flight handling qualities can get a global safety level meeting in the domain of operation of the aircraft.
• Review of the aircraft documentation compare with the reference airworthiness code.
And hence,
• Elements of secondary structure will not be suitable for a specific audit,
• The determination of cruise performances, the secondary handling qualities without primary importance for safety in connection with the operation of the aircraft will not be suitable for a specific audit. "

Reasons:
Despite the introduction of the concept of prior approval certification program, the extent of actual checks to be made by the QE (or CA) is not explicit. Also, in the same way as the previous item, such vagueness is likely a result of interpretations that would run counter to the objectives of the text.
It is therefore imperative that the context of verification of the QE is clearly established.
Insofar as it is envisaged that the EASA FORM 1 are limited to a certain number of elements deemed most important for safety, it would make sense to limit the actions of the QE to these elements.

response *Partially accepted*

The Agency agrees that ELA certification procedures are needed and will develop them in due course.

comment *222* comment by: *Aero-Club of Switzerland*

The Aero-Club of Switzerland welcomes the idea of Qualified Entities. However, the Organisation would be happier with a subordination of such QE under the Agency.

response *Partially accepted*

The Agency thanks the commentator for their support.
Please see CRD Part I paragraph b(6).

comment *235* comment by: *Flight Design GmbH Matthias Betsch CEO*

negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a).

In addition to this, it must be ensured that a common level is achieved for applicants throughout all the EASA member states. This is mostly the issue from side of the QE´s, when they are approved and supervised by the Authority solely. Involvement of the NAA´s because of varying capabilities in practice shows that this is not the case and this will lead to different safety levels and unfair competition . This problem can be overcome by a Pan European QE. It is not the task of the EASA, or this NPA and comments, to initiate such a Pan European QE, but the effect and usage, when it comes to existence, must be defined.

Proposal 2: Pan-European QE´s by their pan European nature must be appointed by the Agency. In case the applicant selects the Pan- European QE, combined DOA/POA applications will be automatically dealt with by the Agency, and not through CA´s or NAA´s.

response *Partially accepted*

Please see CRD Part I paragraph b(6).

comment *255* comment by: *Gorden WIEGELS*

negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a).

In addition to this, it must be ensured that a common level is achieved for applicants throughout all the EASA member states. This is mostly the issue from side of the QE´s, when they are approved and supervised by the Authority solely. Involvement of the NAA´s because of varying capabilities in practice shows that this is not the case and this will lead to different safety levels and unfair competition . This problem can be overcome by a Pan European QE. It is not the task of the EASA, or this NPA and comments, to initiate such a Pan European QE, but the effect and usage, when it comes to existence, must be defined.

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response *Partially accepted*

Please see CRD Part I paragraph b(6).

comment *288* comment by: *Karg*

Negative - the proposal as presented here is in the suitable direction, but not

reaching far enough.

Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a).

In addition to this, it must be ensured that a common level is achieved for applicants throughout all the EASA member states. This is mostly the issue from side of the QE´s, when they are approved and supervised by the Authority solely. Involvement of the NAA´s because of varying capabilities in practice shows that this is not the case and this will lead to different safety levels and unfair competition. This problem can be overcome by a Pan European QE. It is not the task of the EASA, or this NPA and comments, to initiate such a Pan European QE, but the effect and usage, when it comes to existence, must be defined.

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response *Partially accepted*

Please see CRD Part I paragraph b(6).

comment *309* comment by: *TECNAM*

negative - the proposal as presented here is in the suitable direction, but not reaching far enough.
Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a).
In addition to this, it must be ensured that a common level is achieved for applicants throughout all the EASA member states. This is mostly the issue from side of the QE´s, when they are approved and supervised by the Authority solely. Involvement of the NAA´s because of varying capabilities in practice shows that this is not the case and this will lead to different safety levels and unfair competition . This problem can be overcome by a Pan European QE. It is not the task of the EASA, or this NPA and comments, to initiate such a Pan European QE, but the effect and usage, when it comes to existence, must be defined.
Proposal 2: Pan-European QE´s by their pan European nature must be appointed by the Agency. In case the applicant selects the Pan- European QE, combined DOA/POA applications will be automatically dealt with by the Agency, and not through CA´s or NAA´s.

response *Partially accepted*

Please see CRD Part I paragraph b(6).

comment *343* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

Qualified entities:
It is mentioned that "the concept is that QEs would be derived from existing or new Sporting organisa-tion.".

Comments:

- The EASA accreditation procedure for the QEs must be public to ensure transparency and allow free competition. Clearly defined AMC/GM are considered necessary.
- According to recent accident investigation report1, some sport organizations have not the neces-sary resources and competences. Such conditions lead to a low level of certitude that the require-ments are met. This is confirmed by the review of the technical gaps found in the accident investiga-tions (see appendix I, entered in the file with all FOCA comments attached to the title page).
- In relation with attachment 3, we consider as a fundamental issue that the confirmation of the compliance (equivalent to CVE) as done by the NAA of QE is performed by qualified personnel with clearly defined responsibility. Standardization of the required level of qualification is required; to this scope, also in this case, adequate AMC/GM are required.

response

Noted

Please see CRD Part I paragraph b(6).

comment

361 comment by: *O. Reinhardt / Flightdesign*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a).

In addition to this, it must be ensured that a common level is achieved for applicants throughout all the EASA member states. This is mostly the issue from side of the QE´s, when they are approved and supervised by the Authority solely. Involvement of the NAA´s because of varying capabilities in practice shows that this is not the case and this will lead to different safety levels and unfair competition . This problem can be overcome by a Pan European QE. It is not the task of the EASA, or this NPA and comments, to initiate such a Pan European QE, but the effect and usage, when it comes to existence, must be defined.

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Comment is valid also for the who does what table ELA 1; group "organisational approval"

response

Partially accepted

Please see CRD Part I paragraph b(6).

comment

380 comment by: *Thomas Wendt*

Comment 1
Page 8 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Qualified Entities

negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a).

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Proposal 2: Pan-European QE´s by their pan European nature must be appointed by the Agency. In case the applicant selects the Pan- European QE, combined DOA/POA applications will be automatically dealt with by the Agency, and not through CA´s or NAA´s.

response *Partially accepted*

Please see CRD Part I paragraph b(6).

comment *403* comment by: *TECNAM*

negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a).

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response *Partially accepted*

Please see CRD Part I paragraph b(6).

comment *412* comment by: *CAA CZ*

QE for design issues: There is the proximity concept specified in the document

for the area covered by the NPA. The CAA CZ finds this principle very important. The experience shows that it is necessary for the design organisation (applicant) and the supervisory body to be in close contact. In addition, the communication between specified bodies is very frequent and language problems and national differences could make the communication difficult. However, according to our understanding, the interpretation of the requirements as proposed would allow selecting a QE from the list of approved QEs without any other limitation; there is no requirement for the condition of proximity of QE. Therefore, we strongly recommend to specify that the design organisations and applicants for DOA are supervised by the NAA or QE of the relevant state of the organisation/applicant.

response

Noted

Please see CRD Part I paragraph b(6).

comment

433 comment by: *Light Aircraft Association UK*

LAA is keen to assist EASA in developing these working procedures.

response

Noted

The Agency thanks the commentator for their offer. The Agency will come back to the commentator when the Management Board adopts the policy for using QE.

comment

446 comment by: *Peter VON BURG*

The proposal is in the right direction, but not far enought. The described QE does not have any delegated rights.
QE should also be appointed to audit DOA and POA for ELA1 aircrafts.

response

Not accepted

Please see CRD Part I paragraph b(6).

comment

449 comment by: *www.fascination-pilots.de*

negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a).

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Proposal 2: Pan-European QE´s by their pan European nature must be appointed by the Agency. In case the applicant selects the Pan- European QE,

combined DOA/POA applications will be automatically dealt with by the Agency, and not through CA´s or NAA´s.

response

Not accepted

Please see CRD Part I paragraph b(6).

comment

467 comment by: *Tegelbeckers*

Comment 1
Page 8 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Qualified Entities
negative - the proposal as presented here is in the suitable direction, but not reaching far enough.
Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a).
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response

Not accepted

Please see CRD Part I paragraph b(6).

comment

485 comment by: *light-wings Oliver Liedmann*

negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a).

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combined DOA/POA applications will be automatically dealt with by the Agency, and not through CA´s or NAA´s.

response

Not accepted

Please see CRD Part I paragraph b(6).

comment

501 comment by: *aeroklaus*

Comment 1
Page 8 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Qualified Entities

negative - the proposal as presented here is in the suitable direction, but not reaching far enough.
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response

Not accepted

Please see CRD Part I paragraph b(6).

comment

552 comment by: *UK CAA*

Subject/Topic	**Use of Qualified Entities**
NPA Section / Page	**Comment**
Part A - Section IV, Qualified Entities; Fees and Charges Section V, 4(b), Equity & fairness	Reference is made in the NPA to the new Essential Requirements for Qualified Entities as set out in the new EASA Regulation, and the expectation that existing Sporting Organisations will apply for these approvals. Reference is also made to the current structure of the Fees & Charges Regulation. The use of Qualified Entities proposed in the NPA raises a number of regulatory and practical issues: 1. The possible use of Qualified Entities by the Agency raises a number of wider issues of importance both to the Agency and to NAAs that are currently being addressed at the EASA Management Board level. These issues go beyond the scope of this particular NPA, and need to be fully

analysed before any final decisions are taken with regard to the use of Qualified Entities.

2. It is usual for the existing Sporting Organisations to assist designers and constructors with the design of their aircraft and with the analysis to justify compliance with the relevant standards. It is noted that the Essential Requirements for Qualified Entities expressly forbid the giving of such assistance, and therefore a distinct change of culture/behaviour, and internal separation of activities and responsibilities, may be required by some existing organisations if they wish to become QEs.

3. It should be made clear in the NPA that there will be an accreditation process for the QEs for initial qualification and that subsequently they will be subject to the Agency's standardisation process.

4. Is there any intention to limit the scope of QEs for Type Certification? e.g. To aircraft designed in their own country of business.

5. What will be the implications if there are no applications for QE status in some countries? Will the citizens of those States still be able to have ELA aircraft?

6. Will EASA's policy on QEs limit the number of QEs (e.g. one per Member State), or will any number of applicants with the required capability be granted QE status?

7. Currently, the Fees & Charges Regulation specifies that only the Agency may charge for certification tasks. NAAs are prohibited from charging applicants and so most NAAs have entered into contracts with EASA. The applicant pays EASA and EASA carries out the work or pays NAAs to do so. Assuming that Qualified Entities will not be in a position to provide their services free of charge, the only practical solution would appear to be for the Qualified Entities to be under contract to the Agency - as the NAAs are. This raises the prospect for EASA of having to manage contracts with every Qualified Entity in Europe and of employing staff to do so. The financial basis of the Agency will make it necessary for EASA to recover its management and administration costs from the aircraft designers and manufacturers in addition to the costs of employing the QEs under contract.

7. Potential for the loss of QEs.
EASA can generally assume that the NAAs will remain in place and available to assist the Agency to some extent. This is because most NAAs are statutory bodies that cannot simply cease operating at short notice. In contrast, Qualified Entities may cease trading voluntarily at any time, or may be forced to do so due to financial insolvency, increased liability or other factors. This raises the prospect for EASA of potentially losing the use of a QE at short

notice and having to commit its own staff to continue the work. The relevant NAA may no longer be in a position to help if it has reduced its resources in response to the previous re-allocation of work to the QE.
The possibility of losing Qualified Entities and the consequent effects on the Agency, the NAAs and the GA Community should be included in the impact assessment.

response *Noted*

Please see CRD Part I paragraph b(6).

comment *581* comment by: *klaus M*

Comment 1
Page 8 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Qualified Entities

negative - the proposal as presented here is in the suitable direction, but not reaching far enough.
Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a).
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response *Not accepted*

Please see CRD Part I paragraph b(6).

comment *603* comment by: *Cessna Aircraft Company*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a). In addition to this, it must be ensured that a common level is achieved for applicants throughout all the EASA member states. This problem can be overcome by a Pan European QE. Pan-European QE´s by their pan European nature must be appointed by the Agency. In cases where the applicant selects the Pan- European QE, combined DOA/POA applications will be automatically

	dealt with by the Agency, and not through CA´s or NAA´s.
response	*Not accepted* Please see CRD Part I paragraph b(6).

comment	*615* comment by: *European Sailplane Manufacturers* The proposed inclusion of qualified entities (QE) might be an important improvement for small companies from the perspective of the European sailplane manufacturers. Nevertheless this can only be improving the situation if this is coupled for the applicant to a reduction of administrative burden in his daily work. Details which tasks may be completed by the QE and which tasks could be done by EASA or NAA must not be the applicants problem. Ideally he would have to deal only with one counter-part and everything should be "behind the scenes" for him. Only such a system could make certification of products or organisations more efficient and better viable for small companies. Therefore the QE must be given the possiility to offer this "full service" and ideally this would be regiaonal available, in the language the applicant chooses and financially acceptable. It might be unfair to say but exactly this was meant when the sailplane manufacturers asked about a European counter-piece for the FAA regional offices after EASA introduction. The answer given in 2003 was "No" as EASA is meant to be centralised. If the QE can now bring back such a regional service this has to been applauded. Hopefully the new system can enable the QE to work in a financial context that they can exist, do the important safety assessment but are bot flooded by myriad legal contraints to become "mini authorities" on their own. Also it is very important that the applicant has the right to choose "his" QE for the regarding certification task. This hopefully can spur a kind of competition between the QE where the most efficient working ones will get the tasks. Additionally it has to be added that in the last years there have been cases where EASA was not able to offer the required certification services. The proposed QE could be an option how this certification work could in the future been done fast and efficiently.
response	*Noted* Please see CRD Part I paragraph b(6).

comment	*625* comment by: *Martin Josef Warken* **Comment 1** **Page 8 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Qualified Entities**

	negative - the proposal as presented here is in the suitable direction, but not reaching far enough. Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a). In addition to this, it must be ensured that a common level is achieved for applicants throughout all the EASA member states. This is mostly the issue from side of the QE´s, when they are approved and supervised by the Authority solely. Involvement of the NAA´s because of varying capabilities in practice shows that this is not the case and this will lead to different safety levels and unfair competition . This problem can be overcome by a Pan European QE. It is not the task of the EASA, or this NPA and comments, to initiate such a Pan European QE, but the effect and usage, when it comes to existence, must be defined. Proposal 2: Pan-European QE´s by their pan European nature must be appointed by the Agency. In case the applicant selects the Pan- European QE, combined DOA/POA applications will be automatically dealt with by the Agency, and not through CA´s or NAA´s.
response	*Not accepted* Please see CRD Part I paragraph b(6).

comment	*658* comment by: *EAA* Page 8 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Qualified Entities **Negative** - the proposal as presented here is in the suitable direction, but not reaching far enough. Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a). In addition to this, it must be ensured that a common level is achieved for applicants throughout all the EASA member states. This problem can be overcome by a Paneuropean QE. Paneuropean QE´s by their Paneuropean nature must be appointed by the Agency. In case the applicant selects the Paneuropean QE, combined DOA/POA applications will be automatically dealt with by the Agency, and not through individual CAs or NAAs..
response	*Not accepted* Please see CRD Part I paragraph b(6).

comment	*682* comment by: *Evektor* EVEKTOR proposal: detail definition of Qualified entities "*independance*" would be necessary. Note: we can use explanation similar to CVE
response	*Partially accepted*

Please see CRD Part I paragraph b(6).

comment 702 comment by: *procomposite*

negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a).

In addition to this, it must be ensured that a common level is achieved for applicants throughout all the EASA member states. This is mostly the issue from side of the QE´s, when they are approved and supervised by the Authority solely. Involvement of the NAA´s because of varying capabilities in practice shows that this is not the case and this will lead to different safety levels and unfair competition . This problem can be overcome by a Pan European QE. It is not the task of the EASA, or this NPA and comments, to initiate such a Pan European QE, but the effect and usage, when it comes to existence, must be defined.

Proposal 2: Pan-European QE´s by their pan European nature must be appointed by the Agency. In case the applicant selects the Pan- European QE, combined DOA/POA applications will be automatically dealt with by the Agency, and not through CA´s or NAA´s.

response *Not accepted*

Please see CRD Part I paragraph b(6).

comment 707 comment by: *Europe Air Sports, VP*

EAS opinion is that EASA needs to think, clarify and produce procedures and simple bureaucratic guidelines how the transition from CS aircraft to ELA aircraft and vice versa will be possible. If no transitional arrangement will be offered as an option, the whole effort and process might be not successful, especially for the ELA 2 category.
Proposal
Develop procedures and guidelines for the transition from CS aircraft to ELA aircraft and vice versa

response *Noted*

Please see CRD Part I paragraph b(6).

comment 725 comment by: *Oliver*

negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a).

In addition to this, it must be ensured that a common level is achieved for applicants throughout all the EASA member states. This is mostly the issue

from side of the QE´s, when they are approved and supervised by the Authority solely. Involvement of the NAA´s because of varying capabilities in practice shows that this is not the case and this will lead to different safety levels and unfair competition . This problem can be overcome by a Pan European QE. It is not the task of the EASA, or this NPA and comments, to initiate such a Pan European QE, but the effect and usage, when it comes to existence, must be defined.

Proposal 2: Pan-European QE´s by their pan European nature must be appointed by the Agency. In case the applicant selects the Pan- European QE, combined DOA/POA applications will be automatically dealt with by the Agency, and not through CA´s or NAA´s.

response

Not accepted

Please see CRD Part I paragraph b(6).

comment

751 comment by: *Air Marugan*

Comment 1

negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a).

In addition to this, it must be ensured that a common level is achieved for applicants throughout all the EASA member states. This is mostly the issue from side of the QE´s, when they are approved and supervised by the Authority solely. Involvement of the NAA´s because of varying capabilities in practice shows that this is not the case and this will lead to different safety levels and unfair competition . This problem can be overcome by a Pan European QE. It is not the task of the EASA, or this NPA and comments, to initiate such a Pan European QE, but the effect and usage, when it comes to existence, must be defined.

Proposal 2: Pan-European QE´s by their pan European nature must be appointed by the Agency. In case the applicant selects the Pan- European QE, combined DOA/POA applications will be automatically dealt with by the Agency, and not through CA´s or NAA´s.

response

Not accepted

Please see CRD Part I paragraph b(6).

A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Competent Authorities p. 8-9

comment

68 ❖ comment by: *Michael GREINER*

NOTE:
This comment was made against this section of the NPA. This comment and the response are however only reflected once at page 6 of this CRD in order to

improve readability.

response *Noted*

comment *75* ❖ comment by: *Dyn'aéro*

Commentaire de la Note explicative de la NPA 2008-07, Paragraphe 4, section Qualified Entities et Competent Authorities
Comments on the explanatory note of the NPA 2008-97, Paragraph 4, Qualified Entities and Competent Authorities section

Proposition :
Dyn'Aéro propose que soit ajoutée une note comme suit :

"Les vérifications effectuées par la QE seront réalisées conformément au programme de certification et, quoi qu'il en soit, limitées de la manière suivantes :

- Eléments de structure primaire qui feront l'objet ensuite d'une obligation d'émission de EASA FORM 1,
- Evaluation en vol par un pilote qualifié en vue de déterminer si les qualités de vol permettent d'obtenir un niveau global de sécurité satisfaisant dans le domaine d'utilisation de l'aéronef.
- Revue de la documentation de l'aéronef par rapport au code technique de référence,

Par voie de conséquence :

- Les éléments de structure secondaire ne feront pas l'objet d'une vérification spécifique,
- La détermination des performances de croisière, des qualités de vol secondaires non primordiales pour la sécurité dans le cadre de l'utilisation de l'aéronef ne feront pas l'objet d'une vérification spécifique."

Raisons :

Malgré l'introduction de la notion d'approbation préalable du programme de certification, l'étendue des vérifications réelles devant être faite par la QE (ou CA) n'est pas explicite.

Aussi, et de la même manière que le point précédent, une **telle imprécision est de nature a entraîner des interprétations qui irait à l'encontre des objectifs du texte**.

Il est donc indispensable que le cadre des vérifications de la QE soit clairement établi.

Dans la mesure où il est envisagé que les EASA FORM 1 soient limités à un certains nombres d'éléments jugé les plus importants pour la sécurité, il serait logique de limiter les actions en profondeur de la QE a ces éléments.

Proposal:

Dyn'Aéro proposes to add a note as follows:

"Audits carried out by the QE will be conducted in accordance with the certification program and, in any event, limited to the following:

- *Elements of primary structure which will be then a bond issuance of*

EASA FORM 1,

- *Test flight by a qualified pilot to determine whether the flight handling qualities can get a global safety level meeting in the domain of operation of the aircraft.*
- *Review of the aircraft documentation compare with the reference airworthiness code.*

And hence,

- *Elements of secondary structure will not be suitable for a specific audit,*
- *The determination of cruise performances, the secondary handling qualities without primary importance for safety in connection with the operation of the aircraft will not be suitable for a specific audit. "*

Reasons:

Despite the introduction of the concept of prior approval certification program, the extent of actual checks to be made by the QE (or CA) is not explicit.
Also, in the same way as the previous item, ***such vagueness is likely a result of interpretations that would run counter to the objectives of the text.***

It is therefore imperative that the context of verification of the QE is clearly established.

Insofar as it is envisaged that the EASA FORM 1 are limited to a certain number of elements deemed most important for safety, it would make sense to limit the actions of the QE to these elements.

response

Partially accepted

The level of involvement of the Agency and the qualified entity will be defined by a future rulemaking task.

comment

272 comment by: *Klaus Erger*

Page 9 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Design and Production Organization Approvals
Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.
There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.
This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.
In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Partially accepted

Please refer to CRD 2008-07 Part I paragraph (b) 3 on demonstration of capability for design.

comment 683 comment by: *Evektor*

EVEKTOR position: 3 row- typist's error "*state*"

response *Accepted*

The Agency thanks the commentator for pointing out the mistake.

A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA: Who does what? p. 9

comment 68 ❖ comment by: *Michael GREINER*

NOTE:
This comment was made against this section of the NPA. This comment and the response are however only reflected once at page 6 of this CRD in order to improve readability.

response *Noted*

comment 88 comment by: *René Fournier*

The proposed work organisation reflected in the chart adds clarity on who does what.

In the ELA 1 Chart, I welcome the statement that a specific procedure will be defined to limit the burden on applicants for minor changes to TC. If not imposed by the basic regulation, I however wonder if approval of minor repairs on individual aircraft would not be better placed at the level of the Competent Authorities. For the sake of clarity, the reference to Article 15 of Regulation 1592/2002 should also be updated by reference to Regulation No. 216/2008.

response *Noted*

The charts that had been provided were to illustrate how the process could work. However, the use of QE is not yet possible because the Management Board has not yet adopted the necessary policy. Please refer to CRD 2008-07 Part I paragraph (b) 6.

comment 240 comment by: *Ronald MEYER*

Comment 1
Page 9 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Design and Production Organization Approvals

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined,

that even at this level of deregulation the level of safety achieved is so high, that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As a fact, reducing the hurdles leads to a much more efficient market self control, than could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries, where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II), it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Not accepted

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment

273 comment by: *Klaus Erger*

Page 9 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Design and Production Organisation Approvals
Negative, the proposal as presented here is in the suitable direction, but not reaching far enough.
As is commonly known and transparent through their individual approvals, the existing NAA´s have a sometimes significantly different qualification and capability level, due to whatever reason. As the NPA is formulated, it is up to the NAA of the country, where the company is based, to select, whether they will deal with the combined DOA/POA approval themselves, or whether they delegate their part to the Agency. The reason for this decision is completely left to the NAA. As by widely know experience NAA's have different levels, this will lead to unacceptable different level of safty and unfair competition. Proposal: It must be clear from the start that combined DOA/POA approvals are dealt with always by the Agency. If this is not in line with the basic regulation, a general agreement between Agency and NAA´s must be achieved when issuing these changes, that NAA´s accept combined DOA/POA applications to be dealt through the agency on the basis of basic regulation 20(2)b(ii).

response

Not accepted

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment

311 comment by: *TECNAM*

Negative, the proposal as presented here is in the suitable direction, but not reaching far enough.
As is commonly known and transparent through their individual approvals, the existing NAA´s have a sometimes significantly different qualification and capability level, due to whatever reason. As the NPA is formulated, it is up to

the NAA of the country, where the company is based, to select, whether they will deal with the combined DOA/POA approval themselves, or whether they delegate their part to the Agency. The reason for this decision is completely left to the NAA. As by widely know experience NAA's have different levels, this will lead to unacceptable different level of safty and unfair competition. Proposal: It must be clear from the start that combined DOA/POA approvals are dealt with always by the Agency. If this is not in line with the basic regulation, a general agreement between Agency and NAA´s must be achieved when issuing these changes, that NAA´s accept combined DOA/POA applications to be dealt through the agency on the basis of basic regulation 20(2)b(ii).

response *Partially accepted*

EASA can only issue a combined DOA/POA approval if the Member State has agreed that the POA aspects are issued by EASA.

comment *346* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

Who does what, Initial and Continued Airworthiness ELA 1:
Attachment 2 indicates that CRI A1 is agreed at NAA or QE level. In order to achieve an adequate level of standardization it is recommended to define a process to have the approved CRI/SC/ESF made available to the involved stakeholders.

Who does what, Initial and Continued Airworthiness ELA 2:
Attachment 3 does not indicate the responsible party for Publication of CRD.

response *Noted*

The charts that had been provided were to illustrate how the process could work. However, the use of QE is not possible because the Management Board has not yet adopted the corresponding policy. Please refer to CRD 2008-07 Part I paragraphs (b) 6 on QE.

comment *468* comment by: *Tegelbeckers*

Comment 2
Page 9 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Design and Production Organization Approvals
Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.
There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.
This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.
In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a

reason for less safety and can even improve safety.
Comment 3

Page 9 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Design and Production Organisation Approvals
Negative, the proposal as presented here is in the suitable direction, but not reaching far enough.
As is commonly known and transparent through their individual approvals, the existing NAA´s have a sometimes significantly different qualification and capability level, due to whatever reason. As the NPA is formulated, it is up to the NAA of the country, where the company is based, to select, whether they will deal with the combined DOA/POA approval themselves, or whether they delegate their part to the Agency. The reason for this decision is completely left to the NAA. As by widely know experience NAA's have different levels, this will lead to unacceptable different level of safty and unfair competition.
Proposal: It must be clear from the start that combined DOA/POA approvals are dealt with always by the Agency. If this is not in line with the basic regulation, a general agreement between Agency and NAA´s must be achieved when issuing these changes, that NAA´s accept combined DOA/POA applications to be dealt through the agency on the basis of basic regulation 20(2)b(ii).

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment

482 comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high, that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As a fact, reducing the hurdles leads to a much more efficient market self control, than could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries, where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II), it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment	*502* comment by: *aeroklaus* Comment 2 Page 9 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Design and Production Organization Approvals Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft. There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control. This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing. In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.
response	*Noted* Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment	*780* comment by: *Herbert HERGET* Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high, that it can hold with those as found for Part 23 aircraft. There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As a fact, reducing the hurdles leads to a much more efficient market self control, than could be achieved by Agency control. This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing AS TM or DIN ISO qualifications of companies, without further explicit checking or re-auditing. In all countries, where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II), it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.
response	*Noted* Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration

of capability for design and production.

A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Design and Production Organisation Approvals p. 9

comment *68* ❖ comment by: *Michael GREINER*

NOTE:
This comment was made against this section of the NPA. This comment and the response are however only reflected once at page 6 of this CRD in order to improve readability.

response *Noted*

comment *89* comment by: *René Fournier*

The lifting of the requirement for a quality system in production organisations for the ELA 1 and ELA 2 aircraft categories and its replacement by an organisational review is a welcome simplification, which I fully support. I also approve the combined DOA/POA approvals.

From my own experience, the current system still lacks a framework allowing the production of spare parts at an economically affordable price for aircraft no longer in production. In such case, maintaining a POA proves too complex and expansive for a limited number of aircraft and the validity of letters of agreement is limited to one year. This would of course no longer be needed if the EASA Form 1 requirement were to be totally lifted for ELA 1 aircraft.

response *Noted*

The Agency thanks the commentator for his support.
Please refer to CRD 2008-07 Part I paragraphs (b) 4 on demonstration of capability for production and 7 on Form 1.

comment *105* comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.
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This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.
In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment

106 comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.
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In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment

107 comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.*

Negative, the proposal as presented here is in the suitable direction, but not reaching far enough.
As is commonly known and transparent through their individual approvals, the existing NAA´s have a sometimes significantly different qualification and capability level, due to whatever reason. As the NPA is formulated, it is up to the NAA of the country, where the company is based, to select, whether they will deal with the combined DOA/POA approval themselves, or whether they delegate their part to the Agency. The reason for this decision is completely left to the NAA. As by widely know experience NAA's have different levels, this will lead to unacceptable different level of safty and unfair competition.
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response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment

142 comment by: *Fridrich Jan*

Tato koncepce vyžaduje bližší vysvětlení - zvláště za situace kdy žadatel místo DOA zvolí proces schválení certifikačního programu.
Navrhuji aby pro letadla v procesu ELA1 byla za zjednodušené POA odpovědná příslušná QE, kter se podílí na certifikaci.

response

Noted

The certification programme has been detailed by Opinion 01/2010. We plan to develop AMC to explain the concept of simplified DOA.
Concerning QE and POA, please note that the EASA Management Board has not yet adopted the policy for using QE.

comment

168 comment by: *Alexander Eich*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

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In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment

192 comment by: *Walter Gessky*

Design and Production Approvals
Comment:
The Typical Technical Organisation in the GA ELA1 Group has a very small number of technical employees (e.g. 5 employees) with different engineering and mechanical background. The Organisation as TC Holder covers normally Engineering for small changes and repairs, maintenance, production and distribution of spare parts for this aeroplanes and the development of new airplanes.
Based on this wide range of activities the organisation is working in an economic way at a sufficient level of safety.
This may be an key element in ELA One, only one organisation!
Proposal:
Delete Subpart L.
Create a new Organisational approval which may have a scope of work in

maintenance, production, design and CAMO (ARC privilege) for ELA 1.
One organisation, one approval and one Handbook for all activities in ELA 1.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment *256* comment by: *Gorden WIEGELS*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment *257* comment by: *Gorden WIEGELS*

Negative, the proposal as presented here is in the suitable direction, but not reaching far enough.

As is commonly known and transparent through their individual approvals, the existing NAA´s have a sometimes significantly different qualification and capability level, due to whatever reason. As the NPA is formulated, it is up to the NAA of the country, where the company is based, to select, whether they will deal with the combined DOA/POA approval themselves, or whether they delegate their part to the Agency. The reason for this decision is completely left to the NAA. As by widely know experience NAA's have different levels, this will lead to unacceptable different level of safty and unfair competition.

Proposal: It must be clear from the start that combined DOA/POA approvals are dealt with always by the Agency. If this is not in line with the basic regulation, a general agreement between Agency and NAA´s must be achieved when issuing these changes, that NAA´s accept combined DOA/POA applications to be dealt through the agency on the basis of basic regulation 20(2)b(ii).

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment

289 comment by: *Karg*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights - mostly also sold as LSA in FAA world - in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

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In all countries where deregulated airplanes are already flying (LSA, homebuilt aircrafts, Annex II), it is proven that deregulation in general is not reason for less safety, much more it can even improve safety.

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment

290 comment by: *Karg*

Negative, the proposal as presented here is in the suitable direction, but not reaching far enough.

As is commonly known and transparent through their individual approvals, the existing NAA´s have a sometimes significantly different qualification and capability level, due to whatever reason. As the NPA is formulated, it is up to the NAA of the country, where the company is based, to select, whether they will deal with the combined DOA/POA approval themselves, or whether they delegate their part to the Agency. The reason for this decision is completely left to the NAA. As by widely know experience NAA's have different levels, this will lead to unacceptable different level of safety and unfair competition.
Proposal: It must be clear from the start that combined DOA/POA approvals are dealt with always by the Agency. If this is not in line with the basic regulation, a general agreement between Agency and NAA´s must be achieved when issuing these changes, that NAA´s accept combined DOA/POA applications to be dealt through the agency on the basis of basic regulation 20(2)b(ii).

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment	*310* comment by: *TECNAM* Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft. There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control. This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing. In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.
response	*Noted* Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment	*362* comment by: *O. Reinhardt / Flightdesign* Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft. There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control. This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing. In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety. This comment is also valid for several other locations as linked, and for the Who does what- Table, there section "organisational approval" (not possible to link exactly).
response	*Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment 363 comment by: *O. Reinhardt / Flightdesign*

Negative, the proposal as presented here is in the suitable direction, but not reaching far enough.

As is commonly known and transparent through their individual approvals, the existing NAA´s have a sometimes significantly different qualification and capability level, due to whatever reason. As the NPA is formulated, it is up to the NAA of the country, where the company is based, to select, whether they will deal with the combined DOA/POA approval themselves, or whether they delegate their part to the Agency. The reason for this decision is completely left to the NAA. As by widely know experience NAA's have different levels, this will lead to unacceptable different level of safty and unfair competition.

Proposal: It must be clear from the start that combined DOA/POA approvals are dealt with always by the Agency. If this is not in line with the basic regulation, a general agreement between Agency and NAA´s must be achieved when issuing these changes, that NAA´s accept combined DOA/POA applications to be dealt through the agency on the basis of basic regulation 20(2)b(ii).

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment 381 comment by: *Thomas Wendt*

Comment 2
Page 9 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Design and Production Organization Approvals

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

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This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

Comment 3
Page 9 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Design and Production Organisation Approvals

Negative, the proposal as presented here is in the suitable direction, but not reaching far enough.

As is commonly known and transparent through their individual approvals, the existing NAA´s have a sometimes significantly different qualification and capability level, due to whatever reason. As the NPA is formulated, it is up to the NAA of the country, where the company is based, to select, whether they will deal with the combined DOA/POA approval themselves, or whether they delegate their part to the Agency. The reason for this decision is completely left to the NAA. As by widely know experience NAA's have different levels, this will lead to unacceptable different level of safty and unfair competition.
Proposal: It must be clear from the start that combined DOA/POA approvals are dealt with always by the Agency. If this is not in line with the basic regulation, a general agreement between Agency and NAA´s must be achieved when issuing these changes, that NAA´s accept combined DOA/POA applications to be dealt through the agency on the basis of basic regulation 20(2)b(ii).

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment *400* comment by: *Flight Design GmbH Matthias Betsch CEO*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

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response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment	*401* comment by: *Flight Design GmbH Matthias Betsch CEO* Negative, the proposal as presented here is in the suitable direction, but not reaching far enough. As is commonly known and transparent through their individual approvals, the existing NAA´s have a sometimes significantly different qualification and capability level, due to whatever reason. As the NPA is formulated, it is up to the NAA of the country, where the company is based, to select, whether they will deal with the combined DOA/POA approval themselves, or whether they delegate their part to the Agency. The reason for this decision is completely left to the NAA. As by widely know experience NAA's have different levels, this will lead to unacceptable different level of safty and unfair competition. Proposal: It must be clear from the start that combined DOA/POA approvals are dealt with always by the Agency. If this is not in line with the basic regulation, a general agreement between Agency and NAA´s must be achieved when issuing these changes, that NAA´s accept combined DOA/POA applications to be dealt through the agency on the basis of basic regulation 20(2)b(ii).
response	*Noted* Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment	*405* comment by: *TECNAM* Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft. There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control. This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing. In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety 2° Comment Negative, the proposal as presented here is in the suitable direction, but not reaching far enough. As is commonly known and transparent through their individual approvals, the existing NAA´s have a sometimes significantly different qualification and capability level, due to whatever reason. As the NPA is formulated, it is up to the NAA of the country, where the company is based, to select, whether they will deal with the combined DOA/POA approval themselves, or whether they

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response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment

451 comment by: *www.fascination-pilots.de*

Negative, the proposal as presented here is in the suitable direction, but not reaching far enough.

As is commonly known and transparent through their individual approvals, the existing NAA´s have a sometimes significantly different qualification and capability level, due to whatever reason. As the NPA is formulated, it is up to the NAA of the country, where the company is based, to select, whether they will deal with the combined DOA/POA approval themselves, or whether they delegate their part to the Agency. The reason for this decision is completely left to the NAA. As by widely know experience NAA's have different levels, this will lead to unacceptable different level of safty and unfair competition.
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response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment

486 comment by: *light-wings Oliver Liedmann*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

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qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment *487* comment by: *light-wings Oliver Liedmann*

Negative, the proposal as presented here is in the suitable direction, but not reaching far enough.

As is commonly known and transparent through their individual approvals, the existing NAA´s have a sometimes significantly different qualification and capability level, due to whatever reason. As the NPA is formulated, it is up to the NAA of the country, where the company is based, to select, whether they will deal with the combined DOA/POA approval themselves, or whether they delegate their part to the Agency. The reason for this decision is completely left to the NAA. As by widely know experience NAA's have different levels, this will lead to unacceptable different level of safty and unfair competition.
Proposal: It must be clear from the start that combined DOA/POA approvals are dealt with always by the Agency. If this is not in line with the basic regulation, a general agreement between Agency and NAA´s must be achieved when issuing these changes, that NAA´s accept combined DOA/POA applications to be dealt through the agency on the basis of basic regulation 20(2)b(ii).

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment *503* comment by: *aeroklaus*

Comment 3
Page 9 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Design and Production Organisation Approvals

Negative, the proposal as presented here is in the suitable direction, but not reaching far enough.
As is commonly known and transparent through their individual approvals, the existing NAA´s have a sometimes significantly different qualification and capability level, due to whatever reason. As the NPA is formulated, it is up to the NAA of the country, where the company is based, to select, whether they will deal with the combined DOA/POA approval themselves, or whether they delegate their part to the Agency. The reason for this decision is completely left to the NAA. As by widely know experience NAA's have different levels, this will lead to unacceptable different level of safty and unfair competition.
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	applications to be dealt through the agency on the basis of basic regulation 20(2)b(ii).
response	*Noted* Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment	*553*	comment by: *UK CAA*
	Subject/Topic	**Design & Production approvals**
	NPA Section / Page	**Comment**
	Section IV, Design & Production approvals page 9	It is proposed in the NPA that the requirement for a Quality system for production be removed. However, this is required by ICAO Annex 8 Chapter 2 paragraph 2.2.3 **Suggestion** Retain the requirement for a Quality System.
response	*Partially accepted* Please refer to CRD 2008-07 Part I paragraphs (b) 4 on demonstration of capability for production.	

comment	*554*	comment by: *UK CAA*
	Subject/Topic	**Comments Specific to ELA 1 (including Light Sport)**
	NPA Section / Page	**Comment**
	Section IV, Design & Production approvals page 9	**Conflict with NPA 2008-06** It is proposed in the NPA that for ELA1 there will be no DOA or APDOA. For the many existing light aircraft in Europe that are no longer supported by DOAs, the continued validity of the Type Certificates and Certificates of Airworthiness of these aircraft has been a significant issue for the Agency. This has now been addressed by the Rulemaking Directorate and their conclusions have been published recently as NPA 2008-06; (Restricted Type Certificates and Restricted CofA). NPA 2008-06 makes two key points: - NPA 2008-06 clarifies that any aircraft type that is not supported by a DOA or APDOA (an "orphan aircraft") is not eligible for a normal Type Certificate/Certificate of Airworthiness but instead should have a Restricted TC/Restricted CofA. - The intent of NPA 2008-06 is to avoid an increase in the number of orphan aircraft. **Questions** 1. Why does this NPA 2008-07 propose that ELA 1 aircraft are granted full TC and CofA without a DOA or APDOA, when NPA 2008-06 states that if there is no DOA/APDOA the aircraft are eligible for restricted certificates only?

2. Why does this NPA 2008-07 propose the ELA 1 process of commercial production without DOA/APDOA, which will promote new production of orphans in volume, when one of the stated objectives of NPA 2008-06 is to avoid increasing the number of orphans?

NPA 2008-07 and NPA 2008-06 must be consistent. If NPA 2008-06 (Restricted TC, STC) sets out the correct legal position, then it is suggested that this Opinion must either require a DOA/APDOA for all ELA aircraft, or that ELA aircraft with no DOA support must have Restricted Type Certificates.

response *Not accepted*

Opinion No 03/2009 set the principle that if a TC or RTC holder disappears or stops meeting his/her responsibilities (that include maintaining the design capability condition), then Restricted Certificates of airworthiness based on specific airworthiness conditions could be issued. When APDOA or DOA are required the loss of such leads to R-C of A based on SAS.
However, in this NPA we are saying that the eligibility condition for ELA1 is the approval of the certification programme and not DOA or AP-DOA.
This NPA is actually consistent with the Opinion.
Note: the point made by the commentator that the loss of AP-DOA or DOA leads to RTC is not understood as the eligibility conditions for TC and RTC are identical in Part-21. The difference between the two can be described as follows:
A restricted type certificate may be applied when a type certificate is inappropriate and the aircraft is designed for a special purpose for which the Agency agrees it justifies deviations from the essential requirements of Annex I to the Basic Regulation.

comment *582* comment by: *klaus M*

Comment 2
Page 9 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Design and Production Organization Approvals

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There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.
This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.
In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment

583 comment by: *klaus M*

Comment 3
Page 9 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Design and Production Organisation Approvals

Negative, the proposal as presented here is in the suitable direction, but not reaching far enough.
As is commonly known and transparent through their individual approvals, the existing NAA´s have a sometimes significantly different qualification and capability level, due to whatever reason. As the NPA is formulated, it is up to the NAA of the country, where the company is based, to select, whether they will deal with the combined DOA/POA approval themselves, or whether they delegate their part to the Agency. The reason for this decision is completely left to the NAA. As by widely know experience NAA's have different levels, this will lead to unacceptable different level of safty and unfair competition. Proposal: It must be clear from the start that combined DOA/POA approvals are dealt with always by the Agency. If this is not in line with the basic regulation, a general agreement between Agency and NAA´s must be achieved when issuing these changes, that NAA´s accept combined DOA/POA applications to be dealt through the agency on the basis of basic regulation 20(2)b(ii).

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment

605 comment by: *Cessna Aircraft Company*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Proposal 1: Based on the explicit experience of the three-plus years of LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft. There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. In fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control. In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II, advance ultralights, etc.) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment	*628* comment by: *Martin Josef Warken*

Comment 2
Page 9 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Design and Production Organization Approvals

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Comment 3
Page 9 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Design and Production Organisation Approvals

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Proposal: It must be clear from the start that combined DOA/POA approvals are dealt with always by the Agency. If this is not in line with the basic regulation, a general agreement between Agency and NAA´s must be achieved when issuing these changes, that NAA´s accept combined DOA/POA applications to be dealt through the agency on the basis of basic regulation 20(2)b(ii).

response	*Noted* Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment 654 comment by: *European Sailplane Manufacturers*

The European sailplane manufacturers see the approvals for design and production organisations as one of the main problems which need to be fixed for small aviation.

The very concept of an organisation approval is the idea that the organisation is guaranteeing the quality of the work and the safety of the products and processess.

Nevertheless in very small organisations this is not longer true as experience shows that the single people like the chefs / the designers / the heads of the workforce which become now increasing important.

Furthermore it has shown to be really difficult, time-consuming and frustarting (and last but not least also expensive) to try to certify very small organisations in the same manner as big organisations are been certified.

This is been made even more difficult because the people doing these certifications mostly do know only the big organisations and want to see the same internal procedures and processess and manuals for the very small companies too.
The lack of need for co-ordination between company departments when they are sitting in the same office or are been represented by one single person is simply not understood by the existing authorities making these organisation approvals.

The result are overly complicated organisation manuals which are often not wanted nor used plus unacceptable costs for the manufacturers.

The increased level of regulation is reflected by the simple fact that manufacturers now in the business for more than 50 years have in the mean time lost their accreditation as fully responsible design organisations with full privileges and have now to work under so called alternative procedures (ADOA) without privileges.

The organisations have stayed over the years as they where but the nowadays much more stringent regulation makes approval for the comparable DOA not longer feasible.

This should not be blamed to the companies (as has been done repeatedly by officials) but onto the changed regulation.

Here a real change would mean a major step for better suited regulation but sadly only details in the Part 21 have been changed.

Still a company faces severe hurdles when deciding to move their field of business into the EASA regulated field of aviation.

The sailplane manufacturers had no choice as it was decided from the outset that sailplanes should fall under EASA jurisdication.
Sadly they were not questioned during the MDM.032 process directly what should be improved to make life easier for manufacturers of small aircraft when this NPA 2008-07 was drafted.

The proposed changes may offer some slight improvement but should have

given much more relief to the sector of aviation now covered within the proposed ELA context.

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment

659 comment by: *EAA*

Page 9 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Design and Production Organization Approvals

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Proposal 1: Based on the explicit experience of the three-plus years of LSA operation in the USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft. There is no connection visible that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirement(s) of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control that could be achieved by Agency control. In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II, advance ultralights, etc.), it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment

672 comment by: *Peter VON BURG*

Based on risk consideration, microlight expericence and 3 years LSA operation overall safety will be similar even with deregulation within DOA/POA.

Self declaration has the effect, that the responsibility is clearly at the designer/manufacturer, without any chance to excuse an insufficient design agreed by a certification agency.

For aircrafts with negligible risks (small, slow, small volume of fuel, low no of passengers) DOA / POA should be approved by accepting ASTM or DIN ISO qualifications as well.

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment

684 comment by: *Evektor*

EVEKTOR position:
Combined DOA/POA and DOA AP "*with privileges*" must me detailly explained in AMC/GM if the privileges would be different to current DOA procedures.
For combined DOA/POA would be very important to assure the same level of investigation demands round the EU. Detailed AMC/GM to combinated DOA/POA would be necessary.

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment

703 comment by: *procomposite*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment

726 comment by: *Oliver*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO

qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment *727* comment by: *Oliver*

Negative, the proposal as presented here is in the suitable direction, but not reaching far enough.

As is commonly known and transparent through their individual approvals, the existing NAA´s have a sometimes significantly different qualification and capability level, due to whatever reason. As the NPA is formulated, it is up to the NAA of the country, where the company is based, to select, whether they will deal with the combined DOA/POA approval themselves, or whether they delegate their part to the Agency. The reason for this decision is completely left to the NAA. As by widely know experience NAA's have different levels, this will lead to unacceptable different level of safty and unfair competition.
Proposal: It must be clear from the start that combined DOA/POA approvals are dealt with always by the Agency. If this is not in line with the basic regulation, a general agreement between Agency and NAA´s must be achieved when issuing these changes, that NAA´s accept combined DOA/POA applications to be dealt through the agency on the basis of basic regulation 20(2)b(ii).

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment *752* comment by: *Air Marugan*

Comment 2

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

comment

753 comment by: *Air Marugan*

Comment 3

Negative, the proposal as presented here is in the suitable direction, but not reaching far enough.

As is commonly known and transparent through their individual approvals, the existing NAA´s have a sometimes significantly different qualification and capability level, due to whatever reason. As the NPA is formulated, it is up to the NAA of the country, where the company is based, to select, whether they will deal with the combined DOA/POA approval themselves, or whether they delegate their part to the Agency. The reason for this decision is completely left to the NAA. As by widely know experience NAA's have different levels, this will lead to unacceptable different level of safty and unfair competition.
Proposal: It must be clear from the start that combined DOA/POA approvals are dealt with always by the Agency. If this is not in line with the basic regulation, a general agreement between Agency and NAA´s must be achieved when issuing these changes, that NAA´s accept combined DOA/POA applications to be dealt through the agency on the basis of basic regulation 20(2)b(ii).

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 3 and 4 on demonstration of capability for design and production.

A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Limiting the number of parts that need a Form 1 p. 9-10

comment

68 ❖ comment by: *Michael GREINER*

NOTE:
This comment was made against this section of the NPA. This comment and the response are however only reflected once at page 6 of this CRD in order to improve readability.

response

Noted

comment

90 comment by: *René Fournier*

Since its introduction, the JAA/EASA Form 1 requirement has clearly proved to be extremely cumbersome and time consuming, whilst the value added in terms of actual safety of applying such requirement to ELA 1 aircraft remains to be seen. In my view, this requirement applied to sports and leisure aviation is disproportionate to the safety objective pursued and might even prove

	counterproductive in terms of actual safety of the aircraft concerned. I therefore welcome the relaxation of the EASA form 1 requirement contemplated in this NPA. It is a step in the right direction, although it should go further.
response	*Noted* Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment	*233* comment by: *Filippo De Florio* **21A.307 Release of parts and appliances for installation** o The owner-produced parts you propose are not comparable to the one existing in USA because the FAR 21 303(a) (2) allows this parts also for operators and for every type of aircraft. o The possibility the US owners/operators have to produce their own parts is mainly related to old and 'orphan' aircraft for which it is difficult to find replacement parts. o The FAA Memorandum of August 1993 explains how a owner/operator produced part can become an FAA approved part. The process is a logical but binding process. Because something similar should be imposed by EASA, I cannot see the interest of a ELA's owner for producing its own replacement parts he can easily find. o **My conclusions**. - I can envisage a meagre interest in the introduction of owner-produced parts for ELA's owners. - Indipendent of ELA , an harmonisation of the EASA Part 21 with the FAR 21 in the matter of owner/operator-produced parts could be of general interest.
response	*Noted* Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment	*233* comment by: *Filippo De Florio* **21A.307 Release of parts and appliances for installation** o The owner-produced parts you propose are not comparable to the one existing in USA because the FAR 21 303(a) (2) allows this parts also for operators and for every type of aircraft. o The possibility the US owners/operators have to produce their own parts is mainly related to old and 'orphan' aircraft for which it is difficult to find replacement parts. o The FAA Memorandum of August 1993 explains how a owner/operator produced part can become an FAA approved part. The process is a logical but binding process. Because something similar should be imposed by EASA, I cannot see the interest of a ELA's owner for producing its own replacement parts he can easily find. o **My conclusions**. - I can envisage a meagre interest in the introduction of owner-produced parts for ELA's owners. - Indipendent of ELA , an harmonisation of the EASA Part 21 with the FAR 21 in the matter of owner/operator-produced parts could be of general interest.
response	*Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment *432* comment by: *Light Aircraft Association UK*

This section states that this 'would only be possible for parts which are produced under the responsibility of the owner for installation on his own aircraft'. This implies that the responsibility (=liability) rests with the owner, but what happens to that responsibility when the owner sells his aircraft to a 3rd party? Who would be responsible then?

It also notes that safeguards include the airworthiness review and the compliance with approved design. The owner needs to know what approved data is available for his aircraft and have access to it: this could lead to confusion as to what is considered 'approved data'. With regards the airworthiness review, this might not happen for some time after the replacement parts are manufactured and installed. The NPA does not explicitly state whether or not an inspection of the installation by an appropriately qualified individual to release the aircraft for flight will be required.

Again, it isn't explicit, but when it says for ELA1 that 'all parts' can be treated in this way, does this extend to the owner obtaining engines, propellers and instruments that are nominally the same as previously fitted? E.g. the exchange of the original uncertified engine for a replacement uncertified engine of the same type.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment *562* comment by: *UK CAA*

Subject/Topic	**Limiting the number of parts that require a Form 1**
NPA Section / Page	**Comment**
Page 9, 10	The safeguards proposed in the NPA for allowing parts that are not standard parts, to be installed without Form 1 documentation are: (i). Airworthiness review by the competent authority or CAMO; (ii). The part must comply with the approved design. This raises the following issues: 1. The CAMO / NAA will have to carry out an investigation in order to be able to meet its obligations when presented with an aircraft that has parts fitted that have no traceability to authorised production via a formal release certificate issued under an organisation approval. This will be time consuming and therefore expensive. 2. If the part is to conform to the approved design, the design data must be made available to the person making the part. It is unlikely that a TC Holder will agree to supply data and drawings to owners to enable them to make their own parts, as this will reduce the income that is generated by the sale of factory-built spares.

3. The production and installation of parts without approved release certificates would impair traceability and so increase the difficulty of identifying affected aircraft when airworthiness problems arise in service. The lack of traceability is not in accordance with ICAO Annex 8 Chapter 2 para 2.2.4.

4. There is an assumption under this section that owners will only be producing parts for their own aircraft. The NPA does not take into consideration that the aircraft could be used to carry passengers and that the aircraft could be sold to a third party in the future. Also, there is a statement that the part must comply with an approved design, but no indication of how this is to be achieved/controlled.

5. As stated within "Question 1", the possibility of owners producing their own parts highlights the issue of whether ELA aircraft will be able to be used for commercial purposes or not, as it is assumed that aircraft embodying parts that are not factory built will be restricted to recreational use. If all ELA aircraft are prohibited from flying commercially this is not an issue.

6. In a number of places the NPA seems to propose changing the reference from 'critical parts' to 'life limited parts'. The term 'critical parts' has a specific meaning in relation to helicopters and this does not appear to have been taken into account in the NPA. VLR 602 states:

'(a) A critical part is a part, the failure of which could have a catastrophic effect upon the rotorcraft, and for which critical characteristics have been identified which must be controlled to ensure the required level of integrity.
(b) If the type design includes critical parts, a critical parts list shall be established. Procedures shall be established to define the critical design characteristics, identify processes that affect those characteristics, and identify the design change and process change controls necessary for showing compliance with the quality assurance requirements of Part-21. (See AMC VLR.602)'

Questions
If the operating restrictions are to be different depending on whether the aircraft contains parts that are not manufactured by a POA Holder, how will this be controlled?

Is it intended that the meanings of critical parts and life-limited parts will be changed by this NPA?
What are the repercussions for CS-VLR?

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Limiting the number of parts that need a Form 1 - Question 1 p. 10

comment

28 comment by: *FFVV*

On behalf of FFVV - comments
It is sometime difficult to get this famous Form 1, even when parts or equpements are ordered to sailplanes manufacturers ! In matter of safety the only requirement should be to produce evidence of the origine of the product (deliverde by..) any invoice, statement should be convenient;

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment

42 comment by: *John Tempest*

Answer to Question 1.

Part of the problem with answering this question is that, in spite of the definition contained in 216/2008, it is not clear what is classified as commercial flying. A list of categories/roles indicating what is and what is not commercial flying would be very helpful. This should be incorporated into AMC material for this implimenting rule as referenced by the Basic Regulation.

When answering this question, I am assuming that private aircraft and aircraft used by Member's flying clubs for training and hire by club members (where the membership has control of the operation of the company) are classified as aircraft used for non-commercial purposes. If so, then I believe that it would not be overly restrictive to limit spare parts without a Form 1 to non-commercial aircraft only.

Alternatively, should aircraft used by Member's flying clubs be classified as being used for commercial purposes, then there is still argument for using parts without a Form 1 for these aircraft as follows:

If sufficient confidence exists that the part is to the correct design and production standard, it would appear an unnecessary obstacle to prohibit use of parts without a Form 1 on ELA-1 and ELA-2 aircraft used for commercial purposes. The UK Microlight industry relies on spare parts provided with a Certificate of Conformity, usually although not exclusively from the Manufacturer, and there is no requirement for a Form 1. This has been found to result in an acceptable level of safety, including in the flight training environment where the aircraft are in extensive use. Based on the successful experience developed in the UK microlight aircraft industry, my view is that use of parts without a Form 1 should not be limited to aircraft used for non-commercial purposes. Additional protection is already in place for the larger ELA-2 aircraft, which limits the areas where parts without a Form 1 may be used.

In either case, my view is that spares without Form 1 are OK for private aircraft and aircraft used by member's flying clubs for training and hire by club members.

response | *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment | *68* ❖ comment by: *Michael GREINER*

NOTE:
This comment was made against this section of the NPA. This comment and the response are however only reflected once at page 6 of this CRD in order to improve readability.

response | *Noted*

comment | *71* comment by: *John Tempest*

Certification Specification for Light Sport Aircraft.

I believe that is is very sensible to adopt the ASTM standards into a European CS code.

response | *Noted*

The Agency thanks the commentator for his support.

comment | *72* comment by: *John Tempest*

Standard Changes and Standard Repairs.

I believe that it is sensible to adopt standard alterations and standard repairs promulgated by AC43 publications into a European CS code.

response | *Noted*

The Agency thanks the commentator for his support.

comment | *91* comment by: *René Fournier*

To my opinion, at least with respect to ELA 1 aircraft, the EASA Form 1 requirement should be lifted not only for parts produced under the responsibility of the aircraft owner but, more generally, for all parts mounted on his aircraft under his responsibility whoever produces them, as long as they are in conformity with the approved design.

Such solution would economically make more sense, since this could provide space not only for the production of an individual part for a particular aircraft, but also for the production of tiny series of parts at a better price. This is particularly desirable for old aircraft model that exist in small numbers and which are no longer produced. At the end, such part would be mounted on the aircraft and the aircraft owner would assume responsibility for them.

If not explicitly mentioned in Regulation 1702/2003, this possibility could be opened in the AMC-GM to be developed. In line with the Agency's statement in NPA 2008-06, this would be a concrete measure encouraging the continued support of old TCs by their older.

response | *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment *108* comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.*

Answer to Question:
It is the opinion of this stakeholder, that it is appropriate to limit the possibility to release parts without a Form 1 as described in the NPA to aircraft that are used for non-commercial purposes. However, for all commercial usage it is possible to install parts without explicit Form 1 that come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment *137* comment by: *Fridrich Jan*

Domnívám se, že Form 1 by neměl být vyžadován minimálně pro proces ELA 1. Pro vyšší kategorie zvážit jeho vyžadování jen pro životně důležité díly

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment *152* comment by: *Light Aircraft Association of the Czech Republic*

LAA ČR strongly recommend that for at least ELA 1 the usage of Form 1 is not necessary.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment *169* comment by: *Alexander Eich*

Answer to Question:

It is the opinion of this stakeholder, that it is appropriate to limit the possibility to release parts without a Form 1 as described in the NPA to aircraft that are used for non-commercial purposes. However, for all commercial usage it is possible to install parts without explicit Form 1 that come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment *179* comment by: *Ingmar Hedblom*

	It is suggested that the modified paragraph 21A.307 is not made applicable only to aircraft that are used for non-commercial purpose. Such a limitation would decrease the value of aircraft when an owner want to sell his aircraft and is not justified by airworthiness reasons since relevant parts should still be in conformity with an approved design if released without Form 1.
response	*Noted* Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment	*224* comment by: *Aero-Club of Switzerland* It is the general idea of the Aero-Club of Switzerland to simplify as much as possible all paperwork related with the airworthiness of all aircraft not used for commercial purposes, but the term "commercial" needs a much clearer definition than the one of 216/2008. It would be a great help to all operators of non-complex aircraft not only to have a definition but a complete list all aeronautical activities, the one's which have to be considered as "commercial" as well as the one's which do not. Could this be a proposal of our Organisation to the Agency?
response	*Noted* Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment	*236* comment by: *Flight Design GmbH Matthias Betsch CEO* **Answer to Question:** It is the opinion of this stakeholder, that it is appropriate to limit the possibility to release parts without a Form 1 as described in the NPA to aircraft that are used for non-commercial purposes. However, for all commercial usage it is possible to install parts without explicit Form 1 that come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.
response	*Noted* Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment	*258* comment by: *Gorden WIEGELS* Answer to Question: It is the opinion of this stakeholder, that it is appropriate to limit the possibility to release parts without a Form 1 as described in the NPA to aircraft that are used for non-commercial purposes. However, for all commercial usage it is possible to install parts without explicit Form 1 that come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment

274 comment by: *Klaus Erger*

Comment 4
Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Limiting the number of parts that need a Form 1 - Question 1
Answer to Question:
It is the opinion of this stakeholder, that it is appropriate to limit the possibility to release parts without a Form 1 as described in the NPA to aircraft that are used for non-commercial purposes. However, for all commercial usage it is possible to install parts without explicit Form 1 that come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment

312 comment by: *TECNAM*

Answer to Question:

It is the opinion of this stakeholder, that it is appropriate to limit the possibility to release parts without a Form 1 as described in the NPA to aircraft that are used for non-commercial purposes. However, for all commercial usage it is possible to install parts without explicit Form 1 that come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment

354 comment by: *British Gliding Association*

Question 1 regarding Forms 1 and creation of parts and repair schemes.

In managing this class of aircraft over 40 years the BGA has demonstrated a safe approach to minor fitments and fittings which require no bureaucracy or official paperwork analogous to the EASA Form 1.

We recommend this approach to the community. Under this scheme the owner holds the right and consequent responsibility for installing locally approved items and fitments, other than those which logically and correctly should be supplied by the manufacturer (or his suppliers). These of course includes all

items of primary and secondary structure and control systems, but would allow installations of role equipment, cockpit comforts etc. Repair schemes may also be raised locally and approved by peer review if a TC holder is not available, eg for SAS aircraft.

These practices are underpinned by peer review from experienced individuals within the sport association (which in the new model would logically would become some kind of Qualified Entity or Assessment Body, see other BGA comment), but responsibility remains with the owner. We believe that the current NPA amendments on 'Standard Parts' falls well short of our approach, and that NPA continues to apply restrictions to personal freedoms and the ability to operate sport aircraft in a developed manner and in accordance with owners personal preferences.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment *364* comment by: *O. Reinhardt / Flightdesign*

Answer to Question:

It is the opinion of this stakeholder, that it is appropriate to limit the possibility to release parts without a Form 1 as described in the NPA to aircraft that are used for non-commercial purposes. However, for all commercial usage it is possible to install parts without explicit Form 1 that come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment *365* comment by: *SAMA Swiss Aircraft Maintenance Association*

(parts not requiring Form 1, Question 1):
SAMA agrees that certain parts for non complex aircraft can be released to service without a Form 1, in order to alleviate procedural paperwork without compromising safety. This posibility shall be limited to non critical parts (e.g. not life limited, primary structure or flight controls, unless redundant).
Considering the possibility of a change of ownership or different use of a non complex aircraft, we believe that it would not be practicable to limit the use of such parts strictly to non commercial operations.
Please note that - again - we refer to 'non complex aircraft', not ELA.

response *Noted*

Please refer to CRD 2008-07 Part I paragraph (b) 7 on EASA Form 1.

comment *382* comment by: *Thomas Wendt*

Comment 4
Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light

Aircraft Process - Limiting the number of parts that need a Form 1 - Question 1

Answer to Question:

It is the opinion of this stakeholder, that it is appropriate to limit the possibility to release parts without a Form 1 as described in the NPA to aircraft that are used for non-commercial purposes. However, for all commercial usage it is possible to install parts without explicit Form 1 that come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment *406* comment by: *TECNAM*

Answer to Question:

It is the opinion of this stakeholder, that it is appropriate to limit the possibility to release parts without a Form 1 as described in the NPA to aircraft that are used for non-commercial purposes. However, for all commercial usage it is possible to install parts without explicit Form 1 that come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment *413* comment by: *JIHLAVAN airplanes s.r.o.*

JIHLAVAN airplanes, s.r.o. strongly recommends that for at least ELA 1 the usage of Form 1 is not necessary.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment *448* comment by: *Rybar Jirka*

Domnívám se, že Form 1 nemůže být vyžadován minimálně pro proces ELA1 (tedy letadla do MTOM méně než 1tunu) Pro vyšší kategorie je nutné stanovit jeho vyžadování jen pro životně důležité díly.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment *452* comment by: *www.fascination-pilots.de*

Answer to Question:

It is the opinion of this stakeholder, that it is appropriate to limit the possibility to release parts without a Form 1 as described in the NPA to aircraft that are used for non-commercial purposes. However, for all commercial usage it is possible to install parts without explicit Form 1 that come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment

469 comment by: *Tegelbeckers*

response

Noted

There is no text in the database.

comment

488 comment by: *light-wings Oliver Liedmann*

Answer to Question:

It is the opinion of this stakeholder, that it is appropriate to limit the possibility to release parts without a Form 1 as described in the NPA to aircraft that are used for non-commercial purposes. However, for all commercial usage it is possible to install parts without explicit Form 1 that come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response

Noted

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment

504 comment by: *aeroklaus*

Comment 4
Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Limiting the number of parts that need a Form 1 - Question 1

Answer to Question:
It is the opinion of this stakeholder, that it is appropriate to limit the possibility to release parts without a Form 1 as described in the NPA to aircraft that are used for non-commercial purposes. However, for all commercial usage it is possible to install parts without explicit Form 1 that come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that

this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment *584* comment by: *klaus M*

Comment 4
Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Limiting the number of parts that need a Form 1 - Question 1

Answer to Question:
It is the opinion of this stakeholder, that it is appropriate to limit the possibility to release parts without a Form 1 as described in the NPA to aircraft that are used for non-commercial purposes. However, for all commercial usage it is possible to install parts without explicit Form 1 that come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment *610* comment by: *Peter VON BURG*

We think it is appropriate to limite the requirement for a Form 1 as described in the NPA.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment *621* comment by: *European Sailplane Manufacturers*

The European sailplane manufacturers have to give several answers as the question and the proposed sollution is not 100% clear to interprete.

1. The sailplane manufacturers already have shown EASA that in the gliding sector the operation of aircraft with equipment having neither a Form 1 or being part of the TC is general practise which has not posed a safety problem.
   EASA has accepted this view and created EASA Decisions 2006/13 and /14 which defines certain types of equipment as "sailplane standard parts" which do not require a Form 1.
   Neverthelessthis approach still leaves certification of the according installation open and as today such an approval would cost 250 Euro (a minor change) the majority of owners / operators still do not have a legal and viable way to operate this useful equipment.
2. Complicating this issue some NAA have stated that the EASA decisions stated above have no real legal character as they only change wordingin the Part 21 AMC material but not in the Part 21 main text.

3. Therefore a sollution is still needed which
   a - is within the main text of Part 21
   b - legalises such equipment without a Form 1
   c - legalises also the installation
4. Nevertheless such parts cannot really to be said to have been produced under the responsibility of the owner. Mostly these are parts which are simply bought and installed.
5. Experience from decades of operation of such equipment have shown that the controls by the certifying staff done during the airworthiness reviews was sufficient to prevent grossly unsafe types of equipment and installation. Examples of "not-really-good" installations are known but they have not resulted into real safety problems.
6. A look into the comparatevely un-regulated world of micro-lights also prooves the view that the owner should heve more freedom there.
7. Nevertheless the proposed change could also be interpreted in a way that the owner will then be allowed to produce complete aircraft parts as long he personally uses it later on.
   Whereas the principle idea that he can only harm himself might be not wrong some caution has to be taken here:
   Even if someone would have all the internal documents and drawings of a major part (wing or fuselage) it might be not easily possible to produce this in the same quality and strength as the original manufacturer.
   In this context the proposal seems not to be acceptable.
8. The detail if such parts should be limited to non-commercial use is also not easy to consider.
   First the definition of commerciat activities given in the Basic Regulation is not really helpfull as several typical activities in the air sport communities would still fall under this definition which might not the aim of the limitation.
   Second it would be difficult to access for a later owner of such an aircraft if he has now the limitation to non-commercial activities or not.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment *629* comment by: *Martin Josef Warken*

Comment 4
Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Limiting the number of parts that need a Form 1 - Question 1
Answer to Question:

It is the opinion of this stakeholder, that it is appropriate to limit the possibility to release parts without a Form 1 as described in the NPA to aircraft that are used for non-commercial purposes. However, for all commercial usage it is possible to install parts without explicit Form 1 that come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment 681 comment by: *Deutscher Aero Club e.V. (DAeC)*

DAeC supports the possibility for owners to release parts without Form 1 for their own aircraft. Part M.A.201 (i) obliges owners to be contracted to a CAMO and Subpart F organisation already. Therefore the limitation for the non-commercial purposes is obsolete.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment 685 comment by: *Evektor*

EVEKTOR position: we fully agree with the possibility to release parts without a Form 1 for non-commertial purposes.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment 689 comment by: *DSvU*

Specific:
The Agency has asked a question 1, regarding the stakeholders views on the appropriateness of limiting the possibility to release parts without a Form 1 to aircraft that are used for non-commercial purposes.

Answer:
It is our opinion, that releasing parts without a Form 1 should be limited to non-commercial purposes.

Justification:
The basic philosophy behind the ELA-concept is to create a lighter regulatory regime for sports aviation and it is essential to maintain a separate view on the regulatory regime for the two groups of aviation.
Consequently a future possibility of releasing parts in commercial aviation without a Form 1 can not be justified by having this possibility for non-commercial aviation but must be evaluated by a separate safety study (cost/benefit).

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment 705 comment by: *procomposite*

Answer to Question:

It is the opinion of this stakeholder, that it is appropriate to limit the possibility to release parts without a Form 1 as described in the NPA to aircraft that are used for non-commercial purposes. However, for all commercial usage it is possible to install parts without explicit Form 1 that come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft

manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment *709* comment by: *Europe Air Sports, VP*

We strongly recommend that for at least ELA 1 the usage of Form 1 is not necessary.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment *728* comment by: *Oliver*

Answer to Question:

It is the opinion of this stakeholder, that it is appropriate to limit the possibility to release parts without a Form 1 as described in the NPA to aircraft that are used for non-commercial purposes. However, for all commercial usage it is possible to install parts without explicit Form 1 that come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

comment *754* comment by: *Air Marugan*

Comment 4

Answer to Question:

It is the opinion of this stakeholder, that it is appropriate to limit the possibility to release parts without a Form 1 as described in the NPA to aircraft that are used for non-commercial purposes. However, for all commercial usage it is possible to install parts without explicit Form 1 that come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation

response *Noted*

Please refer to CRD 2008-07 Part I paragraphs (b) 7 on EASA Form 1.

A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Creation of a Certification Specification for Light Sport Aeroplanes p. 10

comment *110* comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.*

The slight differences have a noticeable effect to the product:
A limitation do Day VFR only is considered not acceptable, as the standard explicitly provides requirements for night VFR (already now) and IFR (upcoming right now) operation.
We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.
It is in the very nature of the ASTM standard, to evolve, in order to further raise the level of safety and keep the requirements always up to date. For FAA registered LSA it is a must, after a certain transition time, for the applicant to upgrade his design in line with newer standards. In the implementation proposed by EASA, an applicant may choose to stay on the lower level, selling an aircraft of the same category at a lower level of qualification, whilst others are forced to update, as they already have to do when they sell to FAA world.

response *Accepted*

IMC and night VFR may also be accepted when complying with an appropriate appendix to CS-LSA. This appendix will include in particular the necessary additional specifications for power plant and systems.

comment *170* comment by: *Alexander Eich*

Comment 2 valid also here

response *Noted*

Please see reply to comment No 166.

comment *209* comment by: *Walter Gessky*

CS-LSA
Comment:
The definition of LSA is different to the US definition for LSA.
'LSA aircraft' means any aeroplane with (LSA meaning "Light Sport Aeroplane"):
- a Maximum Take-off Mass (MTOM) of not more than 600 kg, and
- a maximum stalling speed in the landing configuration (VS0) of not more than 45 knots Calibrated Airspeed (CAS) at the aircraft's maximum certificated takeoff mass and most critical centre of gravity, and
- a maximum seating capacity of no more than two persons, including the pilot, and
- a single, non-turbine engine fitted with a propeller, and
- a non-pressurised cabin.

US LSA means an aircraft, other than a helicopter or powered lift that,

since its original certification, has continued to meet the following:

- **Max takeoff weight (MTOW) of not more than:**
- **1320 pounds (600 kilograms) for all land aircraft**
- **1430 pounds (650 kilograms) for aircraft intended for operation on water**
- **Max speed (Vh) -120 knots (138 mph); Glider Vne -120 knots**
- **- Max stall speed - not more than 45 knots (52 mph)**
- **- 2 seats max; non-pressurized; single reciprocating engine**
- **- Fixed or ground adjustable propeller; auto-feather for glider**

Fixed landing gear, except for an aircraft intended for operation on water or a glider (retractable gear allowed)

Therefore the Import/Export to and from the US Market is complicated without technical changes. This is a great disadvantage for the industry.
In addition the referenced airworthiness code ASTM IS F2245 is tailored to the US definition for LSA. No requirement for certain designs might be included like variable pitch propeller, landing gear.
Gliders are missing.
Proposal:
Adopt the US LSA without any differences or initiate an harmonization process with the FAA.

response

Noted

The systems are different: the ELA is top-down; the US-LSA is outside the normal FAA system. Two main questions need to be answered:
Is a European LSA having a TC/ RTC eligible for S-LSA in the US?
US-LSA import: if we apply the ELA process (TC or RTC), the issue of the State of Design needs to be addressed.
The following options were evaluated:

- EU manufacturers could produce aircraft for the US market and not supply any documentary evidence of conformity with the EASA TC (even though the aircraft would be identical to those flying in the EU with C of A). And the FAA could be flexible in its interpretation of FAR 21.190. The obvious risk here is that US manufacturers of LSA might challenge the FAA's acceptance of the EU aircraft, possibly in the US law courts, and the FAA would not have a tenable defence. Such a challenge would be very likely if US manufacturers found that they were denied entry to the EU market, or that compliance with EASA's ELA standards resulted in additional costs to them.
- EU manufacturers could open subsidiary completion centres in the US, and US manufacturers equivalent facilities within the EU, to change the "nationality" of the products. For example, the EU country where Cessna opened its subsidiary would become State of Design for the "European Skycatcher" and EASA would be the Primary Certifying Authority for the aircraft. It would not be a good solution for EASA for the TC Holder to be a token local office for a non-EU aircraft company. This solution would also add cost for all of the LSA/ELA companies.
- EASA could re-think the proposed rule change for CS-LSA aeroplanes so that such aircraft receive a non-ICAO approval and certificates that the FAA agrees are not equivalent to those listed in FAR 21.190(b)(2) (Possibly a non-ICAO Restricted Type Certificate and Restricted C of A). This would mean that ELA1 aircraft accepted as being compliant with ASTM F2245 would receive non-ICAO certificates.
- FAA could accept to modify the LSA rule so that foreign TC aircraft could be accepted.

The Agency has concluded that on balance it was preferable to explore the

non-ICAO RTC for CS-LSA aeroplanes. Bilateral agreements will need to be updated to include these principles.

comment

227 comment by: *Aero-Club of Switzerland*

It is acceptable to the Aero-Club of Switzerland to see LSA covered by the ELA process. A participation in the ASTM International Standard is supported

response

Noted

The Agency thanks the commentator for their support.

comment

232 comment by: *Filippo De Florio*

Light Sport Aeroplanes.

A number of stakeolders proposed the creation of a category comparable to the US Light Sport Aircraft rule.

The LSA has been very successful in USA, giving a lot of people the possibility to realise safely and at low cost the dream of flight.

The creation in Europe of a LSA cat. for which the main « alleviation » is the adoption of an ASTM standard for a type certification, is a palliative without simplifications similar to the US LSA rule.

It is true that the Art. 5.2(a) of the Regulation 216/2008 requires a TC for the products, but the point 4 of the same article presents a series of derogations : the LSA cat. could have been one of them…..

If we consider that most of the types of LSA in USA are produced by European manufacturers, we are loosing what could have been a real simplification for the ELAs and
a great benefit for what is considered an important sector of aviation.

response

Partially accepted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment

232 comment by: *Filippo De Florio*

Light Sport Aeroplanes.

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It is true that the Art. 5.2(a) of the Regulation 216/2008 requires a TC for the products, but the point 4 of the same article presents a series of derogations : the LSA cat. could have been one of them…..

If we consider that most of the types of LSA in USA are produced by European manufacturers, we are loosing what could have been a real simplification for the ELAs and
a great benefit for what is considered an important sector of aviation.

response

Partially accepted

Please see CRD Part I paragraph 1 and 2 on the two-phase approach.

comment	*241* comment by: *Ronald MEYER* **Comment 2** **Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Creation of a Certification Specification for Light Sport Aeroplanes** Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high, that it can hold with those as found for Part 23 aircraft. There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As a fact, reducing the hurdles leads to a much more efficient market self control, than could be achieved by Agency control. This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing. In all countries, where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II), it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.
response	*Noted* Refer to CRD Part I paragraph (b) 3, 4 and 5 relative to demonstration of capability for design, production and combined DOA/POA.

comment	*259* comment by: *Gorden WIEGELS* Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft. There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control. This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing. In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Noted

Refer to CRD Part I paragraph (b) 3, 4 and 5 relative to demonstration of capability for design, production and combined DOA/POA.

comment

260 comment by: *Gorden WIEGELS*

The slight differences have a noticeable effect to the product:

- A limitation do Day VFR only is considered not acceptable, as the standard explicitly provides requirements for night VFR (already now) and IFR (upcoming right now) operation.
  We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.
- It is in the very nature of the ASTM standard, to evolve, in order to further raise the level of safety and keep the requirements always up to date. For FAA registered LSA it is a must, after a certain transition time, for the applicant to upgrade his design in line with newer standards. In the implementation proposed by EASA, an applicant may choose to stay on the lower level, selling an aircraft of the same category at a lower level of qualification, whilst others are forced to update, as they already have to do when they sell to FAA world.

response

Not accepted

Relative to limitations:
IMC and night VFR may also be accepted when complying with an appropriate appendix to CS-LSA. This appendix will include in particular the necessary additional specifications for power plant and systems.

Relative to ASTM standards:
The described system has merit; however, the system provided by TC provides a legal certainty to the applicant. This does not prevent the applicant from upgrading the aircraft in accordance with Part-21 and the fees and charges regulation. The flexibility provided by the special conditions already incorporated into Part-21 is comparable to the flexibility of ASTM process to upgrade the standards.

comment

275 comment by: *Klaus Erger*

Comment 5
Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Creation of a Certification Specification for Light Sport Aeroplanes

Comment 2 valid also here.
Comment 6
Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Creation of a Certification Specification for Light Sport Aeroplanes
The slight differences have a noticeable effect to the product:

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response	*Partially accepted* Relative to limitations: IMC and night VFR may also be accepted when complying with an appropriate appendix to CS-LSA. This appendix will include in particular the necessary additional specifications for power plant and systems. Relative to ASTM standards: The described system has merit; however, the system provided by TC provides a legal certainty to the applicant. This does not prevent the applicant from upgrading the aircraft in accordance with Part-21 and the fees and charges regulation. The flexibility provided by the special conditions already incorporated into Part-21 is comparable to the flexibility of ASTM process to upgrade the standards.

comment	*291* comment by: *Karg* Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights - mostly also sold as LSA in FAA world - in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft. There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control. This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing. In all countries where deregulated airplanes are already flying (LSA, homebuilt aircrafts, Annex II), it is proven that deregulation in general is not reason for less safety, much more it can even improve safety.
response	*Noted*

Refer to CRD Part I paragraph (b) 3, 4 and 5 relative to demonstration of capability for design, production and combined DOA/POA.

comment *292* comment by: *Karg*

The slight differences have a noticeable effect to the product:

- - A limitation do Day VFR only is considered not acceptable, as the standard explicitly provides requirements for night VFR (already now) and IFR (upcoming right now) operation.
  We are talking here of initial airworthiness. So opening this up does not mean that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in these conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.
- - It is in the very nature of the ASTM standard, to evolve, in order to further raise the level of safety and keep the requirements always up to date. For FAA registered LSA it is a must, after a certain transition time, for the applicant to upgrade his design in line with newer standards. In the implementation proposed by EASA, an applicant may choose to stay on the lower level, selling an aircraft of the same category at a lower level of qualification, whilst others are forced to update, as they already have to do when they sell to FAA world.

response *Not accepted*

Relative to limitations:
IMC and night VFR may also be accepted when complying with an appropriate appendix to CS-LSA. This appendix will include in particular the necessary additional specifications for power plant and systems.

Relative to ASTM standards:
The described system has merit; however, the system provided by TC provides a legal certainty to the applicant. This does not prevent the applicant from upgrading the aircraft in accordance with Part-21 and the fees and charges regulation. The flexibility provided by the special conditions already incorporated into Part-21 is comparable to the flexibility of ASTM process to upgrade the standards.

comment *313* comment by: *TECNAM*

Comment 2 valid also here.

response *Noted*

Please see reply to comment No 308.

comment *314* comment by: *TECNAM*

The slight differences have a noticeable effect to the product:

- A limitation do Day VFR only is considered not acceptable, as the standard explicitly provides requirements for night VFR (already now) and IFR (upcoming right now) operation.
  We are talking here of initial airworthiness. So opening this up does not

mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.

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response

Not accepted

Relative to limitations:
IMC and night VFR may also be accepted when complying with an appropriate appendix to CS-LSA. This appendix will include in particular the necessary additional specifications for power plant and systems.

Relative to ASTM standards:
The described system has merit; however, the system provided by TC provides a legal certainty to the applicant. This does not prevent the applicant from upgrading the aircraft in accordance with Part-21 and the fees and charges regulation. The flexibility provided by the special conditions already incorporated into Part-21 is comparable to the flexibility of ASTM process to upgrade the standards.

comment

344 comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

Creation of a certification specification for Light Sport Aeroplane:
For aircraft up to 600kg, it is proposed to create a CS-LSA code by reference to the ASTM standard that is used in the FAA light sport aircraft rule.

Comments:

- The harmonization between FAA and EASA is welcomed. However, EASA was not involved in the definition of the ASTM standard used for light sport aircraft and has no control on this regulatory work.
- EASA shall ensure that the essential requirements as defined in annex I of the regulation (EC) N° 216/2008 are specified without gaps in the ASTM standard before they can be adopted.
- The essential requirement 1.a.4 concerning the effect of cyclic loading (fatigue) is not addressed in ASTM F2245-042 for LSA powered fixed wing light sport aircraft.

Aircraft designed without margins according to ASTM F2245-04 have a level of stress which is 33% above the maximum level of stress which would be allowed for an aircraft designed without margin according to CS-VLA. This would lead to a reduction of the life by a factor of more than 8 for airplane build with aluminium alloy3. As a consequence it is likely that fatigue failure will occur during the an-ticipated life for aircraft having no margins but being fully compliant to ASTM F 2245-04.
It is therefore considered as not acceptable from the legal and technically point of view to adopt the ASMT standard in its current definition without the addition of a certification specification for the essen-tial requirement 1.a.4.

This essential requirement is adequately specified in CS-VLA 572 and associated guidance material and can be fulfilled during the design of an aircraft without additional cost.

- The proposed content of the CS-LSA is not adequate as it defines an applicability which is out-side the scope of the proposed applicable airworthiness code (see FAR 1.1 listed in appendix II, entered in the file with all FOCA comments attached to the title page). In particular, the EASA proposed rules allows for:

- higher stall speeds in clean configuration (LSA defines stalls speed in clean configuration),
- higher maximum level flight speed at maximum continuous power (no limit for ELA, limited to 120kts for LSA),
- variable pitch propeller and retractable landing gear.

As a consequence, the ASTM F2254 does not cover those aspects.

- The process to update CS-LSA needs to be addressed: the meaning of "close to dynamic refer-ence" contained in NPA Attachment 2 has to be clarified and its effectiveness evaluated.

1 See German BFU accident report 3X041-0/05 dated April 2007 page 20.

2 Current accepted FAA standard is F2245-06.

3 This was shown on the basis of an analysis using Miner rules, the utilisation spectrum of AC23-13A and the material data from FAA AR-MMPDS-01 for 2024 aluminium alloy. The details of this analysis can be provided to EASA on request.

response

Accepted

For harmonisation with FAA please see CRD Part I paragraph 10.
For relations with ASTM please see CRD Part I paragraph 8.
For the fatigue issue, please see CRD Part I paragraph 8.

comment

362 ❖ comment by: *O. Reinhardt / Flightdesign*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

This comment is also valid for several other locations as linked, and for the Who does what- Table, there section "organisational approval" (not possible to link exactly)

response

Noted

Refer to CRD Part I paragraph (b) 3, 4 and 5 relative to demonstration of capability for design, production and combined DOA/POA.

comment *366* comment by: *O. Reinhardt / Flightdesign*

The slight differences have a noticeable effect to the product:

- A limitation do Day VFR only is considered not acceptable, as the standard explicitly provides requirements for night VFR (already now) and IFR (upcoming right now) operation.
  We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.

- It is in the very nature of the ASTM standard, to evolve, in order to further raise the level of safety and keep the requirements always up to date. For FAA registered LSA it is a must, after a certain transition time, for the applicant to upgrade his design in line with newer standards. In the implementation proposed by EASA, an applicant may choose to stay on the lower level, selling an aircraft of the same category at a lower level of qualification, whilst others are forced to update, as they already have to do when they sell to FAA world.

response *Not accepted*

Relative to limitations:
IMC and night VFR may also be accepted when complying with an appropriate appendix to CS-LSA. This appendix will include in particular the necessary additional specifications for power plant and systems.

Relative to ASTM standards:
The described system has merit; however, the system provided by TC provides a legal certainty to the applicant. This does not prevent the applicant from upgrading the aircraft in accordance with Part-21 and the fees and charges regulation. The flexibility provided by the special conditions already incorporated into Part-21 is comparable to the flexibility of ASTM process to upgrade the standards.

comment *383* comment by: *Thomas Wendt*

Comment 5
Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Creation of a Certification Specification for Light Sport Aeroplanes

Comment 2 valid also here.

Comment 6
Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light

Aircraft Process - Creation of a Certification Specification for Light Sport Aeroplanes

The slight differences have a noticeable effect to the product:

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response

Not accepted

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comment

400 ❖ comment by: *Flight Design GmbH Matthias Betsch CEO*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with

the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Noted*

Refer to CRD Part I paragraph (b) 3, 4 and 5 relative to demonstration of capability for design, production and combined DOA/POA.

comment *404* comment by: *Flight Design GmbH Matthias Betsch CEO*

The slight differences have a noticeable effect to the product:

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response *Not accepted*

Relative to limitations:
IMC and night VFR may also be accepted when complying with an appropriate appendix to CS-LSA. This appendix will include in particular the necessary additional specifications for power plant and systems.

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The described system has merit; however, the system provided by TC provides a legal certainty to the applicant. This does not prevent the applicant from upgrading the aircraft in accordance with Part-21 and the fees and charges regulation. The flexibility provided by the special conditions already incorporated into Part-21 is comparable to the flexibility of ASTM process to upgrade the standards.

comment *407* comment by: *TECNAM*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Noted

Refer to CRD Part I paragraph (b) 3, 4 and 5 relative to demonstration of capability for design, production and combined DOA/POA.

comment

408 comment by: *TECNAM*

The slight differences have a noticeable effect to the product:

- A limitation do Day VFR only is considered not acceptable, as the standard explicitly provides requirements for night VFR (already now) and IFR (upcoming right now) operation.
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- It is in the very nature of the ASTM standard, to evolve, in order to further raise the level of safety and keep the requirements always up to date. For FAA registered LSA it is a must, after a certain transition time, for the applicant to upgrade his design in line with newer standards. In the implementation proposed by EASA, an applicant may choose to stay on the lower level, selling an aircraft of the same category at a lower level of qualification, whilst others are forced to update, as they already have to do when they sell to FAA world.

response

Not accepted

Relative to limitations:
IMC and night VFR may also be accepted when complying with an appropriate appendix to CS-LSA. This appendix will include in particular the necessary additional specifications for power plant and systems.
Relative to ASTM standards:
The described system has merit; however, the system provided by TC provides a legal certainty to the applicant. This does not prevent the applicant from upgrading the aircraft in accordance with Part-21 and the fees and charges regulation. The flexibility provided by the special conditions already incorporated into Part-21 is comparable to the flexibility of ASTM process to upgrade the standards.

comment	*421* comment by: *SAMA Swiss Aircraft Maintenance Association* We support the creation of a LSA-type of category with 'self-certification', e.g. openly based on product liability with the least possible involvment of state responsibilities. If EASA's choice is not to use the same definitions as the FAA for that category, it should be considered to extend the weight and seat capacity limitations in order to allow a further development of the category which we see as a technology driver, in particular in respect to environmental characteristics. LSA could eventually evolve and replace VLA requirements.
response	*Not accepted* We do not propose to adopt at this stage the LSA concept as described here. This might be an outcome of the task BR-010 (Please see CRD Part I paragraph 2). We have not proposed to change MTOM or number of seats in the European LSA compared to the US LSA: we have proposed to change other elements of the definitions (e.g. no speed limit) and added specific requirements to cover these extensions (please refer to CRD Part I paragraph 8).

comment	*434* comment by: *Light Aircraft Association UK* The creation of a system that uses the fundamental element of the US system would seem like a sensible move. Problems may arise in that the ASTM F2245 standard is a developing and changing document. Although the FAA (and, in the future, EASA) is involved in the development of the standard, there doesn't appear to be any guarantee that it will develop in a way acceptable to EASA. The proposals do include provision for augmenting the ASTM with advisory material and/or additional requirements in the CS-LSA covering document. It is assumed (but not stated) that the usual grand-fathering principle would be maintained: the aircraft would continue to be assessed against the chosen airworthiness standard at the issue state prevailing at the time of its approval (or notified application). Similarly, it is not clear how the following situation would be dealt with: an existing European design previously 'approved' against issue 2 of the ASTM in the US, now to be approved in Europe - would it be approved against issue 2 of the ASTM or the latest issue?
response	*Noted* Concerning the relations with ASTM, please see CRD Part I paragraph 8. The point about grand-fathering is understood as meaning certification of 'derivatives': the general principles defined in the change product rule in Part 21 (21A.101) for aircraft below 6000 lbs would apply. Concerning the third point, it would be the latest standards as the provisions of existing bilateral agreements do not cover this case.

comment	*438* comment by: *P&M Aviation* The Creation of a Certification Specification For Light Sport Aeroplanes only appears to cater for three axis aircraft and does not include other types of aircraft such as Weight Shift Microlights and this category of aircraft should be included. The ASTM standard F-2317 covers this code, although it could benefit from a few areas being stricter.
response	*Not accepted*

Microlight aircraft are Annex II aircraft and outside the scope of the EASA remit. Please note also that there is a very strong consensus among stakeholders not to modify Annex II.

comment 453 comment by: *www.fascination-pilots.de*

Comment 2 valid also here.

response *Noted*

Please see reply to comment No 449.

comment 454 comment by: *www.fascination-pilots.de*

The slight differences have a noticeable effect to the product:

- A limitation do Day VFR only is considered not acceptable, as the standard explicitly provides requirements for night VFR (already now) and IFR (upcoming right now) operation.
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response *Not accepted*

Relative to limitations:
IMC and night VFR may also be accepted when complying with an appropriate appendix to CS-LSA. This appendix will include in particular the necessary additional specifications for power plant and systems.

Relative to ASTM standards:
The described system has merit; however, the system provided by TC provides a legal certainty to the applicant. This does not prevent the applicant from upgrading the aircraft in accordance with Part-21 and the fees and charges regulation. The flexibility provided by the special conditions already incorporated into Part-21 is comparable to the flexibility of ASTM process to upgrade the standards.

comment 489 comment by: *light-wings Oliver Liedmann*

Comment 2 valid also here.

response *Noted*

Please see reply to comment No 483.

comment	*490* comment by: *light-wings Oliver Liedmann* The slight differences have a noticeable effect to the product: • - A limitation do Day VFR only is considered not acceptable, as the standard explicitly provides requirements for night VFR (already now) and IFR (upcoming right now) operation. We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA. • - It is in the very nature of the ASTM standard, to evolve, in order to further raise the level of safety and keep the requirements always up to date. For FAA registered LSA it is a must, after a certain transition time, for the applicant to upgrade his design in line with newer standards. In the implementation proposed by EASA, an applicant may choose to stay on the lower level, selling an aircraft of the same category at a lower level of qualification, whilst others are forced to update, as they already have to do when they sell to FAA world.
response	*Not accepted* Relative to limitations: IMC and night VFR may also be accepted when complying with an appropriate appendix to CS-LSA. This appendix will include in particular the necessary additional specifications for power plant and systems. Relative to ASTM standards: The described system has merit; however, the system provided by TC provides a legal certainty to the applicant. This does not prevent the applicant from upgrading the aircraft in accordance with Part-21 and the fees and charges regulation. The flexibility provided by the special conditions already incorporated into Part-21 is comparable to the flexibility of ASTM process to upgrade the standards.

comment	*505* comment by: *aeroklaus* Comment 5 Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Creation of a Certification Specification for Light Sport Aeroplanes Comment 2 valid also here.
response	*Noted* Pleae see reply to comment No 502.

comment	*506* comment by: *aeroklaus* Comment 6 Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process -

Creation of a Certification Specification for Light Sport Aeroplanes

The slight differences have a noticeable effect to the product:
A limitation do Day VFR only is considered not acceptable, as the standard explicitly provides requirements for night VFR (already now) and IFR (upcoming right now) operation.☐We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.
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response

Not accepted

Relative to limitations:
IMC and night VFR may also be accepted when complying with an appropriate appendix to CS-LSA. This appendix will include in particular the necessary additional specifications for power plant and systems.

Relative to ASTM standards:
The described system has merit; however, the system provided by TC provides a legal certainty to the applicant. This does not prevent the applicant from upgrading the aircraft in accordance with Part-21 and the fees and charges regulation. The flexibility provided by the special conditions already incorporated into Part-21 is comparable to the flexibility of ASTM process to upgrade the standards.

comment

585 comment by: *klaus M*

Comment 5
Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Creation of a Certification Specification for Light Sport Aeroplanes

Comment 2 valid also here.

response

Noted

Please see response to comment No 582.

comment

586 comment by: *klaus M*

Comment 6
Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Creation of a Certification Specification for Light Sport Aeroplanes
The slight differences have a noticeable effect to the product:
- A limitation do Day VFR only is considered not acceptable, as the standard

explicitly provides requirements for night VFR (already now) and IFR (upcoming right now) operation.
We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.
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Not accepted

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comment

606 comment by: *Cessna Aircraft Company*

Negative - the proposal to limit aircraft to "Day VFR" manufacture standards does not promote safe flying.

Proposal 1: Limiting the certification of a LSA 3 aircraft to "VFR day" operation only is counter productive to flight safety. The pilot flying the aircraft may be limited to "VFR day" flight only, but the aircraft manufacturer needs the flexibility to produce an aircraft with the required safety and operating equipment to fly at night and in IFR operations. One of the leading causes of fatal general aviation accidents is a pilots inability to fly or recover an aircraft after entering clouds, fog, heavy rain, or other like weather condition. Not allowing an aircraft to be equipped with basic night and IFR equipment could quickly translate to increased fatal accident rates in Europe. Manufacturers need to retain the ability to produce aircraft equipped to fly at night and in IFR conditions.

response

Not accepted

Relative to limitations:
IMC and night VFR may also be accepted when complying with an appropriate appendix to CS-LSA. This appendix will include in particular the necessary additional specifications for power plant and systems.

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The described system has merit; however, the system provided by TC provides a legal certainty to the applicant. This does not prevent the applicant from upgrading the aircraft in accordance with Part-21 and the fees and charges regulation. The flexibility provided by the special conditions already incorporated into Part-21 is comparable to the flexibility of ASTM process to upgrade the standards.

comment

611 comment by: *Peter VON BURG*

LSA standard is not limited to day VFR and non-IFR operation. Thus we see no reason to limit the operation in the initial airworthiness code different than LSA.

It is the nature of the ASTM standart to be open and to envolve in order to include experience and raise the level of savety even during the lifetime of an aircraft. The EASA implementation does not include this process.

It is in the nature of the ASTM standard to leafe the responsibility at the designer/manufacturer (see F2245-07, 1.3 This standard does not purport to address all of the safety concerns, if any, ... It is the responsibility of the user ....).
Thus the ASTM standard calls for a responsible user and is almost impossible to be certified by an independent certification agency.

response

Not accepted

Relative to limitations:
IMC and night VFR may also be accepted when complying with an appropriate appendix to CS-LSA. This appendix will include in particular the necessary additional specifications for power plant and systems.
Relative to ASTM standards:
The described system has merit; however, the system provided by TC provides a legal certainty to the applicant. This does not prevent the applicant from upgrading the aircraft in accordance with Part-21 and the fees and charges regulation. The flexibility provided by the special conditions already incorporated into Part-21 is comparable to the flexibility of ASTM process to upgrade the standards.

comment

622 comment by: *European Sailplane Manufacturers*

The European sailplane manufacturers feel that inclusion of part of the certification standards of the American LSA system symply as a new CS standard might not really be reflecting the good experiences made in the USA.

There a new system was created which mostly was aimed for minimum authority (FAA) participation.
This made clear to manufacturers and operators that they have to bear the responsibility in their sector of aviation.
Parallel this made this part of aviation much more affordable.

This propably explains the high level of acceptance on the side of pilots and manufacturers and the economic success.

It is a pity that the only consequence taken by EASA within MDM.032 from this excellent US experience is now the adaption of an airworthiness code.

response

Noted

This was not introduced at this stage but might be an outcome of Task BR.010. Please see CRD Part I paragraph 2.

comment

630 comment by: *Martin Josef Warken*

Comment 5
Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Creation of a Certification Specification for Light Sport Aeroplanes

Comment 2 valid also here.

response

Noted

Please see reply to comment No 628.

comment

631 comment by: *Martin Josef Warken*

Comment 6
Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Creation of a Certification Specification for Light Sport Aeroplanes

The slight differences have a noticeable effect to the product:

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response

Not accepted

Relative to limitations:
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Relative to ASTM standards:

The described system has merit; however, the system provided by TC provides a legal certainty to the applicant. This does not prevent the applicant from upgrading the aircraft in accordance with Part-21 and the fees and charges regulation. The flexibility provided by the special conditions already incorporated into Part-21 is comparable to the flexibility of ASTM process to upgrade the standards.

comment

660 comment by: *EAA*

Page 10 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - Creation of a Certification Specification for Light Sport Aeroplanes

Negative - the proposal to limit aircraft to "Day VFR" manufacture standards does not promote safe flying.

Proposal 1: Limiting the certification of a LSA 3 aircraft to "VFR day" operation only is counter productive to flight safety. The pilot flying the aircraft may be limited to "VFR day" flight only, but the aircraft manufacturer needs the flexibility to produce an aircraft with the required safety and operating equipment to fly at night and in IFR operations. One of the leading causes of fatal general aviation accidents is a pilot's inability to fly or recover an aircraft after entering clouds, fog, heavy rain, or other like weather conditions. Not allowing an aircraft to be equipped with basic night and IFR equipment could quickly translate to increased fatal accident rates in Europe. Manufacturers need to retain the ability to produce aircraft equipped to fly at night and in IFR conditions.

response

Not accepted

Relative to limitations:
IMC and night VFR may also be accepted when complying with an appropriate appendix to CS-LSA. This appendix will include in particular the necessary additional specifications for power plant and systems.

Relative to ASTM standards:
The described system has merit; however, the system provided by TC provides a legal certainty to the applicant. This does not prevent the applicant from upgrading the aircraft in accordance with Part-21 and the fees and charges regulation. The flexibility provided by the special conditions already incorporated into Part-21 is comparable to the flexibility of ASTM process to upgrade the standards.

comment

697 comment by: *Deutscher Aero Club e.V. (DAeC)*

DAeC welcomes the creation of Certification Specifications for Light Sport Aeroplanes.

response

Noted

The Agency thanks the commentator for their support.

comment

708 comment by: *procomposite*

The slight differences have a noticeable effect to the product:

- - A limitation do Day VFR only is considered not acceptable, as the

standard explicitly provides requirements for night VFR (already now) and IFR (upcoming right now) operation.
We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.

- - It is in the very nature of the ASTM standard, to evolve, in order to further raise the level of safety and keep the requirements always up to date. For FAA registered LSA it is a must, after a certain transition time, for the applicant to upgrade his design in line with newer standards. In the implementation proposed by EASA, an applicant may choose to stay on the lower level, selling an aircraft of the same category at a lower level of qualification, whilst others are forced to update, as they already have to do when they sell to FAA world.

response

Not accepted

Relative to limitations:
IMC and night VFR may also be accepted when complying with an appropriate appendix to CS-LSA. This appendix will include in particular the necessary additional specifications for power plant and systems.

Relative to ASTM standards:
The described system has merit; however, the system provided by TC provides a legal certainty to the applicant. This does not prevent the applicant from upgrading the aircraft in accordance with Part-21 and the fees and charges regulation. The flexibility provided by the special conditions already incorporated into Part-21 is comparable to the flexibility of ASTM process to upgrade the standards.

comment

729 comment by: *Oliver*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Noted

Refer to CRD Part I paragraph (b) 3, 4 and 5 relative to demonstration of capability for design, production and combined DOA/POA.

comment

730 comment by: *Oliver*

The slight differences have a noticeable effect to the product:

- A limitation do Day VFR only is considered not acceptable, as the standard explicitly provides requirements for night VFR (already now) and IFR (upcoming right now) operation.
We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.

- It is in the very nature of the ASTM standard, to evolve, in order to further raise the level of safety and keep the requirements always up to date. For FAA registered LSA it is a must, after a certain transition time, for the applicant to upgrade his design in line with newer standards. In the implementation proposed by EASA, an applicant may choose to stay on the lower level, selling an aircraft of the same category at a lower level of qualification, whilst others are forced to update, as they already have to do when they sell to FAA world.

response

Not accepted

Relative to limitations:
IMC and night VFR may also be accepted when complying with an appropriate appendix to CS-LSA. This appendix will include in particular the necessary additional specifications for power plant and systems.

Relative to ASTM standards:
The described system has merit; however, the system provided by TC provides a legal certainty to the applicant. This does not prevent the applicant from upgrading the aircraft in accordance with Part-21 and the fees and charges regulation. The flexibility provided by the special conditions already incorporated into Part-21 is comparable to the flexibility of ASTM process to upgrade the standards.

comment

755 comment by: *Air Marugan*

Comment 5
Comment 2 valid also here.

response

Noted

Please see reply to comment No 752.

comment

756 comment by: *Air Marugan*

Comment 6

The slight differences have a noticeable effect to the product:

- A limitation do Day VFR only is considered not acceptable, as the standard explicitly provides requirements for night VFR (already now) and IFR (upcoming right now) operation.
We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.

- It is in the very nature of the ASTM standard, to evolve, in order to further raise the level of safety and keep the requirements always up to date. For FAA registered LSA it is a must, after a certain transition time, for the applicant to upgrade his design in line with newer standards. In the implementation proposed by EASA, an applicant may choose to stay on the lower level, selling an aircraft of the same category at a lower level of qualification, whilst others are forced to update, as they already have to do when they sell to FAA world.

response *Not accepted*

Relative to limitations:
IMC and night VFR may also be accepted when complying with an appropriate appendix to CS-LSA. This appendix will include in particular the necessary additional specifications for power plant and systems.

Relative to ASTM standards:
The described system has merit; however, the system provided by TC provides a legal certainty to the applicant. This does not prevent the applicant from upgrading the aircraft in accordance with Part-21 and the fees and charges regulation. The flexibility provided by the special conditions already incorporated into Part-21 is comparable to the flexibility of ASTM process to upgrade the standards.

comment *781* comment by: *Herbert HERGET*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high, that it can hold with those as found for Part 23 aircraft. There is no connection visible, that a self declaratio n of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising=2 0of requirements / requirement of approvals can not be argued with additional safety. As a fact, reducing the hurdles leads to a much more efficient market self control, than could be achieved by Agency control. This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing. In all countries, where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II), it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response | *Noted*

Refer to CRD Part I paragraph (b) 3, 4 and 5 relative to demonstration of capability for design, production and combined DOA/POA.

A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the introduction of standard changes and standard repairs p. 10-11

comment | *68* ❖ comment by: *Michael GREINER*

NOTE:
This comment was made against this section of the NPA. This comment and the response are however only reflected once at page 6 of this CRD in order to improve readability.

response | *Noted*

comment | *92* comment by: *René Fournier*

The definition of Certification Specifications for standard changes and repairs is a welcome concrete simplification that will alleviate burden on stakeholders.

response | *Noted*

The Agency thanks the commentator for his support.

comment | *140* comment by: *Fridrich Jan*

Mám pochybnosti o tom jak bude fungovat systém jednoduchých a závažných změn (minor and major changes) které budou schvalovány EASA
- Jak dlouho to bude trvat? Systém je vhodný pro letouny pod 5,7t - bude to vhodné I pro LSA?

Je nutné používat ekvivalent AC 43-13 1b a 2b.

Navrhuji:
1/v prvním kroku převzít AC43-13 1a a 1b tak jak je
2/ v dalším kroku jej aktualizovat o nové technologie používané v Evropě

response | *Accepted*

The intention is to include in the first issue of the envisaged CS the material included in the AC 43-13 1B and 2B. Then the CS will be updated on a yearly basis: this will allow taking into account the technological progress and updates of the US AC.

comment | *183* comment by: *Ingmar Hedblom*

The idea to develop dedicated Certification Specifications based on the FAA Advisory Circulars AC 43-13 1B and 2B is supported. This guidance is widely used today in maintaining airworthiness and allowed by several member states.

Since the rulemaking procedure to properly evaluate and approve the content

may take a considerable time it is suggested that the present FAA circulars are allowed to be legally used in the meantime via additional derogations in 21A.96 and 21A.436

response

Noted

The Agency thanks the commentator for his support.
The intention is to include in the first issue of the envisaged CS the material included in the AC 43-13 1B and 2B. Then the CS will be updated on a yearly basis: this will allow taking into account the technological progress and updates of the US AC.

comment

191 comment by: *Walter Gessky*

Further considerations on the introduction of standard changes and standard repairs
It should be clarified that major alterations in the US systems are always related to minor design changes. This has to be taken into consideration when using FAR 43.13-2 as basis for standard changes. This should be clarified in Subpart D.

response

Noted

The intention is to include in the first issue of the envisaged CS the material included in the AC 43-13 1B and 2B. Then the CS will be updated on a yearly basis: this will allow taking into account the technological progress and updates of the US AC.
The CS will contain instructions of use of the US AC in the European context.

comment

231 comment by: *Lyndhurst Touchdown*

Our company would like the inclusion of airworthiness code FAR 23 amendment 7 as an acceptable airworthiness code.

Justification

This code is widely used internationally and is an accepted code in many countries.

The code has a proven track record in terms of producing airworthy aircraft.

Designers and manufacturers have experience and understanding of this code and would use it effectively and efficiently to produce aircraft of high airworthiness standards.

response

Accepted

Refer to CRD Part I paragraph (b) 2 criteria for ELA1 and ELA2.

comment

435 comment by: *Light Aircraft Association UK*

In principle, this sounds like a very good way of reducing the burden on the organisations which will have to approve these modifications and repairs, as well as the owners. At the moment it's not clear who would be able to conduct and then authorise these repairs. Given that the proposals represent an improvement on the current situation with CoA aircraft, this process should be a benefit. The timescale for issuance of this proposed CS must be coincident

with the introduction of ELA, otherwise the whole system of repairs and modifications will be very burdensome on the owners and overwhelming for the regulators.

response *Accepted*

The standard changes or repairs will be deemed approved by the Agency when it is designed in accordance with the envisaged CS. The installation of the repair will be done in accordance with Part-M. The Agency agrees that the issue of the CS need to be done rapidly: the first issue of the envisaged CS will include the material included in the AC 43-13 1B and 2B.

comment *623* comment by: *European Sailplane Manufacturers*

Inclusion of "Standard Changes and Repairs" is applauded by the European sailplane manufacturers.

The operation of tens of thousands of sailplanes all over Europe is only possible if the maintenance stations and repair shops can work with some acceptable procedures without the need for individual approval.

Part 21 has complicated this very much and some manufacturers have countered this by including standard changes/repairs to their respective TC´s via EASA approval of regarding changes.

If this situation could now be rectified by according amendment of Part 21 this is been considered from the side of the manufacturers as very helpful.

Regarding the often specialized designs and manufacturing techniques for sailplanes it is proposed to consider assistance from the sailplane manufacturers when drafting the according CS as mentioned in the NPA.

response *Accepted*

The Agency thanks the commentator for their support.
The intention is to include in the first issue of the envisaged CS the material included in the AC 43-13 1B and 2B. Then the CS will be updated on a yearly basis: this will allow taking into account the technological progress and updates of the US AC.
As the CS will be published for comments, stakeholders will have an opportunity to input. When updating the CS, the help of manufacturers will be appreciated.

comment *686* comment by: *Evektor*

EVEKTOR position:
introducing system comparable to the one existing in the US would be strong advantage.
As a first step EVEKTOR suggest to accept current US system as soon as possible.
As a second step to "update" current US system and create new modern EASA system of acceptable methods, techniques and practice which would be, of couse, acceptable by FAA.

response *Accepted*

The intention is to include in the first issue of the envisaged CS the material

included in the AC 43-13 1B and 2B. Then the CS will be updated on a yearly basis: this will allow taking into account the technological progress and updates of the US AC

comment

710 comment by: *Europe Air Sports, VP*

We appreciate the position EASA is taking on ICAO Annex 8 Chapter V which is not being applied to ELA processed aircraft, and the intention of EASA to produce (or approve) standard procedures for repairs and modifications.
Proposal
For the time being, to the benefit of the owners of aircraft, this should be the FAA AC 43-13 until EASA has produced its own standard compendium.

response

Accepted

The intention is to include in the first issue of the envisaged CS the material included in the AC 43-13 1B and 2B. Then the CS will be updated on a yearly basis: this will allow taking into account the technological progress and updates of the US AC

A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - AMC and GM to be produced or modified p. 11-12

comment

76 comment by: *Dyn'aéro*

Commentaires sur le paragraphe 21A.16A (AMC)/ *Comments on paragraph 21A.16A (AMC)*

Proposition :
Dyn'Aéro propose que soit ajoutée une AMC 21A.16 A comme suit :
"AMC 21A16A
Airworthiness codes for the aircrafts defined in 21A.14 (b) and (c), the FAR 23 amendment 7 (enabled the 14th of September, 1969) is an acceptable airworthiness code."

Raisons :

- La plupart des aéronefs en service aujourd'hui dans le cadre d'une exploitation de loisir ont été certifié sur les bases du code technique FAR23 Amendement 9.
- Ce code a démontré sa pertinence et a donné toute satisfaction au niveau de la sécurité des vols.
- La possibilité d'introduction comme code possible de ce code reconnu permettrait d'atteindre le même niveau de sécurité et simplifierait énormément le recours à des AMC pour la plupart des points inadapté à l'avion légère qui de fait ont été introduit postérieurement à la FAR 23 Amendement 7.

Proposal :

Dyn'Aéro proposes to add a AMC 21A.16 A as follows:
"AMC 21A16A
Airworthiness codes for the aircrafts defined in 21A.14 (b) and (c), the FAR 23 amendment 7 (enabled the 14th of September, 1969) is an acceptable airworthiness code."

Reasons :

- *Most aircraft in service today as part of a recreational operation were certified on the basis of the airwortiness code FAR23 Amendment 9.*
- *The code has demonstrated its relevance and gave full satisfaction at the level of flight safety.*
- *The introduction possibility as possible code of this recognized code would achieve the same level of security and greatly simplify the use of AMC for most points unsuited to light aircraft which have actually been introduced after the FAR 23 Amendment 7.*

Commentaires sur le paragraphe 21A.16B (AMC) / *Comments on paragraph 21A.16B (AMC)*

Proposition :
Dyn'Aéro propose que soit ajoutée une AMC 21A.16 B comme suit :
"AMC 21A16B
Special conditions for the aircrafts defined in 21A.14 (b) and (c),

"AMC 21A16B

Special conditions for aircraft as defined in paragraphs 21A.14 (b) and (c)

1. *An acceptable means of compliance developed for an airworthiness code suitable for light aircraft by a recognized authority can be used as an acceptable means of compliance by the applicant insofar it was developed for aircraft like (failing to answer exactly to the definition of the aircraft applicant).*
2. *The use of a non-aeronautical accessory but satisfying technical standard which covers the airworthiness reference code requirements is considered as an AMC.*
3. *A reasoning based on experience, insofar as this experiment was conducted in a sufficiently documented framework, can be considered as an AMC.*
4. *Using an AC (Advisory circular) is seen as an AMC insofar as this AC is directly linked with paragraph to demonstrate.*
5. *Justifications by calculation will be acceptable to replace static or dynamic tests insofar as the assumptions of these calculations and used methods:*
   - are commonly accepted and,
   - have already been validated on similar aircraft by the supplier.
6. *Some non-compliances concerning the flight handling qualities as defined in the relevant CS are acceptable if they do not jeopardize the safety level in relation with the operating conditions of the aircraft. "*

Raisons générales :

Une bonne partie des économies réalisables vient de la possibilité d'utiliser des moyens de conformités moins contraignants financièrement que les moyens actuels, ainsi que de limiter certaines actions aux éléments engageant réellement la sécurité.
L'utilisation des AMC est soulignée dans la NPA mais pas de manière suffisamment précise.
Raison point 1 :

Un travail important a été réalisé par le passé dans le cadre de rédaction d'AMC pour les avions légers pour la définition de code technique de référence. Ce travail a conduit à des AMC dont la pertinence a put déjà être

vérifié dans le cadre de certification. Ce travail doit être utilisé. Il s'agit, par exemple, des ACJ de la CS VLA qui sont tout à fait applicable aux paragraphes correspondants de la CS 23 ou de la FAR 23 Amendement 7.

Raison point 2 :

De nombreux accessoires pouvant être utilisés dans un aéronef sont utilisés dans des domaines proposant des normes plus contraignante que les normes aéronautiques. Le fait de pouvoir les utiliser directement dans l'aéronef uniquement en comparant les codes aéronautiques aux codes en vigueur pour ses pièces est un gain de temps et d'argent pour l'avionneur sans toucher au niveau de sécurité de l'aéronef.
Par exemple une ceinture de sécurité automobile répondant à l'UTAC, norme couvrant les contraintes de la CS VLA ou CS 23 serait utilisable après comparaison de l'UTAC.

Raison point 3 :

Dans de nombreux pays pour des aéronefs en annexe II de l'EASA, il existe une obligation de suivit de navigabilité des pièces principales des aéronefs avec un contrôle de l'autorité. Aussi, le niveau de sécurité des accessoires en question est d'ors et déjà validé par cette expérience. Il est alors inutile d'engendrer des coûts supplémentaires pour la certification.
Par exemple L'utilisation d'une roue sans TSo, exploitée dans le cadre de plus de 100 aéronefs en CNSK (aéronefs en kits en France : code imposant un suivit de navigabilité vérifié par la DGAC), serait un AMC.

Raison point 4 :

De la même manière que le point 1 des AC ont été réalisés par la FAA basé sur l'expérience et validé par l'expérience pour la justification de différents points techniques par des équivalents de sécurités. Aussi, de manière pragmatique, le niveau de sécurité peut être assuré directement en utilisant ses AC .
L'utilisation de l'AC 20-146 sur les sièges pour le crash serait utilisable comme AMC pour la justification du crash §23.A.562.

Raison point 5 :

De nombreuses méthodes simplificatrices sont couramment admises dans le cadre de la conception des avions légers depuis très longtemps. Ces hypothèses simplificatrices (sur le calcul des charges ou la justification des pièces) ont démontrés leur pertinence notamment dans le cadre de la justification d'aéronefs en annexe II de l'EASA. Tout en ne diminuant pas le niveau de sécurité, l'utilisation de ses méthodes, en particulier lorsque la technologie est connue et classique, permettrait de diminuer le coût de la certification.
Exemple : La justification d'un train d'atterrissage mécanique par calcul et application des charges statiques de la CS est acceptable en lieu et place des essais dynamiques dans le mesure ou il s'agit de pièces classiques en acier et avec un calcul par la méthode des poutres longues.

Raison point 6 :

Aucun aéronef léger actuellement certifié ne répond totalement aux codes techniques de certification en ce qui concerne les qualités de vol. En effet, et en partie en raison de la faible masse de ses aéronefs et de leur sur

motorisation (pour certains), il est toujours possible de trouver une légère instabilité latérale ou longitudinale proche du décrochage. Ou bien, autre exemple, les aéronefs de voltige par définition sont bien souvent instable latéralement, et « nécessite une habilité particulière » compte tenu de leur sur motorisation. Ces non respects ponctuels des qualités de vol définies dans les codes techniques n'ont jamais démontré avoir eut une influence négative sur le niveau de sécurité des aéronefs.
D'autre part, il convient de mettre en relation les qualités de vol d'un aéronef avec son domaine d'utilisation. En effet, l'on ne peut pas demander les mêmes qualités de vol à un aéronef de compétition monoplace de 300hp piloté par une élite avec un avion biplace école de 80hp.
En prenant en compte pragmatiquement ce point, il est possible d'alléger les contraintes pour certaines machines tout en ne pénalisant pas le niveau de sécurité.

Proposal :

Dyn'Aéro proposes to add a AMC 21A.16 B as follows :
"AMC 21A16B

Special conditions for aircraft as defined in paragraphs 21A.14 (b) and (c)

1. *An acceptable means of compliance developed for an airworthiness code suitable for light aircraft by a recognized authority can be used as an acceptable means of compliance by the applicant insofar it was developed for aircraft like (failing to answer exactly to the definition of the aircraft applicant).*
2. *The use of a non-aeronautical accessory but satisfying technical standard which covers the airworthiness reference code requirements is considered as an AMC.*
3. *A reasoning based on experience, insofar as this experiment was conducted in a sufficiently documented framework, can be considered as an AMC.*
4. *Using an AC (Advisory circular) is seen as an AMC insofar as this AC is directly linked with paragraph to demonstrate.*
5. *Justifications by calculation will be acceptable to replace static or dynamic tests insofar as the assumptions of these calculations and used methods:*
   - are commonly accepted and,
   - have already been validated on similar aircraft by the supplier.
6. *Some non-compliances concerning the flight handling qualities as defined in the relevant CS are acceptable if they do not jeopardize the safety level in relation with the operating conditions of the aircraft. "*

General reasons :

Much of the money savings comes from the possibility of using acceptable means of compliance cheaper than the present ones, as well as to limit certain actions to the elements involving real safety.
The use of AMC is mentioned in the NPA but not sufficiently precise.

Reason item 1 :

A considerable work has been done in the past in the framework of AMC elaboration for light aircrafts to define certification reference code. This work has led to AMC whose relevance has put already be checked as part of

certification. This work must be used. These include, for example, ACJ of the CS VLA which are quite applicable to the relevant paragraphs of the CS 23 or FAR 23 Amendment 7.

Reason item 2 :

Many accessories, which can be used in an aircraft, are used in various domains proposing standards more stringent than aviation standards. Being able to use them directly into the aircraft only by comparing the aeronautical codes with the technical standards are time and money savings for the manufacturer without affecting the level of safety of the aircraft.
For example, a car safety belt responding to the UTAC, standard which covers the CS VLA or CS 23 requirements would be suitable after comparison of UTAC.
Reason item 3 :

In many countries and for aircrafts under Annex II of the EASA, there exists an obligation to follow the airworthiness of the major parts of the aircraft and with a control by the authority. Also, the safety level of accessories is already validated by the experience. It is therefore unnecessary to create additional costs for certification.
For example the use of a wheel without TSo, operated on more than 100 CNSK aircraft (aircraft kits in France: code imposing an airworthiness following checked by the DGAC), would be a AMC.

Reason item 4 :

In the same way that item 1, some ACs have been made by the FAA based on the experience and validated by experience for the justification of various technical points by safety equivalents. Also, in a pragmatic manner, the safety level can be provided directly using theses AC.
The use of AC 20-146 concerning seats for the crash would be suitable as AMC for the justification of the crash (CS 23.A.562).

Reason Item 5 :

Many simplifying methods are commonly accepted as part of the design of light aircraft for a very long time. These simplifying assumptions (on the load calculation or justification of the parts) have demonstrated their relevance in the context of justification of aircraft under the Annex II of the EASA.
While it does not diminish the level of security, the use of its methods, especially when technology is known and classical, would reduce the certification cost.
Example*: The justification of a mechanical landing gear by calculation and application of the static loads of the CS is acceptable instead of dynamic tests insofar they are classical steel parts and with a calculation by the method of long beams.*

Reason item 6 :

No currently certified light aircraft entirely fulfils the certification code requirements regarding the flight handling qualities. Indeed, and partly because of the low weight of theses aircraft and of their over-powerful motorization (for some), it is always possible to find a slight lateral or longitudinal instability near the stall. Or, another example, aerobatic aircrafts by definition are often unstable laterally, and "requires a particular agility" given on their engine. These non-compliances of handling qualities as defined

in the certification specification have never shown to have had a negative influence on the level of aircraft safety.
On the other hand, it is necessary to relate the flight handling qualities of an aircraft with its envelop of operation. Indeed, we can not require the same qualities of a competition singleseater 300hp aircraft piloted by an elite with a two-seater training 80hp aircraft.
Taking into account this issue pragmatically, it is possible to alleviate the constraints for some machines while not penalising the safety level.

Commentaires sur le paragraphe 23.A.903 (AMC) / Comments on paragraph 23.A.903 (AMC)

Proposition :
Dyn'Aéro propose que soit ajoutée une AMC 23.A.903 comme suit :
"AMC 23.A.903

For the ELA aircrafts, the engine may be type certificated under JAR-E, JAR-22 Subpart H, or FAR Part 33."

Raisons :

Cette disposition, déjà existante avec les aéronefs certifiés avec la CS VLA, a fait ces preuves. Or les machines ELA seront très proches (masses et puissances similaires). Par ailleurs, les couts d'homologation en CS 22, s/p H sont nettement inferieurs à ceux en CS E.

Proposal :

Dyn'Aéro proposes to add a AMC 23.A.903 as follows:
"AMC 23.A.903
For the ELA aircrafts, the engine may be type certificated under JAR-E, JAR-22 Subpart H, or FAR Part 33."

Reasons :
This provision, already existing for aircrafts certified under CS VLA, gave its evidence. And the ELA machines will be very close (powers and weights are similar). In addition, the costs of approval under CS 22, s / p H are really below those under CS E.

Commentaires sur le paragraphe 23.905 (AMC) / Comments on paragraph 23.905 (AMC)

Proposition :
Dyn'Aéro propose que soit ajoutée une AMC 23.A.905 comme suit :
"AMC 23.A.905

For the ELA aircrafts, the propeller may be type certificated or otherwise approved under JAR-P, JAR-22 Subpart J, or FAR Part 35."

Raisons :

Cette disposition, déjà existante avec les aéronefs certifiés avec la CS VLA, a fait ces preuves. Or les machines ELA seront très proches (masses et puissances similaires). Par ailleurs, les couts d'homologation en CS 22, s/p J sont nettement inferieurs à ceux en CS P.

Proposal :

Dyn'Aéro proposes to add a AMC 23.A.905 as follows :
"AMC 23.A.905
For the ELA aircrafts, the propeller may be type certificated or otherwise approved under JAR-P, JAR-22 Subpart J, or FAR Part 35."
Reasons :

This provision, already existing for aircrafts certified under CS VLA, gave its evidence. And the ELA machines will be very close (powers and weights are similar). In addition, the costs of approval under CS 22, s / p J are really below those under CS P.

response

Partially accepted

FAR-23 at Amendment 7:
Refer to CRD Part I paragraph (b) 2 criteria for ELA1 and ELA2.
Special conditions:
Although called special conditions by the commentator, the points raised are more related to AMC.
Relative to points 1, 3, 4 and 5, the Agency has always the possibility to accept alternative AMC to airworthiness codes than those published. See also reply to comment No 74.
The issue raised in point 2 is covered by the possibility to use parts without a Form 1 under certain conditons for ELA aircraft.
Relative to point 6, equivalent level of safety can be accepted. Deviations from the airworthiness codes can also be accepted (using the "unless otherwise accepted" provision of Part 21A.17) provided they still comply with the essential requirements. Furthermore in the case of aeroplanes to be used for aerobatic competition, restricted certificate of airworthiness based on specific airworthiness specifications can be issued. Please refer to NPA 2008-06 for further information.
The Agency agrees in substance with the comment but does not see therefore the need to issue the proposed AMC to Part-21.

Engine and propellers:
Refer to CRD Part I paragraph (b) 1 relative to TC and RTC.

comment

81 comment by: *PZL-Austria Handelsagentur*

Proposal :

I propose to add a AMC 21A.16 A as follows:

"AMC 21A16A
Airworthiness codes for the aircrafts defined in 21A.14 (b) and (c), the FAR 23 amendment 7 (enabled the 14th of September, 1969) is an acceptable airworthiness code."

Reasons :

- *Most aircraft in service today as part of a recreational operation were certified on the basis of the airwortiness code FAR23 Amendment 7.*
- *The code has demonstrated its relevance and gave full satisfaction at the level of flight safety.*
- *The introduction possibility as possible code of this recognized code*

would achieve the same level of security and greatly simplify the use of AMC for most points unsuited to light aircraft which have actually been introduced after the FAR 23 Amendment 7.

Also I propose to add a AMC 21A.16 B as follows :
"AMC 21A16B

Special conditions for aircraft as defined in paragraphs 21A.14 (b) and (c)

1. *An acceptable means of compliance developed for an airworthiness code suitable for light aircraft by a recognized authority can be used as an acceptable means of compliance by the applicant insofar it was developed for aircraft like (failing to answer exactly to the definition of the aircraft applicant).*
2. *The use of a non-aeronautical accessory but satisfying technical standard which covers the airworthiness reference code requirements is considered as an AMC.*
3. *A reasoning based on experience, insofar as this experiment was conducted in a sufficiently documented framework, can be considered as an AMC.*
4. *Using an AC (Advisory circular) is seen as an AMC insofar as this AC is directly linked with paragraph to demonstrate.*
5. *Justifications by calculation will be acceptable to replace static or dynamic tests insofar as the assumptions of these calculations and used methods:*
   - are commonly accepted and,
   - have already been validated on similar aircraft by the supplier.
6. *Some non-compliances concerning the flight handling qualities as defined in the relevant CS are acceptable if they do not jeopardize the safety level in relation with the operating conditions of the aircraft. "*

General reasons :

Much of the money savings comes from the possibility of using acceptable means of compliance cheaper than the present ones, as well as to limit certain actions to the elements involving real safety.
The use of AMC is mentioned in the NPA but not sufficiently precise.

Reason item 1 :

A considerable work has been done in the past in the framework of AMC elaboration for light aircrafts to define certification reference code. This work has led to AMC whose relevance has put already be checked as part of certification. This work must be used. These include, for example, ACJ of the CS VLA which are quite applicable to the relevant paragraphs of the CS 23 or FAR 23 Amendment 7.

Reason item 2 :

Many accessories, which can be used in an aircraft, are used in various domains proposing standards more stringent than aviation standards. Being able to use them directly into the aircraft only by comparing the aeronautical codes with the technical standards are time and money savings for the manufacturer without affecting the level of safety of the aircraft.
For example, a car safety belt responding to the UTAC, standard which covers the CS VLA or CS 23 requirements would be suitable after comparison of UTAC.
Reason item 3 :

In many countries and for aircrafts under Annex II of the EASA, there exists an obligation to follow the airworthiness of the major parts of the aircraft and with a control by the authority. Also, the safety level of accessories is already validated by the experience. It is therefore unnecessary to create additional costs for certification.

Reason item 4 :

In the same way that item 1, some ACs have been made by the FAA based on the experience and validated by experience for the justification of various technical points by safety equivalents. Also, in a pragmatic manner, the safety level can be provided directly using theses AC.
The use of AC 20-146 concerning seats for the crash would be suitable as AMC for the justification of the crash (CS 23.A.562).

Reason Item 5 :

Many simplifying methods are commonly accepted as part of the design of light aircraft for a very long time. These simplifying assumptions (on the load calculation or justification of the parts) have demonstrated their relevance in the context of justification of aircraft under the Annex II of the EASA.
While it does not diminish the level of security, the use of its methods, especially when technology is known and classical, would reduce the certification cost.

Reason item 6 :

No currently certified light aircraft entirely fulfils the certification code requirements regarding the flight handling qualities. Indeed, and partly because of the low weight of theses aircraft and of their over-powerful motorization (for some), it is always possible to find a slight lateral or longitudinal instability near the stall. Or, another example, aerobatic aircrafts by definition are often unstable laterally, and "requires a particular agility" given on their engine. These non-compliances of handling qualities as defined in the certification specification have never shown to have had a negative influence on the level of aircraft safety.
On the other hand, it is necessary to relate the flight handling qualities of an aircraft with its envelop of operation. Indeed, we can not require the same qualities of a competition singleseater 300hp aircraft piloted by an elite with a two-seater training 80hp aircraft.
Taking into account this issue pragmatically, it is possible to alleviate the constraints for some machines while not penalising the safety level.
Comments on paragraph 23.A.903 (AMC)

Proposal :

I propose to add a AMC 23.A.903 as follows:
"AMC 23.A.903
For the ELA aircrafts, the engine may be type certificated under JAR-E, JAR-22 Subpart H, or FAR Part 33."
Reasons :
This provision, already existing for aircrafts certified under CS VLA, gave its evidence. And the ELA machines will be very close (powers and weights are similar). In addition, the costs of approval under CS 22, s / p H are really below those under CS E.
Comments on paragraph 23.905 (AMC)

Proposal :

I propose to add a AMC 23.A.905 as follows :
"AMC 23.A.905
For the ELA aircrafts, the propeller may be type certificated or otherwise approved under JAR-P, JAR-22 Subpart J, or FAR Part 35."
Reasons :
This provision, already existing for aircrafts certified under CS VLA, gave its evidence. And the ELA machines will be very close (powers and weights are similar). In addition, the costs of approval under CS 22, s / p J are really below those under CS P.

response

Partially accepted

FAR-23 at Amendment 7:
Refer to CRD Part I paragraph (b) 2 criteria for ELA1 and ELA2 Special conditions:
Althought called special conditions by the commentator, the points raised are more related to AMC.
Relative to points 1, 3, 4 and 5, the Agency has always the possibility to accept alternative AMC to airworthiness codes than those published. See also reply to comment No 74.
The issue raised in point 2 is covered by the possibility to use parts without a Form 1 under certain conditons for ELA aircraft.
Relative to point 6, equivalent level of safety can be accepted. Deviations from the airworthiness codes can also be accepted (using the unless otherwise accepted provision of Part 21A.17) provided they still comply withe essential requirements. Furthermore in the case of aeroplanes to be used for aerobatic competition, restricted certificate of airworthiness based on specific airworthiness specifications can be issued. Please refer to NPA 2008-06 for further information.
The Agency agrees in substance with the comment but does not see therefore the need to issue the proposed AMC to Part-21

Engine and propellers:
Refer to CRD Part I paragraph (b) 1 relative to TC and RTC.

comment

217 comment by: *DynAero Iberica*

Commentaires sur le paragraphe 21A.16A (AMC)/ Comments on paragraph 21A.16A (AMC)

Proposition :
DynAero Ibérica propose que soit ajoutée une AMC 21A.16 A comme suit :
"AMC 21A16A
Airworthiness codes for the aircrafts defined in 21A.14 (b) and (c), the FAR 23 amendment 7 (enabled the 14th of September, 1969) is an acceptable airworthiness code."
Raisons :
• La plupart des aéronefs en service aujourd'hui dans le cadre d'une exploitation de loisir ont été certifié sur les bases du code technique FAR23 Amendement 9.
• Ce code a démontré sa pertinence et a donné toute satisfaction au niveau de la sécurité des vols.
• La possibilité d'introduction comme code possible de ce code reconnu

permettrait d'atteindre le même niveau de sécurité et simplifierait énormément le recours à des AMC pour la plupart des points inadapté à l'avion légère qui de fait ont été introduit postérieurement à la FAR 23 Amendement 7.

Proposal :
DynAero Ibérica proposes to add a AMC 21A.16 A as follows:
"AMC 21A16A
Airworthiness codes for the aircrafts defined in 21A.14 (b) and (c), the FAR 23 amendment 7 (enabled the 14th of September, 1969) is an acceptable airworthiness code."

Reasons :
• Most aircraft in service today as part of a recreational operation were certified on the basis of the airwortiness code FAR23 Amendment 9.
• The code has demonstrated its relevance and gave full satisfaction at the level of flight safety.
• The introduction possibility as possible code of this recognized code would achieve the same level of security and greatly simplify the use of AMC for most points unsuited to light aircraft which have actually been introduced after the FAR 23 Amendment 7.
Commentaires sur le paragraphe 21A.16B (AMC) / Comments on paragraph 21A.16B (AMC)

Proposition :
DynAero Ibérica propose que soit ajoutée une AMC 21A.16 B comme suit :
"AMC 21A16B
Special conditions for the aircrafts defined in 21A.14 (b) and (c),

"AMC 21A16B
Special conditions for aircraft as defined in paragraphs 21A.14 (b) and (c)
1. An acceptable means of compliance developed for an airworthiness code suitable for light aircraft by a recognized authority can be used as an acceptable means of compliance by the applicant insofar it was developed for aircraft like (failing to answer exactly to the definition of the aircraft applicant).
2. The use of a non-aeronautical accessory but satisfying technical standard which covers the airworthiness reference code requirements is considered as an AMC.
3. A reasoning based on experience, insofar as this experiment was conducted in a sufficiently documented framework, can be considered as an AMC.
4. Using an AC (Advisory circular) is seen as an AMC insofar as this AC is directly linked with paragraph to demonstrate.
5. Justifications by calculation will be acceptable to replace static or dynamic tests insofar as the assumptions of these calculations and used methods:
- are commonly accepted and,
- have already been validated on similar aircraft by the supplier.
6. Some non-compliances concerning the flight handling qualities as defined in the relevant CS are acceptable if they do not jeopardize the safety level in relation with the operating conditions of the aircraft. "

Raisons générales :

Une bonne partie des économies réalisables vient de la possibilité d'utiliser des moyens de conformités moins contraignants financièrement que les moyens actuels, ainsi que de limiter certaines actions aux éléments engageant réellement la sécurité.
L'utilisation des AMC est soulignée dans la NPA mais pas de manière

suffisamment précise.

Raison point 1 :

Un travail important a été réalisé par le passé dans le cadre de rédaction d'AMC pour les avions légers pour la définition de code technique de référence. Ce travail a conduit à des AMC dont la pertinence a put déjà être vérifié dans le cadre de certification. Ce travail doit être utilisé. Il s'agit, par exemple, des ACJ de la CS VLA qui sont tout à fait applicable aux paragraphes correspondants de la CS 23 ou de la FAR 23 Amendement 7.

Raison point 2 :

De nombreux accessoires pouvant être utilisés dans un aéronef sont utilisés dans des domaines proposant des normes plus contraignante que les normes aéronautiques. Le fait de pouvoir les utiliser directement dans l'aéronef uniquement en comparant les codes aéronautiques aux codes en vigueur pour ses pièces est un gain de temps et d'argent pour l'avionneur sans toucher au niveau de sécurité de l'aéronef.
Par exemple une ceinture de sécurité automobile répondant à l'UTAC, norme couvrant les contraintes de la CS VLA ou CS 23 serait utilisable après comparaison de l'UTAC.

Raison point 3 :

Dans de nombreux pays pour des aéronefs en annexe II de l'EASA, il existe une obligation de suivit de navigabilité des pièces principales des aéronefs avec un contrôle de l'autorité. Aussi, le niveau de sécurité des accessoires en question est d'ors et déjà validé par cette expérience. Il est alors inutile d'engendrer des coûts supplémentaires pour la certification.
Par exemple L'utilisation d'une roue sans TSo, exploitée dans le cadre de plus de 100 aéronefs en CNSK (aéronefs en kits en France : code imposant un suivit de navigabilité vérifié par la DGAC), serait un AMC.

Raison point 4 :

De la même manière que le point 1 des AC ont été réalisés par la FAA basé sur l'expérience et validé par l'expérience pour la justification de différents points techniques par des équivalents de sécurités. Aussi, de manière pragmatique, le niveau de sécurité peut être assuré directement en utilisant ses AC .
L'utilisation de l'AC 20-146 sur les sièges pour le crash serait utilisable comme AMC pour la justification du crash §23.A.562.

Raison point 5 :

De nombreuses méthodes simplificatrices sont couramment admises dans le cadre de la conception des avions légers depuis très longtemps. Ces hypothèses simplificatrices (sur le calcul des charges ou la justification des pièces) ont démontrés leur pertinence notamment dans le cadre de la justification d'aéronefs en annexe II de l'EASA. Tout en ne diminuant pas le niveau de sécurité, l'utilisation de ses méthodes, en particulier lorsque la technologie est connue et classique, permettrait de diminuer le coût de la certification.
Exemple : La justification d'un train d'atterrissage mécanique par calcul et application des charges statiques de la CS est acceptable en lieu et place des essais dynamiques dans le mesure ou il s'agit de pièces classiques en acier et

avec un calcul par la méthode des poutres longues.

Raison point 6 :

Aucun aéronef léger actuellement certifié ne répond totalement aux codes techniques de certification en ce qui concerne les qualités de vol. En effet, et en partie en raison de la faible masse de ses aéronefs et de leur sur motorisation (pour certains), il est toujours possible de trouver une légère instabilité latérale ou longitudinale proche du décrochage. Ou bien, autre exemple, les aéronefs de voltige par définition sont bien souvent instable latéralement, et « nécessite une habilité particulière » compte tenu de leur sur motorisation. Ces non respects ponctuels des qualités de vol définies dans les codes techniques n'ont jamais démontré avoir eut une influence négative sur le niveau de sécurité des aéronefs.
D'autre part, il convient de mettre en relation les qualités de vol d'un aéronef avec son domaine d'utilisation. En effet, l'on ne peut pas demander les mêmes qualités de vol à un aéronef de compétition monoplace de 300hp piloté par une élite avec un avion biplace école de 80hp.
En prenant en compte pragmatiquement ce point, il est possible d'alléger les contraintes pour certaines machines tout en ne pénalisant pas le niveau de sécurité.

Proposal :
DynAero Ibérica proposes to add a AMC 21A.16 B as follows :
"AMC 21A16B
Special conditions for aircraft as defined in paragraphs 21A.14 (b) and (c)
1. An acceptable means of compliance developed for an airworthiness code suitable for light aircraft by a recognized authority can be used as an acceptable means of compliance by the applicant insofar it was developed for aircraft like (failing to answer exactly to the definition of the aircraft applicant).
2. The use of a non-aeronautical accessory but satisfying technical standard which covers the airworthiness reference code requirements is considered as an AMC.
3. A reasoning based on experience, insofar as this experiment was conducted in a sufficiently documented framework, can be considered as an AMC.
4. Using an AC (Advisory circular) is seen as an AMC insofar as this AC is directly linked with paragraph to demonstrate.
5. Justifications by calculation will be acceptable to replace static or dynamic tests insofar as the assumptions of these calculations and used methods:
- are commonly accepted and,
- have already been validated on similar aircraft by the supplier.
6. Some non-compliances concerning the flight handling qualities as defined in the relevant CS are acceptable if they do not jeopardize the safety level in relation with the operating conditions of the aircraft. "

General reasons :
Much of the money savings comes from the possibility of using acceptable means of compliance cheaper than the present ones, as well as to limit certain actions to the elements involving real safety.
The use of AMC is mentioned in the NPA but not sufficiently precise.

Reason item 1 :
A considerable work has been done in the past in the framework of AMC elaboration for light aircrafts to define certification reference code. This work has led to AMC whose relevance has put already be checked as part of certification. This work must be used. These include, for example, ACJ of the

CS VLA which are quite applicable to the relevant paragraphs of the CS 23 or FAR 23 Amendment 7.
Reason item 2 :
Many accessories, which can be used in an aircraft, are used in various domains proposing standards more stringent than aviation standards. Being able to use them directly into the aircraft only by comparing the aeronautical codes with the technical standards are time and money savings for the manufacturer without affecting the level of safety of the aircraft.
For example, a car safety belt responding to the UTAC, standard which covers the CS VLA or CS 23 requirements would be suitable after comparison of UTAC.
Reason item 3 :
In many countries and for aircrafts under Annex II of the EASA, there exists an obligation to follow the airworthiness of the major parts of the aircraft and with a control by the authority. Also, the safety level of accessories is already validated by the experience. It is therefore unnecessary to create additional costs for certification.
For example the use of a wheel without TSo, operated on more than 100 CNSK aircraft (aircraft kits in France: code imposing an airworthiness following checked by the DGAC), would be a AMC.
Reason item 4 :
In the same way that item 1, some ACs have been made by the FAA based on the experience and validated by experience for the justification of various technical points by safety equivalents. Also, in a pragmatic manner, the safety level can be provided directly using theses AC.
The use of AC 20-146 concerning seats for the crash would be suitable as AMC for the justification of the crash (CS 23.A.562).
Reason Item 5 :
Many simplifying methods are commonly accepted as part of the design of light aircraft for a very long time. These simplifying assumptions (on the load calculation or justification of the parts) have demonstrated their relevance in the context of justification of aircraft under the Annex II of the EASA. While it does not diminish the level of security, the use of its methods, especially when technology is known and classical, would reduce the certification cost.
Example: The justification of a mechanical landing gear by calculation and application of the static loads of the CS is acceptable instead of dynamic tests insofar they are classical steel parts and with a calculation by the method of long beams.
Reason item 6 :
No currently certified light aircraft entirely fulfils the certification code requirements regarding the flight handling qualities. Indeed, and partly because of the low weight of theses aircraft and of their over-powerful motorization (for some), it is always possible to find a slight lateral or longitudinal instability near the stall. Or, another example, aerobatic aircrafts by definition are often unstable laterally, and "requires a particular agility" given on their engine. These non-compliances of handling qualities as defined in the certification specification have never shown to have had a negative influence on the level of aircraft safety.
On the other hand, it is necessary to relate the flight handling qualities of an aircraft with its envelop of operation. Indeed, we can not require the same qualities of a competition singleseater 300hp aircraft piloted by an elite with a two-seater training 80hp aircraft.
Taking into account this issue pragmatically, it is possible to alleviate the constraints for some machines while not penalising the safety level.

Commentaires sur le paragraphe 23.A.903 (AMC) / Comments on paragraph

	23.A.903 (AMC) Proposition : DynAero Ibérica propose que soit ajoutée une AMC 23.A.903 comme suit : "AMC 23.A.903 For the ELA aircrafts, the engine may be type certificated under JAR-E, JAR-22 Subpart H, or FAR Part 33." Raisons : Cette disposition, déjà existante avec les aéronefs certifiés avec la CS VLA, a fait ces preuves. Or les machines ELA seront très proches (masses et puissances similaires). Par ailleurs, les couts d'homologation en CS 22, s/p H sont nettement inferieurs à ceux en CS E. Proposal : DynAero Ibérica proposes to add a AMC 23.A.903 as follows: "AMC 23.A.903 For the ELA aircrafts, the engine may be type certificated under JAR-E, JAR-22 Subpart H, or FAR Part 33." Reasons : This provision, already existing for aircrafts certified under CS VLA, gave its evidence. And the ELA machines will be very close (powers and weights are similar). In addition, the costs of approval under CS 22, s / p H are really below those under CS E. Commentaires sur le paragraphe 23.905 (AMC) / Comments on paragraph 23.905 (AMC) Proposition : DynAero Ibérica propose que soit ajoutée une AMC 23.A.905 comme suit : "AMC 23.A.905 For the ELA aircrafts, the propeller may be type certificated or otherwise approved under JAR-P, JAR-22 Subpart J, or FAR Part 35." Raisons : Cette disposition, déjà existante avec les aéronefs certifiés avec la CS VLA, a fait ces preuves. Or les machines ELA seront très proches (masses et puissances similaires). Par ailleurs, les couts d'homologation en CS 22, s/p J sont nettement inferieurs à ceux en CS P. Proposal : DynAero Ibérica proposes to add a AMC 23.A.905 as follows : "AMC 23.A.905 For the ELA aircrafts, the propeller may be type certificated or otherwise approved under JAR-P, JAR-22 Subpart J, or FAR Part 35." Reasons : This provision, already existing for aircrafts certified under CS VLA, gave its evidence. And the ELA machines will be very close (powers and weights are similar). In addition, the costs of approval under CS 22, s / p J are really below those under CS P.
response	*Partially accepted*

FAR-23 at Amendment 7:
Refer to CRD Part I paragraph (b) 2 criteria for ELA1 and ELA2 Special conditions:
Although called special conditions by the commentator, the points raised are more related to AMC.
Relative to points 1, 3, 4 and 5, the Agency has always the possibility to accept alternative AMC to airworthiness codes than those published. See also reply to comment No 74.
The issue raised in point 2 is covered by the possibility to use parts without a Form 1 under certain conditons for ELA aircraft.
Relative to point 6, equivalent level of safety can be accepted. Deviations from the airworthiness codes can also be accepted (using the 'unless otherwise accepted' provision of Part 21A.17) provided they still comply with the essential requirements. Furthermore in the case of aeroplanes to be used for aerobatic competition, restricted certificate of airworthiness based on specific airworthiness specifications can be issued. Please refer to NPA 2008-06 for further information.
The Agency agrees in substance with the comment but does not see therefore the need to issue the proposed AMC to Part-21.

Engine and propellers:
Refer to CRD Part I paragraph (b) 1 relative to TC and RTC.

comment

284 comment by: *Drive & Fly Luftfahrt GmbH*

Comments on paragraph 21A.16A (AMC)

Proposal :

Drive And Fly proposes to add a AMC 21A.16 A as follows:

"AMC 21A16A
Airworthiness codes for the aircrafts defined in 21A.14 (b) and (c), the FAR 23 amendment 7 (enabled the 14th of September, 1969) is an acceptable airworthiness code."

Reasons :

- *Most aircraft in service today as part of a recreational operation were certified on the basis of the airwortiness code FAR23 Amendment 9.*
- *The code has demonstrated its relevance and gave full satisfaction at the level of flight safety.*
- *The introduction possibility as possible code of this recognized code would achieve the same level of security and greatly simplify the use of AMC for most points unsuited to light aircraft which have actually been introduced after the FAR 23 Amendment 7.*

response

Not accepted

FAR-23 at Amendment 7:
Refer to CRD Part I paragraph (b) 2 criteria for ELA1 and ELA2.

A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Fees and charges p. 12

comment *43* comment by: *John Tempest*

It would seem imperitive for QEs to be able to directly levy fees to enable sufficient income to sustain the business. Further, it would seem imperitive that the fees payable to EASA or the Competent Authority (CA) by the QE be limited to a basic annual approval fee, which should be of the same order as that required for a TC holder for one aircraft type, to cover annual audit requirements, plus a very nominal (vanishingly small) charge per certificate.

For the QE to be financially viable, they must recover their costs while at the same time, minimising costs to the applicant.

In view of the fact that EASA and the CA(s) will delegate considerable responsibility to the QE, and will presumably issue certificates without futher showing, it would be unreasonable for EASA and CA(s) to levy large approval fees on the QE.

response *Noted*

All legal approvals remain issued by the Agency under its fees and charges system. This fees and charges system is considered by stakeholders as being a major hindrance to certification of new aircraft or to certification of changes or repairs to existing aircraft. The fees and charges regulation is adopted by the Commission. The applicant pays the fees to EASA. The contracts between EASA and NAA or qualified entities when they are allocated tasks by EASA contain the financial arrangements between EASA and NAA or QE. Modifying this framework necessitates an in-depth further study.

comment *68* ❖ comment by: *Michael GREINER*

NOTE:
This comment was made against this section of the NPA. This comment and the response are however only reflected once at page 6 of this CRD in order to improve readability.

response *Noted*

comment *93* comment by: *René Fournier*

The level of the fees and charges levied by the Agency or the National Authorities is critical to the dynamism of recreational aviation. They should not reach a level that would risk hampering the competitiveness of the whole sector.

In the case of old aircraft existing in small numbers and no longer in production, it should be borne in mind that continued support of the TC is a non profit activity. If the Agency intends to limit the number of orphan aircraft, it should reduce rather than increase the level of fees perceived on these activities, bearing in mind that some are subject to hourly rate.
In particular, it should be emphasised that the level of the fees that would be requested for the production of parts applicable under a letter of agreement or a POA is too high to reasonably envisage sharing it between a limited number of aircraft owners. With respect to the continued support of TCs, such activity is only possible thanks to the provision foreseen for aircraft of which less than 50 examples are registered worldwide.

response

Noted

All legal approvals remain issued by the Agency under its fees and charges system. This fees and charges system is considered by stakeholders as being a major hindrance to certification of new aircraft or to certification of changes or repairs to existing aircraft. The fees and charges regulation is adopted by the Commission. The applicant pays the fees to EASA. The contracts between EASA and NAA or qualified entities when they are allocated tasks by EASA contain the financial arrangements between EASA and NAA or QE. Modifying this framework necessitates an in-depth further study.

comment

136 comment by: *Fridrich Jan*

Stávající výše poplatků EASA je nepřiměřená pro lehké a sportovní letectví a ve svém důsledku povede k jeho likvidaci.
Navrhuji: přejít na systém který je s úspěchem používán v USA - tedy malou platbou z každé letenky. Takový systém zajistí bezproblémové financování aniž by došlo k znatelnému nárůstu cen letenek z tohoto důvodu.

response

Noted

All legal approvals remain issued by the Agency under its fees and charges system. This fees and charges system is considered by stakeholders as being a major hindrance to certification of new aircraft or to certification of changes or repairs to existing aircraft. The fees and charges regulation is adopted by the Commission. The applicant pays the fees to EASA. The contracts between EASA and NAA or qualified entities when they are allocated tasks by EASA contain the financial arrangements between EASA and NAA or QE. Modifying this framework necessitates an in-depth further study.

comment

153 comment by: *Light Aircraft Association of the Czech Republic*

LAA ČR strongly thinks that if EASA fees and charges will stay as they are it will ruin small companies who are now active in light sport aviation.
Proposal - use the financing based on small fee from airtickets - the same as is used in the USA. Such system will assure financing of EASA system without significant increase of airticket price.

response

Noted

All legal approvals remain issued by the Agency under its fees and charges system. This fees and charges system is considered by stakeholders as being a major hindrance to certification of new aircraft or to certification of changes or repairs to existing aircraft. The fees and charges regulation is adopted by the Commission. The applicant pays the fees to EASA. The contracts between EASA and NAA or qualified entities when they are allocated tasks by EASA contain the financial arrangements between EASA and NAA or QE. Modifying this framework necessitates an in-depth further study.
In its opinion, the Agency will draw the attention of the Commission on the proposal made by the commentator

comment

414 comment by: *CAA CZ*

According to our opinion, there is a need for further study of this issue specified in the NPA and we would like to support the preparation of this study or to achieve an amendment of the system of fees and charges. We consider

this issue as very important. This issue has direct impact on the area of small aircraft manufacturers and procedures for obtaining approvals. An effort to save costs by organisations in order to pay the lower fee than currently requested would affect the procedures followed and would have, in the end, an impact on safety. We have no specific proposal on the possible value of fee under the new concept. However, our interpretation generally is that for the combined DOA/POA approval the fee value will be about the same as for both approvals applications submitted individually, due to the number of personnel and number of hours concerned. Therefore, we do not find this concept administratively and economically simple. In addition, we would like to support further evaluation of the fees and charges system.

response *Noted*

All legal approvals remain issued by the Agency under its fees and charges system. This fees and charges system is considered by stakeholders as being a major hindrance to certification of new aircraft or to certification of changes or repairs to existing aircraft. The fees and charges regulation is adopted by the Commission. The applicant pays the fees to EASA. The contracts between EASA and NAA or qualified entities when they are allocated tasks by EASA contain the financial arrangements between EASA and NAA or QE. Modifying this framework necessitates an in-depth further study.

comment *415* comment by: *JIHLAVAN airplanes s.r.o.*

JIHLAVAN airplanes, s.r.o. strongly thinks that if EASA fees and charges will stay as they are it will ruin small companies who are now active in light sport aviation.

response *Noted*

All legal approvals remain issued by the Agency under its fees and charges system. This fees and charges system is considered by stakeholders as being a major hindrance to certification of new aircraft or to certification of changes or repairs to existing aircraft. The fees and charges regulation is adopted by the Commission. The applicant pays the fees to EASA. The contracts between EASA and NAA or qualified entities when they are allocated tasks by EASA contain the financial arrangements between EASA and NAA or QE. Modifying this framework necessitates an in-depth further study.

comment *436* comment by: *Light Aircraft Association UK*

This will be one of the main areas of contention. The proposals state that to the applicant, the charge will the same wherever in Europe the applicant is based; however, the scale of charges is in Euros and the value of a Euro is not the same across Europe. The value of €500 will be different in the UK (for example) due to exchange rate differences with the Pound, and different in parts of Europe due to different costs of living and salaries. Furthermore, the Qualified Entity must negotiate a separate contract with EASA for the undertaking of work: the costs associated with providing the service to the applicant will be different in different parts of Europe. Overheads will be higher in some countries compared with others. Given that the full scope of the whole ELA package is not yet determined, it is currently impossible to put together a business case to calculate the viability of becoming a Qualified Entity (or indeed a manufacturer). On the other hand, allowing Qualified Entities to charge applicants market rates directly for work might result in the QE cutting corners in a bid to charge lower rates and hence attract business.

This might also have the effect of an applicant applying to a QE that is not the nearest (assuming the applicant doesn't apply directly to EASA): this goes against the stated intention of 'increased proximity' of the approving body to the applicant.

There is no indication as to the costs that will be levied by EASA for setting up a QE and the continued oversight.

response *Noted*

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comment *439* comment by: *P&M Aviation*

The costs of so much per aircraft type approved is prohibitive as it will make older aircraft less attractive to manufacturers to continue to support. What happens when a manufacturer stops supporting an older aircraft?

response *Noted*

All legal approvals remain issued by the Agency under its fees and charges system. This fees and charges system is considered by stakeholders as being a major hindrance to certification of new aircraft or to certification of changes or repairs to existing aircraft. The fees and charges regulation is adopted by the Commission. The applicant pays the fees to EASA. The contracts between EASA and NAA or qualified entities when they are allocated tasks by EASA contain the financial arrangements between EASA and NAA or QE. Modifying this framework necessitates an in-depth further study.

comment *450* comment by: *Rybar Jirka*

Stávající výše poplatků EASA je likvidační pro lehké a sportovní letectví, proto navrhuji:

Vzhledem k rozsahu činnosti AESA je nutné vybírat poplatek od konkrétních cestujících, jejichž bezpečnost EASA především chrání a na něž se při navrhovaných změnách EASA odvolává - je rozhodně spravedlivější vybírat nepatrnou částku několika € od miliónů cestujících, než statisíce € od stovek subjektů. To podle mého názoru zajistí dostatečné prostředky pro činnost EASA a nezpůsobí to likvidaci určitých oblastí všeobecného letectví.

response *Noted*

All legal approvals remain issued by the Agency under its fees and charges system. This fees and charges system is considered by stakeholders as being a major hindrance to certification of new aircraft or to certification of changes or repairs to existing aircraft. The fees and charges regulation is adopted by the Commission. The applicant pays the fees to EASA. The contracts between EASA and NAA or qualified entities when they are allocated tasks by EASA contain the financial arrangements between EASA and NAA or QE. Modifying this

framework necessitates an in-depth further study.

comment

626 comment by: *European Sailplane Manufacturers*

The European sailplane manufacturers still do not consider the fees & charges levied by EASA as fair or feasible.

1. The fees are in the end all based on the assumption that one work hour at EASA is worth 225 Euro. This is simply not justified in a so called industry where hourly rates are at least lower by a factor of three!
2. The fees for certifiacion of products have to be paid annually as long as the certification takes. Thereby EASA is not really inclined to work faster! Experience has shown that the EASA system makes time for certification longer.
3. Certification of engines and propellers is disproportionate high when compared to the fees for a ne aircraft.
4. The fees listed here are correct but it is not mentioned that the application for and the upholding of organisation approvals cost additional money. It is also these fees which make the business case for small manufacturers quite difficult.

response

Noted

All legal approvals remain issued by the Agency under its fees and charges system. This fees and charges system is considered by stakeholders as being a major hindrance to certification of new aircraft or to certification of changes or repairs to existing aircraft. The fees and charges regulation is adopted by the Commission. The applicant pays the fees to EASA. The contracts between EASA and NAA or qualified entities when they are allocated tasks by EASA contain the financial arrangements between EASA and NAA or QE. Modifying this framework necessitates an in-depth further study.

comment

680 ❖ comment by: *Deutscher Aero Club e.V. (DAeC)*

The Deutscher Aero Club e.V. welcomes the envisaged alleviations to the certification process in order to revitalise the light aviation market. However unless the fees & charges regulation is revised as well the result will not be lasting.

response

Noted

All legal approvals remain issued by the Agency under its fees and charges system. This fees and charges system is considered by stakeholders as being a major hindrance to certification of new aircraft or to certification of changes or repairs to existing aircraft. The fees and charges regulation is adopted by the Commission. The applicant pays the fees to EASA. The contracts between EASA and NAA or qualified entities when they are allocated tasks by EASA contain the financial arrangements between EASA and NAA or QE. Modifying this framework necessitates an in-depth further study.

comment

688 comment by: *Evektor*

EVEKTOR position: current level of fees and charges isn't acceptable for non-commertial operation. 6000€ per year of on-going certification has no ekvivalent round the world and therefore current fees and charges has the discrimination function and don't contribute to competetiveness of european producer.

Fees and charges must reflect price of product and **above all** must corespond to certification prices of others key countries outside to EU.

response *Noted*

All legal approvals remain issued by the Agency under its fees and charges system. This fees and charges system is considered by stakeholders as being a major hindrance to certification of new aircraft or to certification of changes or repairs to existing aircraft. The fees and charges regulation is adopted by the Commission. The applicant pays the fees to EASA. The contracts between EASA and NAA or qualified entities when they are allocated tasks by EASA contain the financial arrangements between EASA and NAA or QE. Modifying this framework necessitates an in-depth further study.

comment *711* comment by: *Europe Air Sports, VP*

EAS strongly thinks that if EASA fees and charges will stay as they are it will have a strong negative impact on small companies who are now active in light sport aviation.
Proposal
- use the financing based on small fee from airtickets - the same as is used in the USA. Such system will assure financing of EASA systém without significant increase of airticket price.

response *Noted*

All legal approvals remain issued by the Agency under its fees and charges system. This fees and charges system is considered by stakeholders as being a major hindrance to certification of new aircraft or to certification of changes or repairs to existing aircraft. The fees and charges regulation is adopted by the Commission. The applicant pays the fees to EASA. The contracts between EASA and NAA or qualified entities when they are allocated tasks by EASA contain the financial arrangements between EASA and NAA or QE. Modifying this framework necessitate an in-depth further study.
In its opinion, the Agency will draw the attention of the Commission on the proposal made by the commentator.

A. Explanatory Note - V. Regulatory Impact Assessment - 1. Purpose and intended effect p. 12-13

comment *269* ❖ comment by: *Gorden WIEGELS*

As is widely known, current high performance aircraft within Annex II are on the limits of the definitions under Annex. As is also commonly known, there are a huge number of active pilots and new aircraft under Annex II.

For the success of ELA it is mandatory, that there is a sensible and easy (in sense of effort, time and cost) way to upgrade existing aircraft of Annex II to be used under ELA concept. This applies to both, initial airworthiness and licensing. Licensing will be commented separately in answer to the licensing NPA. Excluding these pilots / owners from the new category will be overcritical for the the success of the new system and cannot be justified with any safety mean.

Regarding Initial Airworthiness the proposal is to use a similar mechanism like done in USA when introducing the LSA category. There a limited timeframe

was available, where each aircraft owner had the possibility by simple paperwork to get his/her aircraft certified as "experimental" LSA with certain operational limitations to the new category. There was no new checking of compliance or such, the individual aircraft was accepted on the basis of its existing operational experience. For most aircraft owners this is fully sufficient.

Secondly, it is proposed to also offer for factory produced Annex II aircraft already in service to enhance the scope of usability by showing compliance on the basis of the certification code the aircraft is already certified to, and upgrading it through the manufacturing company to the ELA category, without operational limitations. An example would be that an Ultralight, currently certified under LTF-UL (Germany), or Section S (UK) or ?!? (Czech) to become an LSA aircraft, still following LTF-UL certification code, but with enhanced takeoff mass.

response

Noted

If the manufacturer of an aircraft originally classified in Annex II wishes to increase the Maximum Take-Off Mass of this aircraft beyond the limit of Annex II, it will have to comply with the requirements applicable to ELA.

comment

376 ❖ comment by: *O. Reinhardt / Flightdesign*

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response

Noted

If the manufacturer of an aircraft originally classified in Annex II wishes to increase the Maximum Take-Off Mass of this aircraft beyond the limit of Annex II, it will have to comply with the requirements applicable to ELA.

comment 396 comment by: *Thomas Wendt*

Page 12 - A. Explanatory Note - V. Regulatory Impact Assessment - 1. Purpose and intended effect

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response *Noted*

If the manufacturer of an aircraft originally classified in Annex II wishes to increase the Maximum Take-Off Mass of this aircraft beyond the limit of Annex II, it will have to comply with the requirements applicable to ELA.

comment 428 comment by: *Flight Design GmbH Matthias Betsch CEO*

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response *Noted*

If the manufacturer of an aircraft originally classified in Annex II wishes to increase the Maximum Take-Off Mass of this aircraft beyond the limit of Annex II, it will have to comply with the requirements applicable to ELA.

comment *480* comment by: *Tegelbeckers*

Page 12 - A. Explanatory Note - V. Regulatory Impact Assessment - 1. Purpose and intended effect

response *Noted*

There is no text in the database.

comment *653* comment by: *Martin Josef Warken*

Comment 20
Page 5/6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Overview of the proposals included in this NPA

Page 6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 1

Page 7 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 2

Page 26/27 B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".
This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.

response *Accepted*

Thank you for your comment.

NPA is the reference. Presentations have now been corrected.

comment *747* comment by: *Oliver*

As is widely known, current high performance aircraft within Annex II are on the limits of the definitions under Annex. As is also commonly known, there are a huge number of active pilots and new aircraft under Annex II.

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response *Noted*

If the manufacturer of an aircraft originally classified in Annex II wishes to increase the Maximum Take-Off Mass of this aircraft beyond the limit of Annex II, it will have to comply with the requirements applicable to ELA.

comment *775* comment by: *Air Marugan*

Comment 21

As is widely known, current high performance aircraft within Annex II are on the limits of the definitions under Annex. As is also commonly known, there are a huge number of active pilots and new aircraft under Annex II.

For the success of ELA it is mandatory, that there is a sensible and easy (in sense of effort, time and cost) way to upgrade existing aircraft of Annex II to be used under ELA concept. This applies to both, initial airworthiness and licensing. Licensing will be commented separately in answer to the licensing NPA. Excluding these pilots / owners from the new category will be overcritical for the the success of the new system and cannot be justified with any safety mean.

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response

Noted

If the manufacturer of an aircraft originally classified in Annex II wishes to increase the Maximum Take-Off Mass of this aircraft beyond the limit of Annex II, it will have to comply with the requirements applicable to ELA.

A. Explanatory Note - V. Regulatory Impact Assessment - 3. Sectors concerned p. 13

comment

440 comment by: *P&M Aviation*

The list of sectors concerned does not currently include European Manufacturers of Microlight Aircraft, surely the ELA1 or CS-LSA categories also apply to them or are Annex II aircraft definitely staying as they are, or is there some future proposal for these?

Most of the European manufacturers who export LSA aircraft to the USA also supply a slightly cut down version for the lighter European Microlight category each operating and manufactured under its own National rules is this still going to be the case?

response

Noted

Such manufacturers would only be affected if they produce ELA aircraft: for that reason they have not been listed as affected.

A. Explanatory Note - V. Regulatory Impact Assessment - 4. Impacts p. 13-16

comment

32 comment by: *FAA*

As identified in these two paragraphs, the ELA concept for the issuance of Type Certificates (TC) and Standard Certificates of Airworthiness (C of A) is broader in scope than the FAA rule that does not provide for TC or C of A. This difference in scope, if it remains unchanged, will require additional coordination between EASA and the FAA on acceptance of these types of aircraft for import/export between the two authorities. It is recommended that EASA and the FAA begin coordination of import/export and validation issues for ELA and LSA aircraft as soon as possible. This coordination may involve changes to working agreements or bilateral agreements.

response | *Accepted*

Refer to CRD Part I paragraph (b) 10 relative to harmonisation.

comment | *68* ❖ comment by: *Michael GREINER*

NOTE:
This comment was made against this section of the NPA. This comment and the response are however only reflected once at page 6 of this CRD in order to improve readability.

response | *Noted*

comment | *269* ❖ comment by: *Gorden WIEGELS*

As is widely known, current high performance aircraft within Annex II are on the limits of the definitions under Annex. As is also commonly known, there are a huge number of active pilots and new aircraft under Annex II.

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response | *Noted*

If the manufacturer of an aircraft originally classified in Annex II wishes to increase the Maximum Take-Off Mass of this aircraft beyond the limit of Annex II, it will have to comply with the requirements applicable to ELA.

comment | *282* comment by: *Klaus Erger*

Comment 21
Page 4 - A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Introduction

Page 12 - A. Explanatory Note - V. Regulatory Impact Assessment - 1. Purpose and intended effect

Page 14 - A. Explanatory Note - V. Regulatory Impact Assessment - 4. Impacts (Economics)

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For the success of ELA it is mandatory, that there is a sensible and easy (in sense of effort, time and cost) way to upgrade existing aircraft of Annex II to be used under ELA concept. This applies to both, initial airworthiness and licensing. Licensing will be commented separately in answer to the licensing NPA. Excluding these pilots / owners from the new category will be overcritical for the the success of the new system and cannot be justified with any safety mean.
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response

Noted

If the manufacturer of an aircraft originally classified in Annex II wishes to increase the Maximum Take-Off Mass of this aircraft beyond the limit of Annex II, it will have to comply with the requirements applicable to ELA.

comment

307 comment by: *Karg*

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compliance or such, the individual aircraft was accepted on the basis of its existing operational experience. For most aircraft owners this is fully sufficient.

Secondly, it is proposed to also offer for factory produced Annex II aircraft already in service to enhance the scope of usability by showing compliance on the basis of the certification code the aircraft is already certified to, and upgrading it through the manufacturing company to the ELA category, without operational limitations. An example would be that an Ultralight, currently certified under LTF-UL (Germany), or Section S (UK) or (Czech), could become an LSA aircraft still following LTF-UL certification code, but with enhanced takeoff mass.

response *Noted*

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comment *330* comment by: *TECNAM*

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response *Noted*

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comment *345* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

Impact on safety:
The NPA states on § V. 4. that on the available evidences, the heavier regulation of the regulated sector does not appear to have resulted in any safety benefit.

Comments:
The incomplete review of accident shown in appendix I involved 17 fatalities (entered in the file with all FOCA comments attached to the title page). This shall not be considered as negligible. From the information available, it can be derived that most of those acci-dents may have been avoided and are unlikely to occur in the regulated sector. The objective of the ELA process shall be to avoid the deficiencies identified in the microlight processes.

response *Noted*

The safety concerns are known, the need to proceed with caution is agreed; however, we believe that what we are proposing preservation of the safety level.
Indeed we keep the need for identified design standards (CS), compliance will be found by EASA. As a minimum, the capability for design will be evaluated by approving the certification programme by EASA. These findings and evaluation will be based on technical visas issued either by accredited NAA or QE that comply with the criteria laid down in Annex V to Regulation 216/2008.

comment *376* ❖ comment by: *O. Reinhardt / Flightdesign*

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response *Noted*

If the manufacturer of an aircraft originally classified in Annex II wishes to increase the Maximum Take-Off Mass of this aircraft beyond the limit of Annex II, it will have to comply with the requirements applicable to ELA.

comment

397 comment by: *Thomas Wendt*

Page 14 - A. Explanatory Note - V. Regulatory Impact Assessment - 4. Impacts (Economics)

As is widely known, current high performance aircraft within Annex II are on the limits of the definitions under Annex. As is also commonly known, there are a huge number of active pilots and new aircraft under Annex II.

For the success of ELA it is mandatory, that there is a sensible and easy (in sense of effort, time and cost) way to upgrade existing aircraft of Annex II to be used under ELA concept. This applies to both, initial airworthiness and licensing. Licensing will be commented separately in answer to the licensing NPA. Excluding these pilots / owners from the new category will be overcritical for the the success of the new system and cannot be justified with any safety mean.

Regarding Initial Airworthiness the proposal is to use a similar mechanism like done in USA when introducing the LSA category. There a limited timeframe was available, where each aircraft owner had the possibility by simple paperwork to get his/her aircraft certified as "experimental" LSA with certain operational limitations to the new category. There was no new checking of compliance or such, the individual aircraft was accepted on the basis of its existing operational experience. For most aircraft owners this is fully sufficient.

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response

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comment

398 ❖ comment by: *Flight Design GmbH Matthias Betsch CEO*

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response *Noted*

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comment *464* comment by: *www.fascination-pilots.de*

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response *Noted*

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comment

481 comment by: *Tegelbeckers*

Page 14 - A. Explanatory Note - V. Regulatory Impact Assessment - 4. Impacts (Economics)
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response

Noted

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comment

498 comment by: *light-wings Oliver Liedmann*

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response *Noted*

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comment *499* comment by: *light-wings Oliver Liedmann*

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response *Noted*

If the manufacturer of an aircraft originally classified in Annex II wishes to increase the Maximum Take-Off Mass of this aircraft beyond the limit of Annex II, it will have to comply with the requirements applicable to ELA.

comment *547* comment by: *UK CAA*

Subject/Topic **Level of safety**

NPA Section / Page	**Comment**
Part A - Section V, 4, "Impacts"(a) (i) Safety	This section of the NPA/Opinion argues that design standards and the regulation of the design process can be relaxed (or in some cases removed) without a significant negative impact on safety. It is stated that a "qualitative comparison of safety records" indicates that the heavier regulation of the regulated sector compared with the unregulated sector "does not appear to have resulted in any safety benefit". This conclusion has not been justified by any firm evidence presented in the NPA. Whilst reliable accident data is difficult to obtain for general aviation, some

information is available:

In 2006 a review was carried out in the UK by a group comprising GA representatives and CAA-UK staff. This was published as
"The Regulatory Review of General Aviation In the United Kingdom".
It is available via the CAA website at:
http://www.caa.co.uk/docs/33/RegReview.pdf
The report presents a statistical analysis (with 95% confidence level) for the UK GA fleet for a period of 10 years. It gives the following comparison of Fatal Accident Rates per 100,000 hours -
Full-Regulation - 1.4
Devolved Regulation - 2.3
Self-Regulation - 2.6

The report also compares the fatal accident rates for microlights in the UK and another EU member state. (The latter microlights are subject to a scheme of self-declaration of compliance, whereas UK microlights are Type Approved through compliance with requirements derived from JAR 22 and VLA, and are designed and manufactured by organisations holding a simplified, combined DOA/POA).
The Fatal Accident Rate quoted for microlights in the EU member state is 10.75 per 100,000 hours. The equivalent rate for UK microlights is 4 per 100,000 hours.

The report also provides data from the Australian Transport Safety Board comparing their unregulated microlights with the regulated light aircraft fleet. The fatal accident rates are:
Light Aeroplanes (regulated) - 1.0 per 100,000 hours
Microlights (unregulated) - 5.1 per 100,000 hours.

Thus there is statistical evidence of a correlation between level of regulation and fatal accident rate.

It is true that the proportion of these accidents that are attributed to failures of design is low, but it may be argued that this is evidence that the existing design standards are effective in preventing fatal accidents and so should not be relaxed. Also, there have been cases in the past where a series of accidents that originally were attributed to pilot error, were later realised to be due to hazardous characteristics of the aircraft arising from deficiencies in the design.

The conclusion that must be drawn from the published data is that there is a need to be cautious in reducing the level of regulation of design and manufacture. Otherwise, reduced regulation may result in a higher fatal accident rate. The text of the opinion should be revised to reflect this.

It is suggested that the text of the current paragraph "4.a.i - Safety" should be replaced by the following:

"It is difficult to predict the effect on safety of reducing the level of regulation of airworthiness. This is because there are no European-wide statistics available; mainly due to the lack of common standards for reporting. Some published data (comparing fleets that are subject to different levels of regulation) does indicate that the fatal accident rate should be expected to increase if the level of regulation is reduced. It is noted that most reported accidents are not attributed to failings of design, but it cannot be determined whether this means that the design requirements are unnecessarily stringent, or that they have been very effective and so are essential to preventing an increase in the fatal accident rate. This indicates the need for caution and to preserve at least the principles of the current system, namely: that organisations must hold approvals for the activities that they undertake, the design standards for a product must be defined, and compliance with those requirements assured.

Option 1.....etc "

response *Noted*

The safety concerns are known, the need to proceed with caution is agreed; however, we believe that what we are proposing preservation of the safety level.
Indeed we keep the need for identified design standards (CS), compliance will be found by EASA. As a minimum, the capability for design will be evaluated by approving the certification programme by EASA. These findings and evaluation will be based on technical visas issued either by accredited NAA or QE that comply with the criteria laid down in Annex V to Regulation 216/2008.

comment *548* comment by: *UK CAA*

Part A - Section V, 4, "Impacts" (a) (i) Safety

The Agency points out that effective rulemaking for light aircraft is made difficult by the scarcity of objective accident data. There is the opportunity now to address the availability of objective statistical data for the future by introducing requirements for the effective reporting of accidents and incidents for light aircraft, including ELA, possibly as part of this Opinion. Also, it would accord with the principles of good regulatory practice to ensure that accident data is gathered so that the effects of the implementation of this NPA can be analysed and the need for future amendments assessed.

Question for the Agency
Does the Agency intend to include ELA as a specific item in its annual reviews of aviation safety, so that any significant change in fatal accident rates can be identified and addressed?

It is suggested that the Opinion should include a commitment to introduce a compulsory reporting system for recreational aviation so that the future trends in fatal

accidents can be monitored.

response *Accepted*

The Agency wishes to point out that the obligation to report is already included in Part M (paragraph MA.202). The obligation to analyse occurences is included in Part 21 for TC holders. Therefore, the Agency believes that there is no need to include a compulsory reporting system for recreational aviation in the Opinion.
The annual safety review includes already data for aircraft below 2 250 kg. The Agency intends to further develop this review to cover ELA and monitor the trends.

comment *550* comment by: *UK CAA*

Section A, V, 4 "Impacts", "Safety"

Under Section A, V, 4 "Impacts", "Safety", it is claimed that the...
"safety levels intended are consistent with the expectations of the stakeholders who understand that recreational aviation is riskier than commercial aviation".

If the aircraft are to be allowed to be used for commercial purposes this argument is not valid and should be removed from the opinion.
(It is already proposed separately that this text be replaced).

The remit of MDM.032 is "Regulation of aircraft, other than complex motor powered aircraft, used in non-commercial activities"; and the proposals of this NPA have been derived from the assertion that "the stakeholders who understand that recreational aviation is riskier than commercial aviation". It follows that the ELA 1 and ELA 2 aircraft should be prohibited from commercial operation.

It is noted that the US LSA system prohibits commercial use except for pilot training and glider towing. It can be deduced that the reason for allowing flying training is that this contributes to safety of operation, and that the reason for allowing glider towing is that gliding is a recreational activity.

It is recommended that the Opinion applies the same restrictions on commercial operations to all ELA aircraft as the US applies to LSA.

response *Partially accepted*

The inconsistencies pointed out by the commentator are accepted. The Agency took the opportunity of this comment to review thoroughly the need to put the limitations described in the comment.
The Agency find that there is a significant difference between ELA and the FAA LSA system: the FAA does not evaluate the design of LSA, their system being basically self-declaration. On the contrary, the Agency applies classical principles to ELA: a TC/ RTC is issued, compliance with well identified standards is found and the capability of the designer is assessed (the minimum is the approval of the certification programme).

In addition, following comments received, the proposal relative to part that do not need a Form 1 has been revised and is now less ambitious. One of the objections to the system included in the NPA was the possibility that aircraft move from non-commercial to commercial.
Finally the scope of ELA is different from LSA. In the case of ELA 2 aircraft, the only change introduced was the move from DOA to AP-DOA.
Based on the above, the Agency believes that there is no need to introduce the same limitation as in LSA.

comment *560* comment by: *UK CAA*

Subject/Topic	**Environmental Impact and Standards**
NPA Section/Page	**Comment**
Part A - Section V, 4, Impacts (a) (iii) Environmental; Page 15	As noted in the paragraph (iii) "Environmental", the intent of the NPA is to introduce a system that will stimulate increased production and operation of aircraft. Assuming that this proposal is successful in that respect, then, even with improved technology, the net environmental effect should be expected to be negative. **Question** The NPA does not appear to address environmental certification - specifically, Noise and Emissions. What are the Agency's intentions in these respects?

response *Noted*

The environmental issues in general are covered by the NPA 2008-15. Concerns as expressed by the commentator will be addressed in that context.

comment *655* comment by: *Martin Josef Warken*

Comment 20
Page 5/6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Overview of the proposals included in this NPA

Page 6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 1

Page 7 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 2

Page 26/27 B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".
This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.

response *Accepted*

The NPA is correct and the Agency apologises for the mistake in the presentation.

comment

662 comment by: *DGAC France*

1a. COMMENT TO :

- ü **Explanatory Note**

1b. AFFECTED PARAGRAPH :

RIA V. 4.vi

2. COMMENT:

Ce paragraphe mentionne la possibilité de valider des LSA étrangers en vue de leur importation, mais selon un mécanisme différent des procédures habituelles telles que les EASA-FAA TVP. La DGAC France souhaite connaître le plus tôt possible quelles seront ces procédures de validation et recommande d'inscrire ce sujet au programme de travail de l'AESA.

Courtesy translation:
This paragraph mentions the opportunity for the validation and import of foreign LSA, but according to procedures different from those usually used in validation, such as EASA FAA TVP. DGAC France is interested to know as soon as possible the validation procedures for ELA certification in foreign countries such as USA. DGAC recommends adding this subject in the EASA working programme.

response

Accepted

Refer to CRD Part I paragraph (b) 10 relative to harmonisation.

comment

721 comment by: *procomposite*

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certified under LTF-UL (Germany), or Section S (UK) or UL-2 (Czech) or other equivalent codes become an LSA aircraft, still following original certification code, but with enhanced takeoff mass.

response

Noted

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comment

748 comment by: *Oliver*

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response

Noted

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comment

776 comment by: *Air Marugan*

Comment 21
4. Impacts (Economics)

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response

Noted

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A. Explanatory Note - V. Regulatory Impact Assessment - 5. Summary and Final Assessment p. 16

comment *223* comment by: *Aero-Club of Switzerland*

The Aero-Club of Switzerland also favours Option 2.

response

Noted

The Agency thanks the commentator for their support.

comment *563* comment by: *UK CAA*

Subject/Topic	**Equity and Fairness Issues**
NPA Section/Page	**Comment**
Part A - Section V, 4, Impacts (b) Page 16	The intended changes to Part 21 Subparts K, L and M appear to be proposing that various release, maintenance and repair privileges are granted without requiring compliance with Part M, 145 and/or 66, as is currently required for other holders of these privileges. This may be unfair to the holders of Part M and 145 approvals and to the holders of Part 66 licences. To avoid this further comments suggest that the appropriate requirements are imposed.

	The Opinion should address the potential "equity and fairness" implications of the proposed ELA process on the holders of existing approvals.
response	*Not accepted* Refer to CRD Part I paragraph (b) 5 relative to combined POA/DOA.

A. EXPLANATORY NOTE - Attachment 1 - Background p. 17-19

comment	*17* comment by: *John DAVIES* Question 3 Using MTOM as a limiting value for the initial airworthiness of hot air balloons is difficult as many of the major components (e.g. burners and gas cylinders) can be interchanged between the smallest and the largest envelope. Without complex record keeping and placard systems it will be impossible to track discrete components. ELA 1 and 2 will create similar problems in the maintnenance world.
response	*Noted* This material was provided for background information purposes. MTOM is not used anymore for balloons and airship in ELA.

comment	*27* comment by: *FFVV* On behalf of FFVV - comments Classification of airplanes based on weight limit can be understood in regard of stucture and energy in relation with airplanes performances, however, "heavy" sailplanes(up to 850kg) are always non complex airplanes compared with other aircrafts. This should be taken in account for intitial airworhiness requirement, and of course for continuous airworthiness.
response	*Noted* This material was provided for background information purposes. The ELA1 criteria has now been extended to cover such sailplanes.

comment	*186* comment by: *Ingmar Hedblom* Is is stated that the Agency continues to support the introduction of Assessment bodies... and that this could be the subject of a future NPA. Is is assumed that an assessment body is the same as the qualified entity now introduced in the basic regulation and in NPA 2008-07.
response	*Not accepted* An assessment body can issue a legally valid certificate or approval when a qualified entity can only perform technical tasks.

comment	*355* comment by: *British Gliding Association* **Question 3 on options for initial certification** The BGA prefers Option 3 Industry monitoring with self declaration. We further believe that the provisions for one man DOA and DER's need revisiting

with a view to liberalising them for ELA class Sport aircraft.

response *Noted*

This option has not been retained in this NPA and in the corresponding Opinion. It may be considered in the task BR.010 intended to start mid 2010 and that should:

1. Propose the necessary modifications to the Basic Regulation and to EASA Implementing Rules to achieve an adapted level of regulation for ELA1 for airworthiness, maintenance, operations and licensing.
2. Harmonise the above with other authorities.
3. Improve the approach to orphan aircraft.
4. Review the essential requirements for airworthiness to avoid any unwanted effects on small aircraft.
5. Propose that a Type Certificate for engine and propellers is not needed for some ELA aircraft.
6. Ensure that self-sustained powered sailplanes equipped with a turbojet are non-complex aircraft.

comment *556* comment by: *UK CAA*

Part A - Attachment 1, Background, Attachment 2, Attachment 3 Pages 18,19,20 and 23

Establishment and notification of the TC basis

In the ELA 1, "Who does what" table in Attachment 2, it is not clear which single legal entity is responsible for managing the compilation and agreement of the Certification Basis.

It is stated that:

the certification basis is "established" by the DOA;
Special Conditions are consulted on by EASA;
the response to the consultation (CRD) is provided by the NAA/QE;
the CRD is published by EASA;
the certification basis is agreed by the NAA/QE - "in view of approval of certification plan"
the certification plan is agreed by EASA.

This implies that the task of defining the precise Type Certification basis is to be passed around between at least three different bodies. Who will be responsible for the management of the complete task?

In particular, it is not understood what is meant by "in view of approval of certification plan". What does this actually mean?

According to Article 20 of Regulation 216/2008 the Agency must establish and notify the Type Certification Basis; - which is what is clearly shown in the table for ELA 2. Why is ELA1 not simply the same as ELA 2 in this respect?

Proposal
ELA 1 introduces additional complexity and lack of clarity for little benefit, particularly when the issues that arise from not having a DOA/APDOA (above) are considered. It is

	suggested that the ELA 1 process should be the same as for ELA2; (or ELA2 should be re-named ELA, and ELA1 deleted).
response	*Noted* Please see CRD Part I paragraph b(6).

comment	*616* comment by: *Peter VON BURG* The agency claims to envisage a solution close to Option 3 for aircrafts below 1000 kg but the proposed solution does not fullfill this promise. The main difference, the introduction of the concept of self-certification for aircrafts below 750 kg, has been removed.
response	*Noted* This option has not been retained in this NPA and in the corresponding Opinion. It may be considered in the task BR.010 intended to start mid 2010 and that should: 1. Propose the necessary modifications to the Basic Regulation and to EASA Implementing Rules to achieve an adapted level of regulation for ELA1 for airworthiness, maintenance, operations and licensing. 2. Harmonise the above with other authorities. 3. Improve the approach to orphan aircraft. 4. Review the essential requirements for airworthiness to avoid any unwanted effects on small aircraft. 5. Propose that a Type Certificate for engine and propellers is not needed for some ELA aircraft. 6. Ensure that self-sustained powered sailplanes equipped with a turbojet are non-complex aircraft.

comment	*691* comment by: *Evektor* EVEKTOR position: *...aircraft with a Maximum Take-Off Mass below 750 kg....* 3 bullet- **Body issuing TC:** if the design capability is checked by an Assesment Body issuing the TC could be assured by Assesment Body. 11 bullet- **...issuing AD**- Assesment Body could be better option, Assesment Body should have more safety information.
response	*Not accepted* The NPA and the corresponding Opinion do not envisage the introduction of assessment bodies.

A. EXPLANATORY NOTE - Attachment 2 - Who does what - Initial and Continued Airworthiness - ELA 1 p. 20-22

comment *68* ❖ comment by: *Michael GREINER*

NOTE:
This comment was made against this section of the NPA. This comment and the response are however only reflected once at page 6 of this CRD in order to improve readability.

response *Noted*

comment *73* comment by: *PC-Aero*

Attachent 2, ELA1 , Initial and Continuous Airworthiness.

Propose to change approval of certification plan by QE not EASA. An EASA approval will increase certification costs. At least 3 specialists (flight, structure, systems) will be involved. This will be not less then 20 hours of work for EASA, finaly costing about 5000 EUR. For small manufacturer (LSA case) this is not less. QE has the competence to approve the certification plan. In any case is not acceptable EASA to approve the certification plan for the LSA subclass.

response *Not accepted*

The approval of the certification plan by EASA is consistent with EASA responsibilities. It ensures standardisation and equal treatment between projects.

comment *111* comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high, that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As a fact, reducing the hurdles leads to a much more efficient market self control, than could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries, where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II), it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Noted*

Proposal 1:
QE may be used by EASA to do technical tasks in relation with DOA approval and by NAA to do technical tasks in relation with POA.
QE dealing with design will be accredited by EASA, so consistency should be achieved. QE dealing with production will be accredited by NAA. However, the way these accreditations are done will be checked by EASA through the production standardisation work.
Proposal 2: A pan-European QE dealing with design issues will be approved by EASA. The same QE dealing also with production can only be approved by EASA if the affected Member States agree to it.
However, the policy to use QE has not been yet adopted by the EASA Management Board.

comment *112* comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.*

Negative. The proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, which we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart J. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, as long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products coming within ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Not accepted*

The minimum requirement for capability for design is the approval of the certification plan. Therefore no DOA is mandatory. However a DOA is necessary to obtain privileges.
Self declartion has not been accepted in this NPA and in the corresponding opinion.

comment *113* comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.*

No approvals, related to a TC for CS-LSA. After issueing a "special airworthiness certificate (SAC)" for initial airworthiness, all requirements have strictly to be reduced to the analogue requirements within the framework of FAA-LSA. If this is not respected, CS-LSA will never be animated. Instead, we will have an equivalent to the already existing VLA category, nobody wants and nobody needs.

Validation of third country TC has to be supplemented by validation of third country Special Airworthiness Certificate (SAC) according to FAA-LSA.

response

Noted

In accordance with the Basic Regulation, an aircraft must obtain a type certificate or a restricted type certificate. The task BR.010 will study other possibilities but they will require a change to the Basic Regulation.

comment

171 comment by: *Alexander Eich*

Comments 1 and 2 apply here as well - link same comment to this position.

response

Noted

See reply to comment No 166.

comment

210 comment by: *Walter Gessky*

Attachment 2

Comments to Attachment 2:

- 1) For ELA 1 no DO must be available. Instead of DOA the word applicant should be used.

- 2) Certification: Proposal for selecting QE or NAA:

Change the text:
~~Proposal for~~ **Allocation of task**, selecting QE or NAA:

The intent is to allow the Design Organisation to ~~select a~~ proposed **to** EASA a QE or NAA from a list of **NAA/**QE approved by EASA.
Comment:
This has to be changed, because allocation of task by EASA according the allocation procedures. Contract between EASA and NAA/QE, EU outsourcing regulations has to be taken into consideration. Standardized NAA`s are still available and ready to do the task.

In all other places where only QE are mentioned NAA`s has to be added. NAA`s could be involved in the competition with QE.

- 3) Certification: Approval of certification plan:

Change text:
Purpose is demonstration of capability for the designer: this activity will also define involvement of EASA/QE **or NAA**. Involvement reduced in case the designer has opted for DOA.

- 4) Editorial, All references to Article 15 of Regulation 1592/2003 should be changed to Art 20 of regulation 216/2008
- 5) Validation of third country TC

Proposal for selecting QE or NAA
Certification: Proposal for selecting QE or NAA:
Change the text:
~~Proposal for~~ **Allocation of task**, selecting NAA:

The intent is to allow the ~~Design Organisation~~ to ~~select a~~ proposed **to** EASA a QE or NAA from a list of **NAA/**QE approved by EASA.
Comment:
This has to be changed, because allocation of task by EASA according the allocation procedures. Contract between EASA and NAA/QE, EU outsourcing

regulations has to be taken into consideration. Standardized NAA`s are still available and ready to do the task.
In addition, third country TC holder might not have a design organization. Use applicant instead of design organization. Third country NAA have to be involved based on the bilateral agreements. This is not reflected in the list.
Validation tasks should be only allocated to NAA`s.

•6) Approval of minor changes and repairs based on a CS:
It should be noted that minor changes and repairs based on a CS does not require a separate approval

response *Noted*

Please see CRD Part I paragraph b(6).

comment *235* ❖ comment by: *Flight Design GmbH Matthias Betsch CEO*

negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a).

In addition to this, it must be ensured that a common level is achieved for applicants throughout all the EASA member states. This is mostly the issue from side of the QE´s, when they are approved and supervised by the Authority solely. Involvement of the NAA´s because of varying capabilities in practice shows that this is not the case and this will lead to different safety levels and unfair competition . This problem can be overcome by a Pan European QE. It is not the task of the EASA, or this NPA and comments, to initiate such a Pan European QE, but the effect and usage, when it comes to existence, must be defined.

Proposal 2: Pan-European QE´s by their pan European nature must be appointed by the Agency. In case the applicant selects the Pan- European QE, combined DOA/POA applications will be automatically dealt with by the Agency, and not through CA´s or NAA´s.

response *Partially accepted*

Please see CRD Part I paragraph b(6).

comment *242* comment by: *Ronald MEYER*

Comment 3
Page 22 A. EXPLANATORY NOTE - Attachment 2 - Who does what - Initial and Continued Airworthiness - ELA 1 - Organisational Approval

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high, that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level

of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As a fact, reducing the hurdles leads to a much more efficient market self control, than could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries, where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II), it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Noted

Proposal 1:
QE may be used by EASA to do technical tasks in relation with DOA approval and by NAA to do technical tasks in relation with POA.
QE dealing with design will be accredited by EASA, so consistency should be achieved. QE dealing with production will be accredited by NAA. However, the way these accreditations are done will be checked by EASA through the production standardisation work.
Proposal 2: A pan-European QE dealing with design issues will be approved by EASA. The same QE dealing also with production can only be approved by EASA if the affected Member States agree to it.
However, the policy to use QE has not been yet adopted by the EASA Management Board.

comment

255 ❖ comment by: *Gorden WIEGELS*

negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a).

In addition to this, it must be ensured that a common level is achieved for applicants throughout all the EASA member states. This is mostly the issue from side of the QE´s, when they are approved and supervised by the Authority solely. Involvement of the NAA´s because of varying capabilities in practice shows that this is not the case and this will lead to different safety levels and unfair competition . This problem can be overcome by a Pan European QE. It is not the task of the EASA, or this NPA and comments, to initiate such a Pan European QE, but the effect and usage, when it comes to existence, must be defined.

Proposal 2: Pan-European QE´s by their pan European nature must be appointed by the Agency. In case the applicant selects the Pan- European QE, combined DOA/POA applications will be automatically dealt with by the Agency, and not through CA´s or NAA´s.

response

Partially accepted

Please see CRD Part I paragraph b(6).

comment	*256* ❖ comment by: *Gorden WIEGELS* Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft. There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control. This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing. In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.
response	*Partially accepted* Please see CRD Part I paragraph b(6).

comment	*261* comment by: *Gorden WIEGELS* Accreditation of Design Organizations must be under Agency, not NAA, already now.
response	*Not accepted* DOA are issued by the Agency.Concerning POA, please see reply to comment No 235.

comment	*276* comment by: *Klaus Erger* **Comment 7** Page 22 A. EXPLANATORY NOTE - Attachment 2 - Who does what - Initial and Continued Airworthiness - ELA 1 - Organisational Approval Comments 1 and 2 apply here as well - link same comment to this position. **Comment 8** Page 22 A. EXPLANATORY NOTE - Attachment 2 - Who does what - Initial and Continued Airworthiness - ELA 1 - Accredition and Surveillance Accreditation of Design Organizations must be under Agency, not NAA, already now. Comments to POA also have effect on last line here.
response	*Not accepted* DOA are issued by the Agency. Concerning POA, please see reply to comment No 235.

comment	*293* comment by: *Karg* Negative - the proposal as presented here is in the suitable direction, but not reaching far enough. Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a). In addition to this, it must be ensured that a common level is achieved for applicants throughout all the EASA member states. This is mostly the issue from side of the QE´s, when they are approved and supervised by the Authority solely. Involvement of the NAA´s because of varying capabilities in practice shows that this is not the case and this will lead to different safety levels and unfair competition. This problem can be overcome by a Pan European QE. It is not the task of the EASA, or this NPA and comments, to initiate such a Pan European QE, but the effect and usage, when it comes to existence, must be defined. Proposal 2: Pan-European QE´s by their pan European nature must be appointed by the Agency. In case the applicant selects the Pan- European QE, combined DOA/POA applications will be automatically dealt with by the Agency, and not through CA´s or NAA´s. Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights - mostly also sold as LSA in FAA world - in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft. There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control. This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing. In all countries where deregulated airplanes are already flying (LSA, homebuilt aircrafts, Annex II), it is proven that deregulation in general is not reason for less safety, much more it can even improve safety.
response	*Partially accepted* Proposal 1: QE may be used by EASA to do technical tasks in relation with DOA approval and by NAA to do technical tasks in relation with POA. QE dealing with design will be accredited by EASA, so consistency should be achieved. QE dealing with production will be accredited by NAA. However, the way these accreditations are done will be checked by EASA through the production standardisation work. Proposal 2: A pan-European QE dealing with design issues will be approved by EASA. The same QE dealing also with production can only be approved by

EASA if the affected Member States agree to it.
However, the policy to use QE has not been yet adopted by the EASA Management Board.

comment *294* comment by: *Karg*

Accreditation of Design Organizations must be under Agency, not NAA, already now.
Comments to POA also have effect on last line here.

response *Not accepted*

DOA are issued by the Agency. Concerning POA, please see reply to comment No 235.

comment *315* comment by: *TECNAM*

Comments 1 and 2 apply here as well – link same comment to this position.

response *Noted*

Please see reply to comment No 308.

comment *316* comment by: *TECNAM*

Accreditation of Design Organizations must be under Agency, not NAA, already now.

Comments to POA also have effect on last line here.

response *Not accepted*

DOA are issued by the Agency. Concerning POA, please see reply to comment 235.

comment *328* comment by: *Ronald MEYER*

Issue of a "special airworthiness certificate (SAC)" according to FAA-LSA procedure instead of a type certification (TC) for CS-LSA. The certification procedure as described in Attachment 2 must not be applied for issueing a "special airworthiness certificate (SAC)". The issue of SAC has strictly to be reduced to the procedure described under

Comment 14: Creation of a Certification Specification - Light Sport Aeroplane (CS-LSA)
identically to the FAA-LSA procedure. If this is not respected, CS-LSA will never be animated. Instead, we will have an equivalent to the already existing VLA category, nobody wants and nobody needs.

response *Noted*

See reply to comment No 308.

comment *332* comment by: *Ronald MEYER*

No approvals, related to a TC for CS-LSA. After issueing a "special

airworthiness certificate (SAC)" for initial airworthiness, all requirements have strictly to be reduced to the analogue requirements within the framework of FAA-LSA. If this is not respected, CS-LSA will never be animated. Instead, we will have an equivalent to the already existing VLA category, nobody wants and nobody needs.

Validation of third country TC has to be supplemented by validation of third country Special Airworthiness Certificate (SAC) according to FAA-LSA.

response *Noted*

The Basic Regulation requires that aircraft obtain a type certificate or a restricted type certificate. The task BR.010 will explore other possibilities but they will require a modification of the Basic Regulation.

comment *349* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

AFM:
Our experience with validation of already "certified" UL has shown that the completeness and accu-racy of AFM/AFMS/AMMs and their continuous update is not satisfactory. This has also to do with the rather dynamic environment of the UL industry and the large variety of models being offered which poses quite a challenge from the configuration control standpoint. It is therefore recommended to properly address the issue of an effective "Issue of information or instructions" process and the asso-ciated responsibilities. Moreover, it is suggested to consider the preparation of AMC/GM concerning the classification of AFM/AFMS changes.

response *Noted*

The current rules relative to the issue of an aircraft manual does apply as ELA aircraft will receive a type certificate or a restricted type certificate.

comment *361* ❖ comment by: *O. Reinhardt / Flightdesign*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a).

In addition to this, it must be ensured that a common level is achieved for applicants throughout all the EASA member states. This is mostly the issue from side of the QE´s, when they are approved and supervised by the Authority solely. Involvement of the NAA´s because of varying capabilities in practice shows that this is not the case and this will lead to different safety levels and unfair competition . This problem can be overcome by a Pan European QE. It is not the task of the EASA, or this NPA and comments, to initiate such a Pan European QE, but the effect and usage, when it comes to existence, must be defined.

Proposal 2: Pan-European QE´s by their pan European nature must be appointed by the Agency. In case the applicant selects the Pan- European QE, combined DOA/POA applications will be automatically dealt with by the Agency, and not through CA´s or NAA´s.

	Comment is valid also for the who does what table ELA 1; group "organisational approval"
response	*Partially accepted* Please see CRD Part I paragraph b(6).

comment	*362* ❖ comment by: *O. Reinhardt / Flightdesign* Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft. There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control. This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing. In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety. This comment is also valid for several other locations as linked, and for the Who does what- Table, there section "organisational approval" (not possible to link exactly)
response	*Noted* Proposal 1: QE may be used by EASA to do technical tasks in relation with DOA approval and by NAA to do technical tasks in relation with POA. QE dealing with design will be accredited by EASA, so consistency should be achieved. QE dealing with production will be accredited by NAA. However, the way these accreditations are done will be checked by EASA through the production standardisation work. Proposal 2: A pan-European QE dealing with design issues will be approved by EASA. The same QE dealing also with production can only be approved by EASA if the affected Member States agree to it. However, the policy to use QE has not been yet adopted by the EASA Management Board.

comment	*367* comment by: *O. Reinhardt / Flightdesign* refers to "Accredition and Surveillance" on page 22: Accreditation of Design Organizations must be under Agency, not NAA, already now. Comments to POA also have effect on last line here.

response | *Not accepted*

DOA are issued by the Agency. Concerning POA, please see reply to comment No 235.

comment | *384* comment by: *Thomas Wendt*

Comment 7
Page 22 A. EXPLANATORY NOTE - Attachment 2 - Who does what - Initial and Continued Airworthiness - ELA 1 - Organisational Approval

Comments 1 and 2 apply here as well - link same comment to this position.

Comment 8
Page 22 A. EXPLANATORY NOTE - Attachment 2 - Who does what - Initial and Continued Airworthiness - ELA 1 - Accredition and Surveillance

Accreditation of Design Organizations must be under Agency, not NAA, already now.

Comments to POA also have effect on last line here.

response | *Not accepted*

DOA are issued by the Agency. Concerning POA, please see reply to comment No 235.

comment | *400* ❖ comment by: *Flight Design GmbH Matthias Betsch CEO*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response | *Noted*

Proposal 1:
QE may be used by EASA to do technical tasks in relation with DOA approval and by NAA to do technical tasks in relation with POA.
QE dealing with design will be accredited by EASA, so consistency should be

achieved. QE dealing with production will be accredited by NAA. However, the way these accreditations are done will be checked by EASA through the production standardisation work.
Proposal 2: A pan-European QE dealing with design issues will be approved by EASA. The same QE dealing also with production can only be approved by EASA if the affected Member States agree to it.
However, the policy to use QE has not been adopted yet by the EASA Management Board.

comment

417 comment by: *Flight Design GmbH Matthias Betsch CEO*

Accreditation of Design Organizations must be under Agency, not NAA, already now.

Comments to POA also have effect on last line here.

response

Not accepted

DOA are issued by the Agency. Concerning POA, please see reply to comment No 235.

comment

455 comment by: *www.fascination-pilots.de*

Comments 1 and 2 apply here as well – link same comment to this position.

response

Noted

See response to comment No 449.

comment

456 comment by: *www.fascination-pilots.de*

Accreditation of Design Organizations must be under Agency, not NAA, already now.

Comments to POA also have effect on last line here.

response

Not accepted

DOA are issued by the Agency. Concerning POA, please see reply to comment No 235.

comment

470 comment by: *Tegelbeckers*

Comment 7
Page 22 A. EXPLANATORY NOTE - Attachment 2 - Who does what - Initial and Continued Airworthiness - ELA 1 - Organisational Approval
Comments 1 and 2 apply here as well - link same comment to this position.
Comment 8
Page 22 A. EXPLANATORY NOTE - Attachment 2 - Who does what - Initial and Continued Airworthiness - ELA 1 - Accredition and Surveillance
Accreditation of Design Organizations must be under Agency, not NAA, already now.
Comments to POA also have effect on last line here.

response

Not accepted

DOA are issued by the Agency. Concerning POA, please see reply to comment

No 235.

comment *491* comment by: *light-wings Oliver Liedmann*

Comments 1 and 2 apply here as well - link same comment to this position

response *Noted*

See response to comment No 449.

comment *507* comment by: *aeroklaus*

Comment 7
Page 22 A. EXPLANATORY NOTE - Attachment 2 - Who does what - Initial and Continued Airworthiness - ELA 1 – Organisational Approval

Comments 1 and 2 apply here as well – link same comment to this position.

response *Noted*

See response to comment No 500.

comment *508* comment by: *aeroklaus*

Comment 8
Page 22 A. EXPLANATORY NOTE - Attachment 2 - Who does what - Initial and Continued Airworthiness - ELA 1 – Accredition and Surveillance
Accreditation of Design Organizations must be under Agency, not NAA, already now.
Comments to POA also have effect on last line here.

response *Not accepted*

DOA are issued by the Agency. Concerning POA, please see reply to comment No 235.

comment *587* comment by: *klaus M*

Comment 7
Page 22 A. EXPLANATORY NOTE - Attachment 2 - Who does what - Initial and Continued Airworthiness - ELA 1 - Organisational Approval
Comments 1 and 2 apply here as well - link same comment to this position.

response *Noted*

See reply to comment No 580.

comment *588* comment by: *klaus M*

Comment 8
Page 22 A. EXPLANATORY NOTE - Attachment 2 - Who does what - Initial and Continued Airworthiness - ELA 1 - Accredition and Surveillance
Accreditation of Design Organizations must be under Agency, not NAA, already now.
Comments to POA also have effect on last line here.

response *Not accepted*

DOA are issued by the Agency. Concerning POA, please see reply to comment No 235.

comment 617 comment by: *Cessna Aircraft Company*

QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a). In addition to this, it must be ensured that a common level is achieved for applicants throughout all the EASA member states. This problem can be overcome by a Pan European QE. Pan-European QE´s by their pan European nature must be appointed by the Agency. In case the applicant selects the Pan- European QE, combined DOA/POA applications will be automatically dealt with by the Agency, and not through CA´s or NAA´s.

response *Noted*

The policy on QE has not been yet adopted by the EASA Management Board.

comment 632 comment by: *Martin Josef Warken*

Comment 7
Page 22 A. EXPLANATORY NOTE - Attachment 2 - Who does what - Initial and Continued Airworthiness - ELA 1 - Organisational Approval

Comments 1 and 2 apply here as well - link same comment to this position.

response *Noted*

See reply to comment No 624.

comment 633 comment by: *Martin Josef Warken*

Comment 8
Page 22 A. EXPLANATORY NOTE - Attachment 2 - Who does what - Initial and Continued Airworthiness - ELA 1 - Accredition and Surveillance

Accreditation of Design Organizations must be under Agency, not NAA, already now.

Comments to POA also have effect on last line here.

response *Not accepted*

DOA are issued by the Agency. Concerning POA, please see reply to comment No 235.

comment 666 comment by: *DGAC France*

1a. COMMENT TO :
- ü **Explanatory Note**

1b. AFFECTED PARAGRAPH :

Attachement 2 and 3 :

2. Comment:
La répartition proposée des tâches entre l'EASA et la NAA ou Entité qualifiée présentée en Attachements 2 et 3 doit être revue pour plus de cohérence. En particulier, pour des raisons de standardisation, la DGAC recommande que les bases de certification, le manuel de vol et les limites de vie soient approuvées par l'AESA.
La DGAC recommande que la répartition des tâches finalisées entre entité certifiant et l'AESA soit incluse dans la procédure AESA sur la certification ELA.[A1]

Courtesy translation:
DGAC recommends that the task repartition between EASA and the certifying body would be included in the EASA procedure on ELA Certification. For standardisation reasons, DGAC recommends that the Airplane Flight Manuel and the certification programme would be approved by the EASA.

[A1]Le programme de certification semble toujours approuvé par l'AESA

response

Noted

The Agency intends to approve special conditions, equivalent safety and certification plan. The Agency considers that this ensures sufficient standardisation between projects.

comment

692 comment by: *Evektor*

EVEKTOR position:
Certification
1. ... "*Agrement of certification basis..*" vs. "*Approval of certification plan*"- both tasks are connected each other, approval (both tasks) by Qualified Enitity and EASA acceptance (certification plan) would by sufficient,
2. "*Confirmation of compliance*" and "*Technical visa for Approval of flight conditions...*"- there is no information similar to ..."*involvement reduced in case....*"

Post TC approval /Individual aircraft
1. "*Approval of minor changes*" / "*Approval of minor repair*" wouldn't be necessary to approved by EASA, if Qualified Entity approved "*technical visa*", Qualified Entity is able to approved minor changes/minor repair.

response

Noted

The EASA Management Board has not adopted yet the policy for qualified entities.

comment

711 comment by: *procomposite*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with

additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Noted

Proposal 1:
QE may be used by EASA to do technical tasks in relation to DOA approval and by NAA to do technical tasks in relation to POA.
QE dealing with design will be accredited by EASA, so consistency should be achieved. QE dealing with production will be accredited by NAA. However, the way these accreditations are done will be checked by EASA through the production standardisation work.
Proposal 2: A pan-European QE dealing with design issues will be approved by EASA. The same QE dealing also with production can only be approved by EASA if the affected Member States agree to it.
However, the policy to use QE has not been yet adopted by the EASA Management Board.

comment

731 comment by: *Oliver*

negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Proposal 1: QE´s shall also be appointed for the Auditing work to obtain DOA and POA that allows design and production work under ELA 1. This is fully in line with basic regulation 216/2008 Chapter II Section I Article 20 2(a).

In addition to this, it must be ensured that a common level is achieved for applicants throughout all the EASA member states. This is mostly the issue from side of the QE´s, when they are approved and supervised by the Authority solely. Involvement of the NAA´s because of varying capabilities in practice shows that this is not the case and this will lead to different safety levels and unfair competition . This problem can be overcome by a Pan European QE. It is not the task of the EASA, or this NPA and comments, to initiate such a Pan European QE, but the effect and usage, when it comes to existence, must be defined.

Proposal 2: Pan-European QE´s by their pan European nature must be appointed by the Agency. In case the applicant selects the Pan- European QE, combined DOA/POA applications will be automatically dealt with by the Agency, and not through CA´s or NAA´s.

response

Partially accepted

Please see CRD Part I paragraph b(6).

comment

732 comment by: *Oliver*

Based on the explicit experience of the 3 years plus LSA operation in USA, and

based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Noted

Proposal 1:
QE may be used by EASA to do technical tasks in relation to DOA approval and by NAA to do technical tasks in relation to POA.
QE dealing with design will be accredited by EASA, so consistency should be achieved. QE dealing with production will be accredited by NAA. However, the way these accreditations are done will be checked by EASA through the production standardisation work.
Proposal 2: A pan-European QE dealing with design issues will be approved by EASA. The same QE dealing also with production can only be approved by EASA if the affected Member States agree to it.
However, the policy to use QE has not been yet adopted by the EASA Management Board.

comment

733 comment by: *Oliver*

Accreditation of Design Organizations must be under Agency, not NAA, already now.

Comments to POA also have effect on last line here.

response

Not accepted

DOA are issued by the Agency. Concerning POA, please see reply to comment No 235.

comment

757 comment by: *Air Marugan*

Comment 7
Page 22 A. EXPLANATORY NOTE - Attachment 2 - Who does what - Initial and Continued Airworthiness - ELA 1 - Organisational Approval

Comments 1 and 2 apply here as well - link same comment to this position.

response

Noted

See reply to comment No 750.

comment 758 comment by: *Air Marugan*

Comment 8

Page 22 A. EXPLANATORY NOTE - Attachment 2 - Who does what - Initial and Continued Airworthiness - ELA 1 - Accredition and Surveillance

Accreditation of Design Organizations must be under Agency, not NAA, already now.

Comments to POA also have effect on last line here.

response *Not accepted*

DOA are issued by the Agency. Concerning POA, please see reply to comment No 235.

comment 782 comment by: *Herbert HERGET*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the20most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be=2 0clearly underlined, that even at this level of deregulation the level of safety achieved is so high, that it can hold with those as found for Part 23 aircraft. There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As a fact, reducing the hurdles leads to a much more efficient market self control, than could be achieved by Agency control. This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing. In all countries, where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II), it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Noted*

Proposal 1:
QE may be used by EASA to do technical tasks in relation to DOA approval and by NAA to do technical tasks in relation to POA.
QE dealing with design will be accredited by EASA so consistency should be achieved. QE dealing with production will be accredited by NAA. However, the way these accreditations are done will be checked by EASA through the production standardisation work.
Proposal 2: A pan-European QE dealing with design issues will be approved by EASA. The same QE dealing also with production can only be approved by EASA if the affected Member States agree to it.
However, the policy to use QE has not been yet adopted by the EASA Management Board.

comment 783 comment by: *Herbert HERGET*

I ssue of a "special airworthiness certificate (SAC)" according to FAA-LSA procedure instead of a type certification (TC) for CS-LSA. The certification procedure as described in Attachment 2 must not be applied for issueing a "special airworthiness certificate (SAC)". The issue of SAC has strictly to be reduced to the procedure described under **Comment 14: Creation of a Certification Specification - Light Sport Aeroplane (CS-LSA)** identically to the FAA-LSA procedure. If this is not respected, CS-LSA will never be animated. Instead, we will have an equivalent to the already existing VLA category, nobody wants and nobody needs.

response *Noted*

The Basic Regulation requires that aircraft must have a type certificate or a restricted type certificate. The task BR.010 will explore other possibilities that will require modifications to the Basic Regulation.

comment *784* comment by: *Herbert HERGET*

No approvals, related to a TC for CS-LSA. After issueing a "special airworthiness certificate (SAC)" for initial airworthiness, all requirements have strictly to be reduced to the analogue requirements within the framework of FAA-LSA. If this is not respected, CS-LSA will never be animated. Instead, we will have an equivalent to the already existing VLA category, nobody wants and nobody needs. Validation of third country TC has to be supplemented by validation of third country Special Airworthiness Certificate (SAC) according to FAA-LSA.

response *Noted*

The Basic Regulation requires that aircraft must have a type certificate or a restricted type certificate. The task BR.010 will explore other possibilities that will require modifications to the Basic Regulation.

A. EXPLANATORY NOTE - Attachment 2 - Who does what - Initial and Continued Airworthiness - ELA 2 p. 23-25

comment *211* comment by: *Walter Gessky*

Attachment 3

Comment to ELA 2:

- **1) Validation of third country TC:**
  - Validation tasks should be only allocated to NAA`s,
  - Applicant might not hold a DOA
  - Third county NAA shall be involved in the stat5ement on compliance,
  - Bilateral agreement procedures must be taken into account.

2) Combined approval: practical work: allocation can be done to NAA or QE. The text has to be revised because it gives the impression that EASA can only allocate to a QE.

response *Noted*

The EASA Management Board has not yet adopted the policy for using Qualified Entities.

comment *212* comment by: *Walter Gessky*

Attachment 3

Comment to ELA 2:

•1) Validation of third country TC:

- Validation tasks should be only allocated to NAA`s,
- Applicant might not hold a DOA
- Third county NAA shall be involved in the stat5ement on compliance,
- Bilateral agreement procedures must be taken into account.

2) Combined approval: practical work: allocation can be done to NAA or QE. The text has to be revised because it gives the impression that EASA can only allocate to a QE.

response *Noted*

The EASA Management Board has not adopted yet the policy for using Qualified Entities.

comment *442* comment by: *Filippo De Florio*

Attachement 3

Certification basis ;

- o If industry standards shall be allowed, the Par. 21A.16A should also be modified.
- o Standards like CS-23 are the result of one century's experience and I doubt that they could be easily replaced by industry standards.
- o An ELA certified with such a standard cannot be exported without a complete compliance with the applicable standard (e. g. CS-23).
- o Why industry standards are allowed for ELA 2 and not for ELA 1 ? (except LSA).
- o In any case, Attachement 3 does not explain how these industry standards are approved before talking about SC and ESF.

response *Noted*

After review of comments, the intention is to use well known certification codes except for LSA where a CS-LSA has been created. This CS refers to ASTM standard F2245. The EASA intends to participate in the ASTM process. Should a subsequent amendment of the ASTM standard not be acceptable to EASA, an amendment to the CS-LSA will be produced.

comment *442* comment by: *Filippo De Florio*

Attachement 3

Certification basis ;

- o If industry standards shall be allowed, the Par. 21A.16A should also be modified.
- o Standards like CS-23 are the result of one century's experience and I doubt that they could be easily replaced by industry standards.
- o An ELA certified with such a standard cannot be exported without a complete compliance with the applicable standard (e. g. CS-23).
- o Why industry standards are allowed for ELA 2 and not for ELA 1 ? (except LSA).
- o In any case, Attachement 3 does not explain how these industry standards are approved before talking about SC and ESF.

response *Noted*

After review of comments, the intention is to use well known certification codes except for LSA where a CS-LSA has been created. This CS refers to ASTM standard F2245. The EASA intends to participate in the ASTM process. Should a subsequent amendment of the ASTM standard not be acceptable to EASA, an amendment to the CS-LSA will be produced.

comment *692* ❖ comment by: *Evektor*

EVEKTOR position:
Certification
1. ... "*Agrement of certification basis..*" vs. "*Approval of certification plan*"- both tasks are connected each other, approval (both tasks) by Qualified Enitity and EASA acceptance (certification plan) would by sufficient,
2. "*Confirmation of compliance*" and "*Technical visa for Approval of flight conditions...*"- there is no information similar to ..."*involvement reduced in case....*"

Post TC approval /Individual aircraft
1. "*Approval of minor changes*" / "*Approval of minor repair*" wouldn't be necessary to approved by EASA, if Qualified Entity approved "*technical visa*", Qualified Entity is able to approved minor changes/minor repair.

response *Noted*

The EASA Management Board has not adopted yet the policy for using Qualified Entities.

comment *694* comment by: *Evektor*

EVEKTOR position:
" *Minor change approval*"- threre is no cross.

response *Noted*

The EASA Management Board has not adopted yet the policy for using Qualified Entities.

B. DRAFT RULES p. 26

comment *218* comment by: *DynAero Iberica*

DynAero Ibérica soutient ces propositions.
DynAero Ibérica supports these proposals.

response *Noted*

The Agency thanks the commentator for their support.

B. Draft Rules - I. Amendments to Part-21 p. 26

comment *2* comment by: *Francis Fagegaltier Services*

For aeroplanes, we can find the following mass limits in Part 21 and aircraft certification specifications (after adoption of this NPA):
750 kg or 850 kg in CS-22, 750 kg in CS-VLA, 600 kg in CS-LSA, 2000 kg in

	the new 21A.14, 2722 kg in CS-23 by means of NPA 2008-08, 2730 kg in the new 21A.35 (a)(2), 5670 kg in CS-23 and .... 5700 kg in the new 21A.96 (a) (and 21A.436 (a)). Is there an intent to rationalise all these limits, particularly the discrepency between CS-23 and Part 21A.96 ? It is noted that CS-27 and Part 21A.96 are consistent (3175 kg in both cases). Note : the whole picture is even more complex with Annex II of 216/2008 Basic Regulation and its mass limits of 300 kg, 450 kg, 330 kg, 495 kg, 472,5 kg and 315 kg !
response	*Noted* This situation is due to history. The EASA will consider a possible rationalisation of all these criteria in future rulemaking tasks.

comment	*347* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland* <u>Critical parts versus life-limited parts:</u> The proposed text replaces the concept of "critical parts" by "life-limited parts" in various aspects of the regulation (21A.139(c), 21A.804(c) and 21A.805. <u>Comments:</u> The concept of life-limited parts is not adequate and should be replaced by critical parts as not all the critical parts are life-limited. The criteria shall be the effect on the safety. Typically a light sport aircraft has various critical parts whose failure would lead to a catastrophic event and hence which shall have special attention in the production but which are not life limited (e.g flight controls, main structural attachments ...). This comment also applies to 21A.804(c) and 21A.805.
response	*Noted* The concept of critical parts is not clearly defined for all aircraft categories. This explains the use of life-limited parts.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B p. 26

comment	*77* comment by: *Dyn'aéro* Dyn'Aero soutient ces propositions. *Dyn'Aero supports these proposals.*
response	*Noted* The Agency thanks the commentator for their support.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of of capability p. 26-27

comment	*3* comment by: *Francis Fagegaltier Services* It is noted that the exemption from DOA for designers of "piston engines" and "propellers", previously found in 21A.14 (b) 3, 4 and 5, is now cancelled.

It is recognised that some exemptions are still possible for engines and propellers installed in some aircraft by means of the new 21A.14 (b) and (c). However, it might exist cases where this new Part 21 would make DOA mandatory for some design organisations not previously submitted to such obligation.

This potential increase in scope of DOA has not been justified in the explanatory note of this NPA.

Does the EASA intend to apply this new rule retroactively to piston engine and propeller designers, imposing a DOA subpart J to some of them ?

response *Accepted*

The text will be revised accordingly. The proposal will only apply to new applications.

comment *4* comment by: *Francis Fagegaltier Services*

In 21A.14 (b) and (c), we find the concept of "complex-motor-powered aircraft". It appears that the NPA does not contain a definition of this "wording". It does not appear in CS-Definitions.

How can Part 21 be applied if this important definition is not known ?

It is also noted that the wording "complex aircraft" is also used in the explanatory part of this NPA, as well as the wording "non-complex airship" or "non-complex aircraft".

This is confusing for an "average" reader which was not involved in the rulemaking task MDM.032.

However, "complex-motor-powered aircraft" is defined in article 3 of Basic Regulation 216/2008. But this definition refers to aeroplanes exceeding 5700 kg : how can an aeroplane with a MTOM less than 2000 or 1000 kg be classified as a "complex-motor-powered aircraft" ? Simply because its engine would be a very small turbine engine (turbojet, turbofan or turbopropeller) as noted in last hyphen of definition in article (3)(j)(i) in Basic Regulation) ? What would be the technical justification for this discrimination against a specific technology with regard to demonstration of aircraft design capability ?

response *Noted*

The definition of complex motor-powered aircraft is included in the Basic Regulation. In such a case the definition should not be repeated in Part-21.
This definition considers as complex any aircraft equipped with a turbo-jet.

comment *59* comment by: *John Tempest*

21A.14 (c)

Guidance material is required here as to the role of the QE. Although the applicant may submit a Certification Plan to EASA, it is presumed that part of the Certification Plan would need to identify the NAA or QE to be used to confirm compliance.

Attachment 2 for ELA 1 makes it clear that confirmation of compliance with the

requirements will be necessary for ELA 1 (and of course ELA-2 will be subject to normal DOA procedures). However, this paragraph as-writted does not make it clear that compliance verification by NAA or QE is a requirement.

This is an important point to highlight because for the FAA/ASTM LSA rules and standards, compliance verification is left in the hands of the designer/manufacturer - no external validation is required. The FAA approach places responsibility directly in the hands of the manufacturer. However, I do not believe that this is the intention of this NPA.

response *Noted*

The EASA Management Board has not adopted yet the policy for using Qualified Entities.

comment *77* ❖ comment by: *Dyn'aéro*

Dyn'Aero soutient ces propositions.
Dyn'Aero supports these proposals.

response *Noted*

The Agency thanks the commentator for their support.

comment *94* comment by: *René Fournier*

A combined review of the amendments suggested by NPA 2008-06 and NPA 2008-07 creates some confusion about existing TCs for ELA 1 products. Paragraph 21A.14 applies to such existing TCs through a cross-reference in 21A.44. The wording for 21A.44 suggested in NPA 2008-06 includes a new reference to an "alternative procedure". In this NPA 2008-07, "alternative procedures" are however only mentioned in 21A.14 (b) and not in (c).

The proposed wording for subparagraph 21A.14 (c) refers to the approval of a certification programme. This is a pragmatic and welcome solution in case of applications for a new TC. The continued airworthiness of existing TCs for ELA 1 products does not however always require a certification programme. Consequently, does the reference to an "alternative procedure" in 21A.44 - as suggested in NPA 2008-06 - mean that any holder of a TC for ELA 1 products would still need to be approved under alternative procedures?

Should that be the case, as it seems, the reference to a certification programme introduced by 21A.14 (c) would then prove somewhat cosmetic. The only advantage would thus be to allow applicants for a new TC not yet approved by the Agency under alternative procedures to differ the establishment of their post TC approval procedures. This is a certainly desirable procedural improvement, though not very far reaching.

To avoid such confusion, 21A.44 (a) could then still be redrafted as follows: "(a) undertake the obligations laid down in 21A.3, 21A.3B, 21A.4, 21A.55, 21A.57 and 21A.61; and, for this purpose, shall continue to meet the requirements for eligibility under 21A.14 **(a) and (b) or, for aircraft defined in 21A.14 (c)**, as an alternative procedure, seek the Agency agreement for the use of procedures setting out its activities to undertake these obligations".

response *Accepted*

Please see CRD Part I paragraph (c) resulting text.

comment *98* comment by: *European Sailplane Manufacturers*

The European sailplane manufacturers would like to see a clarification regarding the definition of the ELA category.

As it is worded here it is clear that being a "complex motor-powered aircraft" automatically exludes this aircraft from the ELA definition.

In the new basic regulation EC 216/2008 the"complex motor-powered aircraft" is now defined as either
- a tilt rotor aircraft
- a helicopter over 3175 kg / with more than 9 passengers / with a minimum crew of 2 or more
- an aeroplane over 5700 kg / more than 19 passengers / with a minimum crew of 2 or more / with a turbojet or more / with more than one turboprops.

It has now been asked several times what to to with a powered glider which is equiped with a jet engine.
Some argue this is an aeroplane and therefore "complex motor-powered aircraft" some say that an aeroplane is always a small motor aircraft which needs the engine to fly regularly whereas a powered sailplane can operate with engine shut off as normal operating mode.

When going through existing regulation it becomes clear that indeed EASA considered aeroplanes not to be (powered or non-powered) sailplanes. So does ICAO when defining in Annex 8 Part V "small aeroplanes" as those which "are known in some states as normal, utility or aerobatic aeroplanes" (clearly referring to the CS-23 or FAR 23 category).

Therefore the European sailplane manufacturers propose the following wording for paragraph 21A.14(b) and (c):
...
- An aeroplane with MTOM less than xxxxx kg that is not classified as complex-motor-powered aircraft
- A sailplane or powered sailplane with MTOM less than xxxxx kg
- A balloon
- ....

With this wording the sense is completely clear and it will not happen that someone is considering a sailplane with a model turbine jet as self-sustainer to be a complex aircraft when an aeroplane with a turboprop with 5600 kg MTOM and 18 passengers would be no complex aircraft!

This is fully in-line with the CS-22 airworthiness requirements which historically have always been simpler and less stringent due to the fact that a powered sailplane is not automatically experiencing an emergency in case of an engibne shutdown or failure (whereas an aeroplane is).

Remark:
Obviously this wording will have to be changed also in Part-66 (certifying staff) and Part-M (continuing airworthiness) for consistency of these regulations.

response *Accepted*

We could modify the definition of ELA as proposed based on the fact that it clarifies and does not contradict the Basic Regulation. The argument would rely on the definition of airplane and powered sailplane: powered sailplane refers to aircraft and not airplanes. Airplanes refer to engine-driven which imply continuing use. Therefore jet-powered sailplanes are not included in complex motor aeroplanes. As a consequence, they are part of ELA. It is also proposed to envisage a modification to the Basic Regulation to clarify this position as the main driver for the discussion was VLJ (see task BR.010).

comment

99 comment by: *European Sailplane Manufacturers*

In this NPA 2008-07 the scope of products inculudes

- An engine installed in aircraft referred to in this paragraph

The European sailplane manufacturers agree to this wording which does not limit the type of engine for several reasons:

1. The manufacturers do point out that installation of any engine in an powered sailplane should not be regulated too stringent because these type of aircraft are not critical in case of engine shutdown or failure (see parallel comment regarding jet engines versus complex-motor-powered aircraft).
2. The different EASA publications/presentations regarding MDM.032 had the wording "piston engine" instead as of "engine" which would also exclude electric or other non-piston type of engines.
3. The manufacturers feel that especially in the field of propulsion technology new approaches will be asked for in the next years and that General Aviation could indeed help to develop new concepts. This would be unduely burdened by too tight regulation.

response

Accepted

The Agency thanks the commentator for their support.

comment

114 comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high, that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As a fact, reducing the hurdles leads to a much more efficient market self control, than could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries, where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II), it is clearly proven that deregulation in general is not a

reason for less safety and can even improve safety.

response

Noted

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment

115 comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.
Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart J. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.
Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response

Noted

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment

143 comment by: *Apex Aircraft*

Attachment #3

On se prépare aujourd'hui à rajouter 2 limites dans le part 21 qui permettront de définir les process ELA1 ou ELA2.
Une limite de 6000 lb existe au niveau du part 21A.101c) qui traite des bases de certification pour toute modification. Pourquoi ne pas choisir des sous multiples de 6000 lb. Ainsi, on pourrait par exemple définir le process ELA1 par "process s'appliquant aux aéronef de moins de 3000 lb, ..." et ELA2 par "process s'appliquant aux aéronef de moins de 3000 lb, ..."
Ci-joint le fichier part21.pdf qui résume les différentes limites en masse du part21.

response

Noted

The Agency agrees that the simplification and rationalisation of the criteria within ELA1 and ELA2 would be useful. The Agency will consider this in future rulemaking tasks.

comment

146 comment by: *ENAC*

The definitions of ELA (as proposed in 21A.14) appear not consistent with the scope of the proposal NPA and unless an arbitrary weigt treshold for some aircraft do not provide any limitation or reasonable criteria to verify the

applicability of simplified certificating process.

response

Not accepted

Comment not understood.

comment

172 comment by: *Alexander Eich*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart J. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response

Noted

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment

243 comment by: *Ronald MEYER*

Comment 4
Page 26/27 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high, that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As a fact, reducing the hurdles leads to a much more efficient market self control, than could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries, where deregulated airplanes are flying already (LSA, homebuilt

aircrafts, Annex II), it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production

comment *244* comment by: *Ronald MEYER*

Comment 5
Page 26/27 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Negative. The proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, which we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart J. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, as long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products coming within ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *256* ❖ comment by: *Gorden WIEGELS*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO

qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *262* comment by: *Gorden WIEGELS*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart J. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *268* ❖ comment by: *Gorden WIEGELS*

Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".

This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in …". The wording as published in the NPA is considered as fully suitable.

response *Accepted*

Existing presentations have been modified.

comment *277* comment by: *Klaus Erger*

Comment **9**
Page 26/27 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Comment 2 also valid here

Comment 10
Page 26/27 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.
Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart J. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.
Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *295* comment by: *Karg*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights - mostly also sold as LSA in FAA world - in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are already flying (LSA, homebuilt aircrafts, Annex II), it is proven that deregulation in general is not reason for less safety, much more it can even improve safety.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment	*296* comment by: *Karg* Negative - the proposal as presented here is in the suitable direction, but not reaching far enough. Companies already delivering to FAA world LSA certified aircraft that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart J. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only. Proposal: A block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.
response	*Noted* Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment	*306* comment by: *Karg* Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph". This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.
response	*Accepted* Existing presentations have been changed.

comment	*317* comment by: *TECNAM* Comment 2 also valid here
response	*Noted* Please see reply to comment No 308.

comment	*318* comment by: *TECNAM* Negative - the proposal as presented here is in the suitable direction, but not reaching far enough. Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise

the privileges as defined in Subpart J. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *329* comment by: *TECNAM*

Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".
This approval is explicitly commented, as there are presentations from EASA in circulation, that – probably due to historic reasons of the evolving matter – quote the engines as „piston engines installed in …". The wording as published in the NPA is considered as fully suitable.

response *Accepted*

Existing presentations have been modified.

comment *333* comment by: *Luftfahrt-Bundesamt*

The design of a small aeroplane, or some equipment for sports aviation, is sometimes performed by experienced enigneers, if a company is already established. On the other hand, small companies are emerging and disappearing more often. The start-up of small companies results very often from a sideline job of an enthusiast. Later on, the hobby converts to a new profession. From our point of view, such development should be possible without falling below a minimum safety standard.

Big companies, assigned with many experienced engineers, do not need "technical surveillance" but are surveyed by "procedural tools". Small companies, with a small number of experienced engineering staff - or sometimes not very experienced staff - do need a competent technical care / supervision, whereas it may be questioned if procedural control will add significant safety to the products.

Conclusion: The smaller - or the more unexperienced - a company is, the smaller is the need for procedural control, but the need for competent technical care / supervision increases.

The NPA is mainly focussed on "procedural changes", seeming to imply the unquestionably professional character of applicants. This is an assumption that - from our point of view and experience - is far away from reality.

Applicants shall have the possibility to take advantage from the experience

gathered with an aviation authority, therefore we propose the following change to 21A.14 c):

(c) By way of derogation from paragraph (a), an applicant may elect for *compliance demonstration the verification by the Agency* when the product is one of the following:

response *Noted*

The Agency will develop certification procedures for ELA. These procedures will define the level of implication of the Agency: such level will depend among other thigs on the experience of the designer.

comment *358* comment by: *Aero-Club of Switzerland*

Please rename the "Very Light Rotorcraft" as proposed!.

response *Noted*

See reply to comment No 214.

comment *362* ❖ comment by: *O. Reinhardt / Flightdesign*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

This comment is also valid for several other locations as linked, and for the Who does what- Table, there section "organisational approval" (not possible to link exactly)

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *369* comment by: *O. Reinhardt / Flightdesign*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart J. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *375* ❖ comment by: *O. Reinhardt / Flightdesign*

Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".
This approval is explicitly commented, as there are presentations from EASA in circulation, that – probably due to historic reasons of the evolving matter – quote the engines as „piston engines installed in …". The wording as published in the NPA is considered as fully suitable.

response *Accepted*

Existing presentations have been changed.

comment *385* comment by: *Thomas Wendt*

Comment 9
Page 26/27 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Comment 2 also valid here

Comment 10
Page 26/27 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart J. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products

only.

Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.
Page 26/27 B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".
This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.

response *Partially accepted*

Existing presentations have been changed.
Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *400* ❖ comment by: *Flight Design GmbH Matthias Betsch CEO*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *409* comment by: *CAA CZ*

Editorial change only: we propose to number (1, 2 ...) the proposed items and the sub-items (i, ii, ...) as was in the previous text.

response *Accepted*

Text will be amended accordingly.

comment *418* comment by: *Flight Design GmbH Matthias Betsch CEO*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart J. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Partially accepted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *420* ❖ comment by: *Flight Design GmbH Matthias Betsch CEO*

Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".
This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.

response *Accepted*

Existing presentations have been changed.

comment *457* comment by: *www.fascination-pilots.de*

Comment 2 also valid here

response *Noted*

Please see reply to comment No 449.

comment *458* comment by: *www.fascination-pilots.de*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart J. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *471* comment by: *Tegelbeckers*

Comment 9
Page 26/27 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability
Comment 2 also valid here
Comment 10
Page 26/27 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability
Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.
Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart J. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.
Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *478* comment by: *Tegelbeckers*

Page 26/27 B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B

- 21A.14 Demonstration of capability
Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".
This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.

response *Accepted*

Existing presentations have been changed.

comment *492* comment by: *light-wings Oliver Liedmann*

Comment 2 also valid here.

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart J. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *509* comment by: *aeroklaus*

Comment 9
Page 26/27 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability
Comment 2 also valid here

response *Noted*

Please see reply to comment No 502.

comment *510* comment by: *aeroklaus*

Comment 10
Page 26/27 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.
Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart J. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *527* comment by: *Austro Control GmbH*

21A.14 versus 21A.44 Continuing Airworthiness ELA 1
Comment:
According 21A.14(c) NPA for an ELA1 aircraft a certification program is acceptable for application. To fulfill the continuing airworthiness requirements in 21A.44 it is not clear if a DOA is required. Furthermore, looking into attachment 2 list there are all organisations involved. This is definitely overregulated and confusing. Who is responsible for the requirement in accordance to 21A.44?
The comparable system in the USA and EU (Annex II aircraft), for this category an TC Holder without an DOA is acceptable. There is no safety impact. In case of service difficulties an AD is sufficient to prevent the unsafe condition.

Proposal
Within the ELA1 a current DOA shall not be required for an current TC. The continuing airworthiness obligations may be taken over by POA or DOA or a QE or a NAA or a competent authority. This may be also an organisation with an combined approval.

21A.44 shall be amended by adding the following:
(c) the obligations of (a) and (b) for ELA1 may be transferred to an approved POA, DOA, QE or NAA or an organisation with a combined approval.

response *Not accepted*

The obligations of the designer should be the same for type certification or continuing airworthiness.

comment *528* comment by: *Austro Control GmbH*

21A.14 (b) and (c) Rotorcraft
Comment

There should be no reference to VLR. Rotorcraft below 1000kg should be part of ELA1.
Proposal
Delete VLR in (b)
Add rotorcraft below 1000kg in (c) ELA 1

response

Noted

The only helicopter eligible for the ELA process is VLR: in this case it is ELA2.

comment

564 comment by: *UK CAA*

Subject/Topic	**Comments on the proposed changes to Part 21**
NPA Section / Page	**Comment**
21A.14 Pages 26 and 27 ELA1 and ELA2 definitions	The NPAs for engineer licences need to checked for consistency with descriptions of ELA1 and ELA2 given in this NPA. These definitions do not specify that the ELAs are manned. As written the derogation and ELA processes would apply to unmanned aircraft above 150 kg. Unmanned Aircraft Systems (UAS) are inherently complex systems, utilising flight critical software. Also, the Agency has not yet established its formal detailed position on the appropriate standards to apply to UAS. It is suggested that each line of the ELA 1 and 2 definitions should begin "A manned ....." so that unmanned aircraft are excluded.

response

Accepted

The Agency agrees with the intent of the comment and will consider an improvement to the wording.
Please note that the Agency has now published a policy statement for Unmanned Aircraft System (UAS) at:
http://www.easa.europa.eu/ws_prod/c/doc/Policy_Statements/E.Y013-01_%20UAS_%20Policy.pdf

This policy statement defines the capability for design for UAS.

comment

589 comment by: *klaus M*

Comment 9
Page 26/27 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability
Comment 2 also valid here

response

Noted

Please see response to comment No 582.

comment

590 comment by: *klaus M*

Comment 10
Page 26/27 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.
Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart J. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.
Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response

Noted

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment

609 comment by: *Cessna Aircraft Company*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Proposal 1: A subparagraph/block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking. Adding section (d) will allow U.S. LSA aircraft manufacturers to provide safe and reliable aircraft to European customers. Adding section (d) will ensure aircraft flown by the public continue to meet the highest EASA and ASTM standards available.

Proposal 2: Recommend the following wording be adopted as the new subparagraph/block (d):

"(d) By way of derogation from paragraph (a), an applicant may elect to use an alternative procedure to demonstrate its capability for ELA 1 certification.

- An applicant may seek Agency agreement for the use of ASTM F37 light-sport aircraft consensus standards which sets out the specific design practices, resources, sequences and quality control of activities necessary to comply with this Part, when the product is an ELA 1 aircraft.

The Agency will accept and approve applicants who meet ASTM F37 light sport

- aircraft consensus certification standards without meeting other Agency standards.
- The Agency reserves the right to audit or check the applicant to ensure ASTM F37 light sport aircraft standards have been met.

Proposal 3: Cessna Aircraft Company recommends that a stand-alone

European light-sport aircraft (LSA) category be established as it offers the greatest opportunity for promoting aviation within Europe.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *627* comment by: *Peter VON BURG*

The proposal is in the right direction, but please include other equivalent quality standards than subpart J for ELA1 as well. DIN EN ISO 9000 or 9100 among others should be sufficient for ELA1

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *634* comment by: *Martin Josef Warken*

Comment 9
Page 26/27 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Comment 2 also valid here

response *Noted*

Please see reply to comment No 628.

comment *635* comment by: *Martin Josef Warken*

Comment 10
Page 26/27 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart J. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response

Noted

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment

650 comment by: *Martin Josef Warken*

Comment 20
Page 5/6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Overview of the proposals included in this NPA

Page 6 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 1

Page 7 A. Explanatory Note - IV. Content of the draft opinion and of the draft decision - Further considerations on the European Light Aircraft Process - ELA 2

Page 26/27 B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".
This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.

response

Accepted

Existing presentations have been changed.

comment

670 comment by: *EAA*

Attachment #4

Page 26/27 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Proposal 1: A subparagraph/block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products falling under ELA 1 when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking. Adding section (d) will allow U.S. LSA aircraft manufacturers to provide safe and reliable aircraft to European customers. Adding section (d) will ensure aircraft flown by the public continue to meet the highest EASA and ASTM standards available.

Proposal 2: The Experimental Aircraft Association (EAA) has been the industry leader in the light sport aircraft movement within the United States. Over the past four years, EAA has worked in partnership with the ASTM F37 light sport

aircraft design consensus standards committee, the Federal Aviation Administration (FAA) and aircraft manufacturers from around the world for the sole purpose of creating aircraft that are safe to operate in all design and production standards. EAA is very happy to inform you that this safety goal has been reached. Discussions with Pete Devaris (Manager, FAA Safety Analysis Branch, phone 202-267-9628, e-mail: Peter.Devaris@faa.gov) on July 18, 2008 have confirmed that aircraft produced to ASTM F37 standards do not have a higher level of accidents attributed to design or production issues than the FAA sees in aircraft produced to type or production certificate standards. Because of this established and proven equal level of safety, EAA recommends a new subparagraph (g) be added as the established Paneuropean light sport aircraft design and production standard.

Proposal 3: Recommend the following wording be adopted as the new subparagraph/block (d):

"(d) By way of derogation from paragraph (a), an applicant may elect to use an alternative procedure to demonstrate its capability for ELA 1 certification.

- An applicant may seek Agency agreement for the use of ASTM F37 light-sport aircraft consensus standards which sets out the specific design practices, resources, sequences and quality control of activities necessary to comply with this Part when the product is an ELA 1 aircraft.
- The Agency will accept and approve applicants who meet ASTM F37 light sport aircraft consensus certification standards without meeting other Agency standards.
- The Agency reserves the right to audit the applicant to ensure ASTM F37 light sport aircraft standards have been met.

Proposal 3: EAA recommends that a stand-alone Paneuropean light-sport aircraft (LSA) category be established as it offers the greatest opportunity for promoting aviation within Europe.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *695* comment by: *Deutscher Aero Club e.V. (DAeC)*

When finalising the wording attention should be taken that the propulsion of ELA aircraft is not limited to piston engines but also allows electric or other non-piston type of engines.

response *Accepted*

The NPA and the proposed Opinion are in line with the comment. Only presentations were unfortunately incorrect and have been corrected accordingly.

comment *713* comment by: *procomposite*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality

standards manifesting the design capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart J. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *734* comment by: *Oliver*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *735* comment by: *Oliver*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise

	the privileges as defined in Subpart J. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only. Proposal: A block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.
response	*Noted* Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment	*759* comment by: *Air Marugan* **Comment 9** Comment 2 also valid here
response	*Noted* Please see reply to comment No 752.

comment	*760* comment by: *Air Marugan* **Comment 10** Negative - the proposal as presented here is in the suitable direction, but not reaching far enough. Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart J. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only. Proposal: A block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.
response	*Noted* Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment	*773* comment by: *Air Marugan* **Comment 20** Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph". This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.
response	*Accepted* Existing presentations have been changed.

comment	*785* comment by: *Herbert HERGET* Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high, that it can hold with those as found for Part 23 aircraft. There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As a fact, reducing the hurdles leads to a much more efficient market self control, than could be achieved by Agency control. This is the background for the comments proposing solutions on how to go with the EASA DOA a nd POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing. In all countries, where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II), it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.
response	*Noted* Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment	*786* comment by: *Herbert HERGET* Negative. The proposal as presented here is in the suitable direction, but not reaching far enough. Companies already delivering to FAA world LSA certified aircraft, which we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as r equired by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart J. So, when a valid approval exists following the appropriate ASTM stan dard, DIN EN ISO 9001 or 9100, this must be considered equivalent, as long as the company deals with ELA 1 products only. Proposal: A block (d) must be added, allowing to reach DOA privileges as defined in Subpart J, but limited to products coming within ELA 1, when deviating from the relevant paragraphs for the design assurance system (21A.239) on the basis of a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response | *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.35 Flight Tests p. 27

comment | *5* comment by: *Francis Fagegaltier Services*

Editorial :
(1) the subparagraph (b) is misplaced.
(2) there is no subparagraph (c). Why ? In current 21A.35 it is reserved as well as subparagraphs (d) and (e) which, contrary to (c), are reproduced here.

response | *Accepted*

The proposal will be corrected.

comment | *77* ❖ comment by: *Dyn'aéro*

Dyn'Aero soutient ces propositions.
Dyn'Aero supports these proposals.

response | *Noted*

The Agency thanks you for your support.

comment | *281* comment by: *Klaus Erger*

Comment 20
Page 26/27 B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.14 Demonstration of capability

Approval is given to the engine definition of ELA categories, being „An engine installed in an aircraft referred to in this paragraph".
This approval is explicitly commented, as there are presentations from EASA in circulation, that - probably due to historic reasons of the evolving matter - quote the engines as „piston engines installed in ...". The wording as published in the NPA is considered as fully suitable.

response | *Noted*

Thank you for your comment.
The NPA is the reference and the presentations have been corrected.

comment | *676* comment by: *DGAC France*

1a. COMMENT TO :
- ü **Draft Opinion(s)**

Amendment to Commission Regulation (EC) No. 1702/2003 Part 21

1b. AFFECTED PARAGRAPH :
21.A.35,
21.A.163
21.A.353

2. PROPOSED TEXT:

- 21A.35 : A line return is missing after « Agency » before the paragraph (b).
- 21A.163 : delete one « for any »
- 21A.353 : delete one (v)

3. JUSTIFICATION:

These are typos.

response *Partially accepted*

21A.35 and 21A.353 are corrected.
21A.163(c) is not kept. Refer to comments to that specific paragraph.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart B - 21A.47 Transferability p. 27

comment *6* comment by: *Francis Fagegaltier Services*

Apparently some words are missing, because the meaning of "except for aircraft defined in 21A.14 (c) has sought the Agency agreement" cannot be determined.

response *Noted*

The proposed change to 21A.47 is removed because this paragraph will be consistent with the proposed amendment to Opinion 03/2009. For more information also refer to CRD 2008-06 on the EASA website.

comment *55* comment by: *John Tempest*

Guidance material would be useful here to indicate that the TC holder may use a QE to oversee the requirements for airworthiness.

response *Noted*

Please note first that the proposed change to 21A.47 is removed because this paragraph will be consistent with the proposed amendment to Opinion 03/2009. For more information also refer to CRD 2008-06 on the EASA website.
Furthermore, the EASA Management Board has not adopted yet the policy on the use of QE.

comment *77* ❖ comment by: *Dyn'aéro*

Dyn'Aero soutient ces propositions.
Dyn'Aero supports these proposals.

response *Noted*

The proposed change to 21A.47 is removed because this paragraph will be consistent with the proposed amendment to Opinion 03/2009. For more information also refer to CRD 2008-06 on the EASA website.

comment	*95* comment by: *René Fournier* The modification suggested in this NPA 2008-07 differs from the wording suggested for this same paragraph in NPA 2008-06. So far, neither wording is very clear. It should be reviewed in line with the clarification to be made for paragraphs 21A.14 and 21A.44.
response	*Noted* The proposed change to 21A.47 is removed because this paragraph will be consistent with the proposed amendment to Opinion 03/2009. For more information also refer to CRD 2008-06 on the EASA website.

comment	*530* comment by: *Austro Control GmbH* **21A.47 TC Transfer** **Comment:** This is unclear from wording and intent. See comment 21A.44. A non DOA organisation / person may be competent as an TC Holder within the ELA 1. A DOA should not be required for a TC Holder of the ELA1 category! The continuing airworthiness monitoring may be carried out by any Organisation (combined approval preferred see comment to Subpart L) **Proposal:** Change proposed text after 21A.14 to "except for ELA1 aircraft."
response	*Noted* The proposed change to 21A.47 is removed because this paragraph will be consistent with the proposed amendment to Opinion 03/2009. For more information also refer to CRD 2008-06 on the EASA website.

comment	*565* comment by: *UK CAA* 21A.47, Page 27; & 21A.116, Page 28 The highlighted changes do not make sense - are some words missing from the paragraphs?
response	*Noted* The proposed change to 21A.47 is removed because this paragraph will be consistent with the proposed amendment to Opinion 03/2009. For more information also refer to CRD 2008-06 on the EASA website.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart D p. 28

comment	*77* ❖ comment by: *Dyn'aéro* Dyn'Aero soutient ces propositions. *Dyn'Aero supports these proposals.*
response	*Noted* The Agency thanks you for your support.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart D - 21A.96 Standard changes p. 28

comment *77* ❖ comment by: *Dyn'aéro*

Dyn'Aero soutient ces propositions.
Dyn'Aero supports these proposals.

response *Noted*

The Agency thanks the commentator for their support.

comment *147* comment by: *ENAC*

Proposed 21A.96 introduces the concept "Standard Changes", this new classification do not consider the usual classification of minor/major changes and it seems independent from the aircraft where it is applied.
The change is to a Type Design and in this context it needs to be evaluated, it is not a theoretical change.
The proposed 21A.96 appears to introduce additional difficulties in the process.

response *Noted*

The Agency agrees that these changes are changes to type design. They are in principle independent of the aircraft design; however, nothing prevents from putting limitations when appropriate to apply a specific standard change to specific design in a similar manner as the US AC-43 does for ski installation (i.e. the aircraft must be first approved to use skis).
These changes are not limited to minor modifications as the check and balance will be found in the consultation on the CS.
The standard change will be evaluated through the NPA process.
The first issue of the CS will be based on the US AC that have been used satisfactorily in the US and also European context as some manufacturers have already included them in their instructions for continued airworthiness.

comment *197* comment by: *Walter Gessky*

21A.96 Standard changes
Add the following:
•**(a)** The standard change **constitutes a minor change and** is deemed to be approved by the Agency when it is designed in accordance with the certification specification mentioned in paragraph (b**) and not contrary to TC holder's data.**

Justification:
Standard changes incorporated according to a CS shall not be contrary to TC holders design data.
Standard changes shall be only minor design changes.
Question:
Production of Parts for standard changes? Is a part 145 organization entitled to manufacture parts for standard changes?
Require standard changes, where the designed is based on the CS an approval or can this change be installed by a part 145 or part M subpart F organization or for non commercial ELA products by a license holder without an approval?
When standard changes are minor changes than the design of the change

should be automatically approved.

response *Partially accepted*

The Agency agrees that these changes are changes to type design. They are in principle independent of the aircraft design; however, nothing prevents from putting limitations when appropriate to apply a specific standard change to specific design in a similar manner as the US AC-43 does for ski installation (i.e. the aircraft must be first approved to use skis).
These changes are not limited to minor modifications as the check and balance will be found in the consultation on the CS.
The standard change will be evaluated through the NPA process.
The first issue of the CS will be based on the US AC that have been used satisfactorily in the US and also European context as some manufacturers have already included them in their instructions for continued airworthiness.
The Agency agrees that the standard change should not be contrary to TC holder's data and will modify the text accordingly. The Agency notes that a comparable provision exists in the US AC.

comment *348* comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

Introduction of standard changes and standard repairs:

The introducing a CS for standard changes and repairs is welcome. Nevertheless, the extension of its applicability to Major changes raises some concerns (at least based on the information available in the NPA text). Considering the level of regulatory oversight envisaged by the NPA, it appears inadequate to have Major Changes approved solely on the basis of a user's determination that a certain CS con-tent is "appropriate to the product being altered, directly applicable to the alteration being made, and not contrary to manufacturer's data". How these conditions may be satisfied (particularly in the ELA 1 context) is questionable.

response *Partially accepted*

The Agency agrees that these changes are changes to type design. They are in principle independent of the aircraft design; however, nothing prevents from putting limitations when appropriate to apply a specific standard change to specific design in a similar manner as the US AC-43 does for ski installation (i.e. the aircraft must be first approved to use skis).
These changes are not limited to minor modifications as the check and balance will be found in the consultation on the CS.
The standard change will be evaluated through the NPA process.
The first issue of the CS will be based on the US AC that have been used satisfactorily in the US and also European context as some manufacturers have already included them in their instructions for continued airworthiness.
The Agency agrees that the standard change should not be contrary to TC holder's data and will modify the text accordingly. The Agency notes that a comparable provision exists in the US AC.

comment *531* comment by: *Austro Control GmbH*

21A.96 Standard Changes and 21A.95
Comment
In gereral, a material equivalent to FAA AC 43.13 is highly supported. The NPA will work for standard changes but the CS for standard changes must be immediately available.

To follow the concept of a QE/NAA concept 21A.95 must be changed.
For ELA aircraft, a minor change can not involve safety at all, therefore it is proposed that minor changes may be approved by the combined organisation (or DOA or NAA or QE) without involving the Agency.
Proposal
Add to 21A.95
(c) for ELA1 aircraft by an approved organisation (combined or DOA or QE or NAA)

response *Partially accepted*

The Agency thanks the commentator for their support and agrees that the CS should be quickly available.
The standard change is deemed to be approved by the Agency when it is designed in accordance with the certification specification.
However, the Agency wishes to point out that those changes can only be approved by the Agency or by an appropriately approved design organisation.

comment *674* comment by: *DGAC France*

1a. COMMENT TO:

- ü **Draft Opinion(s)**

Amendment to Commission Regulation (EC) No. 1702/2003 Part 21

1b. AFFECTED PARAGRAPH:

21. A.96 and 21.A.436

2. PROPOSED TEXT:

Bien que la DGAC France soit d'accord sur le principe des modifications et réparations standard, utiliser la terminologie « spécifications de certification » semble surprenant. Les CS donnent habituellement des exigences réglementaires, pas un ensemble de dossiers de conception déjà approuvés. Ne pourrait on avoir une autre appellation ?
Néanmoins, le contenu des ces documents est de toute importance afin d'en évaluer les bienfaits simplificateurs des processus d'approbation de modification ou réparation. Une tâche réglementaire définissant ces CS devrait être inscrit au programme de travail de l'AESA et la DGAC recommande un groupe de travail impliquant l'industrie et les autorités pour faire avancer ce sujet.

Par ailleurs, la DGAC demande à l'agence de préciser que l'utilisation concrète au cas par cas de ces « CS » sera documenté de manière adéquate, en particulier pour permettre à un organisme CAMO de suivre l'état de navigabilité des aéronefs qu'il gère.

Courtesy translation:
Although DGAC France agrees on the principle of standard repairs and modifications, the use of the terminology of certification specification is a bit surprising. The CS usually gives airworthiness rules, not already approved airworthiness data. Can't there be another name?
Nevertheless, those document contents are important and shall be carefully written in order to optimize the benefits for leisure aviation in terms of repairs and modifications approvals. A rulemaking task shall be added to the EASA work programme and DGAC France suggests that a group of industry and NAA representatives shall be in charge of this task.

In addition, DGAC France asks EASA to clarify that the day by day use of this "CS" will be documented adequately, in particular to make sure a CAMO will be able to assess the continued airworthiness of the aircraft it manages.

response *Partially accepted*

The Agency agrees that present CS are airworthiness codes. However, the words certification specifications are broad enough to cover the present case.
The important issue is that such CS are issued and updated using the normal rulemaking process allowing stakeholders and NAA to express their views. The Agency does not exclude the possibility to set up groups for the update of the CS if the technological progress would make it advisable.
The CS cover the design aspects of the change or repairs. The installation of such changes or repairs will be done in accordance with Part-M.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart E p. 28

comment *77* ❖ comment by: *Dyn'aéro*

Dyn'Aero soutient ces propositions.
Dyn'Aero supports these proposals.

response *Noted*

The Agency thanks the commentator for their support

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart E - 21A.112B Demontstration of capability p. 28

comment *58* comment by: *John Tempest*

21A.112B (c)

Guidance material is required here as to the role of the QE. Although the applicant may submit a Certification Plan to EASA, it is presumed that part of the Certification Plan would need to identify the NAA or QE to be used to confirm compliance.

Attachment 2 for ELA 1 makes it clear that confirmation of compliance with the requirements will be necessary for ELA 1 (and of course ELA-2 will be subject to normal DOA procedures). However, this paragraph as-writted does not make it clear that compliance verification by NAA or QE is a requirement.

This is an important point to highlight because for the FAA/ASTM LSA rules and standards, compliance verification is left in the hands of the designer/manufacturer - no external validation is required. The FAA approach places responsibility directly in the hands of the manufacturer. However, I do not believe that this is the intention of this NPA.

response *Noted*

The EASA Management Board has not adopted yet the policy on the use of QE.

comment *77* ❖ comment by: *Dyn'aéro*

	Dyn'Aero soutient ces propositions. *Dyn'Aero supports these proposals.*
response	*Noted* The Agency thanks the commentator for their support.

comment	*148* comment by: *ENAC* The acceptance of change approved by owner/manufacturer without any recognised privileges to carry out this approval, appears in contrast with the spirit of Part 21.
response	*Noted* The text proposed by the Agency does not imply approval by the owner or manufacturer. The STC is still approved by the Agency. The proposed change is related to the demonstration of capability: it is achieved here by the approval of the certification programme by the Agency.

comment	*150* comment by: *ENAC* It could be difficult manage the matter, it is not in fact understood when on what basis, for the applicant it is to be decided to apply for ELA or for standard process and which limitations or privileges for the TC holder or for the owner are associated with the type certification and individual airworthiness certification in case of ELA process or normal process. The proposal NPA does not provide any indications. Will the C of A indicate that it applies to ELA category aircraft? It is not clear the position of the Agency in respect to ICAO Annexes. Will the envisioned C of A be issued according to ICAO Annex 8?
response	*Not accepted* Although called derogation for legal reasons, the proposal remains a normal process in Part-21. There is no reason therefore to make a special mention on the STC or the Cof A of the aircraft which remain ICAO Annex 8.

comment	*334* comment by: *Luftfahrt-Bundesamt* Same comment as to 21A.14 We propose the following change to 21A.112B c): (c) By way of derogation from paragraph (a) and (b), an applicant may elect for *compliance demonstration the verification by the Agency* for an STC on an aircraft, engine and propellers defined in paragraph 21A.14 (c):
response	*Not accepted* The proposal does not contain a demonstration of capability of the appplicant. This approach would put all the burden of demonstration of compliance on the Agency which would lead to confused responsibilities and increase the liability of the Agency.

comment	*533* comment by: *Austro Control GmbH*

Subpart E STC
Comments
The same comments as for TC applies also to STC. A DOA should not be required for STCs on ELA1.
Proposal
Amend as required.

response *Noted*

The text of the NPA is consistent with the comment. The DOA is not mandatory for ELA 1 (aircraft referrred to in Paragraph 21A.14 (c)).

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart E - 21A.116 Transferability p. 28

comment *7* comment by: *Francis Fagegaltier Services*

Apparently some words are missing, because the meaning of "except for aircraft defined in 21A.14 (c) has sought the Agency agreement" cannot be determined.

response *Accepted*

This comment has highlighted an oversight in the CRD Part I. The same issue but for TC was deemed covered by the change introduced by Opinion 03/2009 and therefore the proposal made for paragraph 21A.047 in this NPA has been withdrawn. The wording used here creates the same difficulties as commented on 21A.047 and should therefore be changed to be consistent with the wording proposed by Opinion 03/2009. This omission is covered by this CRD.

comment *60* comment by: *John Tempest*

Guidance material would be useful here to indicate that the TC holder may use a QE to oversee the requirements for airworthiness.

response *Noted*

The EASA Management Board has not adopted yet the policy for the use of Qualified Entities.

comment *77* ❖ comment by: *Dyn'aéro*

Dyn'Aero soutient ces propositions.
Dyn'Aero supports these proposals.

response *Noted*

The Agency thanks the commentator for their support. Please note however that the text will be changed but the intent will be kept.

comment *97* comment by: *René Fournier*

The modification suggested in this NPA 2008-07 differs from the wording suggested for this same paragraph in NPA 2008-06. So far, neither wording is very clear. It should be reviewed in line with the clarification to be made for paragraphs 21A.14 and 21A.44.

response | *Noted*

This comment has highlighted an oversight in the CRD Part I. The same issue but for TC was deemed covered by the change introduced by Opinion 03/2009 and therefore the proposal made for paragraph 21A.047 in this NPA has been withdrawn. The wording used here creates the same difficulties as commented on 21A.047 and should therefore be changed to be consistent with the wording proposed by Opinion 03/2009. This omission is covered by this CRD.

resulting text | A supplemental type-certificate shall only be transferred to a natural or legal person that is able to undertake the obligations of 21A.118A and for this purpose has demonstrated its ability to qualify under the criteria of 21A.112B or seek the Agency's agreement for the use of procedures setting out its activities to undertake these obligations for aircraft defined in 21A.14(c).

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart G - 21A.139 Quality System p. 28-30

comment | *8* comment by: *Francis Fagegaltier Services*

In the new subparagraph (c), in (c)(1)(i) there is reference to a "scope of approval". With regard to the subject which is "system for organisational review", there is some ambiguity. It might be clearer to specify "scope of production organisation approval".

response | *Accepted*

The concept of organisational reviews has been deleted following the comments received.

comment | *82* comment by: *Apex Aircraft*

Le 21A.139c) se réfère aux avions définis dans les paragraphes 21A.14b) et c). On retrouve là l'idée de catégories d'avions de moins de 1000 kg et de moins de 2000kg. La notion de "nouveau process" (ELA) semble oubliée au profit d'une nouvelle catégorie d'avion.

response | *Noted*

The Agency confirms that the ELA is a new process as it affects Part-21. There is a need to define the aircraft to which the process is applicable and therefore could be interpreted as categories.

comment | *116* comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high, that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience,

any rising of requirements / requirement of approvals can not be argued with additional safety. As a fact, reducing the hurdles leads to a much more efficient market self control, than could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries, where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II), it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Noted

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment

117 comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.*

Negative. The proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, which we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart G. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, as long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach POA privileges as defined in Subpart K, but limited to products coming within ELA 1, when deviating from the relevant paragraphs for the Quality System (21A.139 (a) (b) or (c)) on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response

Noted

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment

154 comment by: *ENAC*

It is not clear the benefit of the replacement of quality system with an organisational review. It remains in the obligations of the organisation to assess the conformity of the aircraft to the type design.
Is the envisioned organisation able to state the conformity in a way acceptable to the Authgority?
Are the requirements of the Reg. 216/2008 still satisfied?

response

Accepted

The concept of organisational review has been deleted following the comments received.

comment 174 comment by: *Alexander Eich*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart G. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach POA privileges as defined in Subpart K, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the Quality System (21A.139 (a) (b) or (c)) on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment 180 comment by: *Ingmar Hedblom*

The concept of not requiring a Quality system for production of ELA aircraft is supported since it is advantageous for small organisations.

However, the term "organisational review system" as used in draft proposal for 21A.139(c) is more defining a traditional production control system working on a continous basis. The term has here a different meaning compared to its use for maintenance organisations as now proposed in EASA Opinion 02-2008 amending regulation 2042/2003. In M.A.712, organisational reviews are something that is performed on a regular basis and not a daily activity. This different meaning of organisational reviews in two EASA regulations is confusing.

It is therefore suggested that the wording of 21A.139(c) should be "By derogation to....the quality system may be replaced by a Production Control System and the organisation shall demonstrate that it has established and is able to maintain a Production Control System.....
Corresponding changes in 21A.361.

response *Not accepted*

The concept of organisational reviews has been deleted following the comments received.

comment 198 comment by: *Walter Gessky*

21A.139 (c)

- Add after the last sentence:

The Production organization review system should be described in the

exposition.

- **(c)(1)**

Delete this part of paragraph(c).

Justification:

This is completely misleading and the so called Production Organisation review has the same content as the quality system.

It is sufficient when the organisation is required to describe the review system in the exposition.

response *Accepted*

The concept of organisational reviews has been deleted following the comments received.

comment *245* comment by: *Ronald MEYER*

Comment 6

Page 28 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart G - 21A.139 Quality System

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high, that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As a fact, reducing the hurdles leads to a much more efficient market self control, than could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries, where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II), it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *246* comment by: *Ronald MEYER*

Comment 7

Page 28 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart G - 21A.139 Quality System

Negative. The proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, which we can find in EASA world under ELA 1, in a lot of cases already have approved quality

standards manifesting the production capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart G. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, as long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach POA privileges as defined in Subpart K, but limited to products coming within ELA 1, when deviating from the relevant paragraphs for the Quality System (21A.139 (a) (b) or (c)) on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *256* ❖ comment by: *Gorden WIEGELS*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *263* comment by: *Gorden WIEGELS*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart G. So, when a valid approval

exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach POA privileges as defined in Subpart K, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the Quality System (21A.139 (a) (b) or (c)) on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *297* comment by: *Karg*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights - mostly also sold as LSA in FAA world - in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are already flying (LSA, homebuilt aircrafts, Annex II), it is proven that deregulation in general is not reason for less safety, much more it can even improve safety.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *298* comment by: *Karg*

Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart G - 21A.139 Quality System

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to

exercise the privileges as defined in Subpart G. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach POA privileges as defined in Subpart K, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the Quality System (21A.139 (a) (b) or (c)) on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response

Noted

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment

319 comment by: *TECNAM*

Comment 2 also valid here

response

Noted

Please see reply to comment No 308.

comment

320 comment by: *TECNAM*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart G. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach POA privileges as defined in Subpart K, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the Quality System (21A.139 (a) (b) or (c)) on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response

Noted

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment

338 comment by: *Luftfahrt-Bundesamt*

Topic: 21A.139 Quality system - Subparagraph (c)

Concern:
What is the difference between the quality system and the "Production Organisational review"? Further explanation required to define this kind of review. What are the benefits for the organisations establishing a review system instead of a quality system as the addressed subjects and elements are in principle the same?

response *Accepted*

The concept of organisational reviews has been deleted following the comments received.

comment *362* ❖ comment by: *O. Reinhardt / Flightdesign*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

This comment is also valid for several other locations as linked, and for the Who does what- Table, there section "organisational approval" (not possible to link exactly)

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *370* comment by: *O. Reinhardt / Flightdesign*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart G. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach POA privileges as defined in Subpart K, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the Quality System (21A.139 (a) (b) or (c)) on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *386* comment by: *Thomas Wendt*

Comment 12
Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart G - 21A.139 Quality System

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart G. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach POA privileges as defined in Subpart K, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the Quality System (21A.139 (a) (b) or (c)) on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *400* ❖ comment by: *Flight Design GmbH Matthias Betsch CEO*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with

additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Noted

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment

424 comment by: *Flight Design GmbH Matthias Betsch CEO*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart G. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach POA privileges as defined in Subpart K, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the Quality System (21A.139 (a) (b) or (c)) on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response

Partially accepted

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production

comment

472 comment by: *Tegelbeckers*

Comment 11
Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart G - 21A.139 Quality System
Comment 2 also valid here
Comment 12
Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart G - 21A.139 Quality System
Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.
Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not

identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart G. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.
Proposal:
A block (d) must be added, allowing to reach POA privileges as defined in Subpart K, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the Quality System (21A.139 (a) (b) or (c)) on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.
Comment 13
Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart K - 21A.307 Release of parts and appliances for installation
Enhance (c) so that for all commercial usage it is possible to install parts without explicit Form 1 only when they come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *493* comment by: *light-wings Oliver Liedmann*

Comment 2 also valid here.

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart G. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach POA privileges as defined in Subpart K, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the Quality System (21A.139 (a) (b) or (c)) on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment	*511* comment by: *aeroklaus* Comment 11 Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart G - 21A.139 Quality System Comment 2 also valid here
response	*Noted* Please see reply to comment No 502.

comment	*512* comment by: *aeroklaus* Comment 12 Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart G - 21A.139 Quality System Negative - the proposal as presented here is in the suitable direction, but not reaching far enough. Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart G. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only. Proposal: A block (d) must be added, allowing to reach POA privileges as defined in Subpart K, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the Quality System (21A.139 (a) (b) or (c)) on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.
response	*Noted* Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment	*534* comment by: *CAA CZ* Editorial change only: (c)(ii): Please delete following text: ... referred to in ~~sub-paragraph~~ 21A.145(c)(2) ~~[Approval Requirements]~~ and ultimately to the manager referred to in ~~sub-paragraph 21A.145(c)(1) ...~~ See 21A.139(b)(2).
response	*Accepted* The Agency will consider the editorial change.

comment	*542* comment by: *Austro Control GmbH* 21A139(c)

	Delete this paragraph. It is completey misleading. The so called production organisation review has the same content as the quality system and there is no difference.
response	*Accepted* The concept of organisational reviews has been deleted following the comments received.

comment	*566* comment by: *UK CAA* 21A.139(b) and (c) 21A.139(c)(1) states that "The control procedures need to include specific provisions for any life-limited parts". This is more demanding than 21A.139(b)(1), which refers to "critical parts". Is this intended?
response	*Noted* The concept of organisational reviews has been deleted following the comments received.

comment	*591* comment by: *klaus M* Comment 11 Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart G - 21A.139 Quality System Comment 2 also valid here
response	*Noted* Please see reply to comment No 582.

comment	*592* comment by: *klaus M* Comment 12 Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart G - 21A.139 Quality System Negative - the proposal as presented here is in the suitable direction, but not reaching far enough. Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart G. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only. Proposal: A block (d) must be added, allowing to reach POA privileges as defined in Subpart K, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the Quality System (21A.139 (a) (b) or (c)) on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.
response	*Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment 620 comment by: *Cessna Aircraft Company*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart G. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, as long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach POA privileges as defined in Subpart K, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the Quality System (21A.139 (a) (b) or (c)) on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment 636 comment by: *Martin Josef Warken*

Comment 11
Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart G - 21A.139 Quality System

Comment 2 also valid here

response *Noted*

Please see reply to comment No 628.

comment 637 comment by: *Martin Josef Warken*

Comment 12
Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart G - 21A.139 Quality System

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart G. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be

considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach POA privileges as defined in Subpart K, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the Quality System (21A.139 (a) (b) or (c)) on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *714* comment by: *procomposite*

And again:

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *736* comment by: *Oliver*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience,

any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *737* comment by: *Oliver*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart G. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach POA privileges as defined in Subpart K, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the Quality System (21A.139 (a) (b) or (c)) on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *761* comment by: *Air Marugan*

Comment 11

Comment 2 also valid here

response *Noted*

Please see CRD Part I paragraph 2.

comment *762* comment by: *Air Marugan*

Comment 12

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart G. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach POA privileges as defined in Subpart K, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the Quality System (21A.139 (a) (b) or (c)) on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production

comment *787* comment by: *Herbert HERGET*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high, that it can hold with those as found for Part 23 aircraft. =0 D There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As a fact, reducing the hurdles leads to a much more efficient market self control, than could be achieved by Agency control. This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing. In all countries, where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II), it is clearly proven that deregulation in general is not20a reason for less safety and can even improve safety.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

comment *788* comment by: *Herbert HERGET*

Negative. The proposal as presented here is in the suitable direction, but not reaching far enough. Companies already delivering to FAA world LSA certified aircraft, which we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these

are fully sufficient to exercise the privileges as defined in Subpart G. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, as long as the company deals with ELA 1 products only. Proposal: A block (d) must be added, allowing to reach POA privileges as defined20in Subpart K, but limited to products coming within ELA 1, when deviating from the relevant paragraphs for the Quality System (21A.139 (a) (b) or (c)) on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Noted*

Refer to CRD Part I paragraph (b) 3 and 4 relative to demonstration of capability for design and production.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart G - 21A.163 Privileges p. 30

comment *9* comment by: *Francis Fagegaltier Services*

Editorial : "for any" is duplicated.

response *Noted*

Thank you for spotting the mistake; however, the concept of organisational reviews is not retained. This proposal is withdrawn. For more explanations please see CRD Part I paragraph 4.

comment *77* ❖ comment by: *Dyn'aéro*

Dyn'Aero soutient ces propositions.
Dyn'Aero supports these proposals.

response *Noted*

The concept of organisational reviews is not retained. This proposal is withdrawn. For more explanations please see CRD Part I paragraph 4.

comment *101* comment by: *European Sailplane Manufacturers*

The European sailplane manufacturers clearly share the view of EASA of this changed wording for 21A.163 (e).

The new included privilege for ELA 2 (21A.14(c) aircraft) to maintain and repair products which this manufacturer has produced eliminates the burden of a seperate Part-M organisation approval as Subpart F organisation.

Nevertheless the manufacturers think that additionally the previlege to conduct the airworthiness reviews and to issue the regarding ARC should also be possible for ELA 1 manufacturers.
This would eliminate the need to apply for an Subpart G organisation according to Part-M and would perfectly be in-line with the aim of this NPA 2008-07.
Furthermoer it would be in-line with still existing national rules which also allowed exactly this privilege.

An last but not least a manufacturer and TC holder definitely has the experience, capability and means to conduct the reviews and issue the ARC.

response

Noted

The concept of organisational reviews is not retained. This proposal is withdrawn. For more explanations please see CRD Part I paragraph 4.

comment

158 comment by: *ENAC*

The NPA considers to give privileges to simplified design or/and production organisation. It appears not consistent with Reg. 216/2008 art. 5.2 (e) and Part 21 where the privileges are given in case of proven organisational capabilities (this NPA gives the privileges without any evaluation).

response

Noted

The concept of organisational reviews is not retained. This proposal is withdrawn. For more explanations please see CRD Part I paragraph 4.

comment

199 comment by: *Walter Gessky*

21A.163

Editorial:
For any ~~For any~~ product

response

Noted

Thank you for spotting the mistake; however, the concept of organisational reviews is not retained. This proposal is withdrawn. For more explanations please see CRD Part I paragraph 4.

comment

278 comment by: *Klaus Erger*

Comment 11
Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart G - 21A.139 Quality System

Comment 2 also valid here

Comment 12
Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart G - 21A.139 Quality System

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart G. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach POA privileges as defined in Subpart K, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the Quality System (21A.139 (a) (b) or (c)) on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

Comment 13
Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart K - 21A.307 Release of parts and appliances for installation

Enhance (c) so that for all commercial usage it is possible to install parts without explicit Form 1 only when they come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Noted*

The concept of organisational reviews is not retained. This proposal is withdrawn. For more explanations please see CRD Part I paragraph 4.

comment *336* comment by: *Luftfahrt-Bundesamt*

Topic: Production privileges according to 21A.163 versus 21A.383

Concern:
21A.383 e) gives the following maintenance privilege to a combined design and production organisation according to Part 21 Subpart L:

"Repair and overhauls products, parts or appliances which are included in its scope of approval and issue an Authorised Release Certificate (EASA Form 1) in respect of that maintenance"

For production organisations under Subpart G such complex maintenance privilege is not granted. 21A.163 e) refers just to products under 21A.14(c) (ELA1). Finally it does not include parts and activities on ELA2 -products.
Is there any justification for these differences between the subpart G and L of Part 21?

response *Noted*

The concept of organisational reviews is not retained. This proposal is withdrawn. For more explanations please see CRD Part I paragraph 4.

comment *359* comment by: *Aero-Club of Switzerland*

Please delete one of the two "for any".

response *Noted*

Thank you for spotting the mistake; however, the concept of organisational reviews is not retained. This proposal is withdrawn. For more explanations please see CRD Part I paragraph 4.

comment 532 comment by: CAA CZ

Editorial change only: Please renumber the propsed subparagraph to (f). Subpara (e) is already used in the current text of the regulation.

response *Noted*

Thank you for spotting the mistake; however, the concept of organisational reviews is not retained. This proposal is withdrawn. For more explanations please see CRD Part I paragraph 4.

comment 543 comment by: Austro Control GmbH

21A.163
Typo in first sentence.

Change paragraph to:
"For any ~~for any~~ product ..."

response *Noted*

The concept of organisational reviews is not retained. This proposal is withdrawn. For more explanations please see CRD Part I paragraph 4.

comment 567 comment by: UK CAA

21A.163(e)	21A.163(e) should include components in the same way that these are included in 21A.383(e). **Suggested text** For any product referred to in 21A.14(c), maintain and repair the product or associated parts & appliances that they have produced and issue a certificate of release to service (EASA Form 53 or EASA Form 1 as appropriate) in respect of that maintenance.

response *Noted*

The concept of organisational reviews is not retained. This proposal is withdrawn. For more explanations please see CRD Part I paragraph 4.

comment 568 comment by: UK CAA

21A.163 and 21A.383; parts release.	If components are to be released following maintenance by a production organisation the instructions for the EASA Form 1 will need to be amended in Part 21 to cater for maintenance release using the right-hand side of the form. The privileges being proposed in this Opinion include those that are available to Part M and Part 145 organisations, and the holders of part 66 licences. But the proposal does not specify compliance with the relevant Part M/145/66 requirements. This does not provide an appropriate level of regulation and may be unfair to the existing holders of those approvals and licences. If these privileges are to be given then the relevant requirements of Part M Subpart F

should be applied: i.e.- M.A.605(c); M.A.606(g); M.A.607; M.A.608(a); M.A.609; M.A.610; M.A.611; M.A.612; M.A.613; M.A.614; M.A.615.

response *Noted*

The concept of organisational reviews is not retained. This proposal is withdrawn. For more explanations please see CRD Part I paragraph 4.

comment *663* comment by: *European Sailplane Manufacturers*

Typo mistake:
"for any" has been written twice

response *Noted*

Thank you for spotting the mistake; however, the concept of organisational reviews is not retained. This proposal is withdrawn. For more explanations please see CRD Part I paragraph 4.

comment *677* comment by: *DGAC France*

1a. COMMENT TO :

- ü **Draft Opinion(s)**

Amendment to Commission Regulation (EC) No. 1702/2003 Part 21

1b. AFFECTED PARAGRAPH :
21.A.35,
21.A.163
21.A.353

2. PROPOSED TEXT:

- 21A.35 : A line return is missing after « Agency » before the paragraph (b).
- 21A.163 : delete one « for any »
- 21A.353 : delete one (v)

3. JUSTIFICATION:

These are typos.

response *Noted*

The concept of organisational reviews is not retained. This proposal is withdrawn. For more explanations please see CRD Part I paragraph 4.

comment *698* comment by: *Evektor*

EVEKTOR position:
typist's error- twice "*for any*"

response *Noted*

Thank you for spotting the mistake; however, the concept of organisational reviews is not retained. This proposal is withdrawn. For more explanations please see CRD Part I paragraph 4.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart K - 21A.307 Release of parts and appliances for installation p. 30

comment *22* comment by: *FFVV*

La FFVV apprécie et approuve la possibilité offerte de limiter le formalisme des FORM 1 pour les pièces détachées des ELA1 et propose que : L'approbation de la conception des pièces peut être faite par les organismes disposant d'un manuel approuvé de Procédure Alternarive à l'Organisme de Conception - (comme c'est le cas pour la FFVV.)

response *Noted*

The Agency thanks you for your support.
There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I.

comment *61* comment by: *John Tempest*

Clarification may be required here if the definition of non-commercial operation includes flying training or hire by members of a member's aero club.

response *Noted*

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I. The reference to commercial/non-commercial is not necessary anymore due to the changed text.

comment *77* ❖ comment by: *Dyn'aéro*

Dyn'Aero soutient ces propositions.
Dyn'Aero supports these proposals.

response *Noted*

The Agency thanks you for your support.
There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I.

comment *96* comment by: *René Fournier*

The proposed wording for the new subparagraphs (b) and (c) should be revised.

In the two subparagraphs, the expression "complying with one of the criteria of" is imprecise. So as to eliminate ambiguity and ensure consistency with the wording proposed for 21A.39 (c), it would be advisable to use instead the words "defined by".

In line with my comments on the Explanatory Note, please also allow me to also suggest to replace in both subparagraphs concerned the proposed words

"produced in conformity with an approved design under the responsibility of the aircraft owner when installed in his aircraft" by the following wording: "produced in conformity with an approved design and installed on an aircraft under the responsibility of the aircraft owner".

Last but not least, to make all the provisions consistent, a reference to 21A.307 should be added in 21A.130 (a). Likewise, a reference to Part 21 should be added in MA.501 (a), as suggested in the Draft Commission Regulation attached to Opinion 2/2008.

response *Partially accepted*

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to the CRD Part I.
The first change proposed by the commentator is accepted.
The second one is not accepted as in this case many aircraft would be outside the control of the owner. The control of the owner (installed on their own aircraft) is an important element of the proposal.

comment *118* comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.*

Enhance (c) so that for all commercial usage it is possible to install parts without explicit Form 1 only when they come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Not accepted*

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I.
The proposal made by the commentator would give an advantage to original manufacturers. The Agency believes that the changed text attached to the CRD Part I gives an appropriate balance and provides more flexibility.

comment *149* comment by: *Apex Aircraft*

21A.307
Le propriétaire d'un aéronef pourra installer sous sa propre responsabilité certaines pièces sur son aéronef sous la condition que la pièce soit conforme à une définition approuvée.

Comment pourra-t-il juger que la pièce en sa possession est conforme à une définition approuvée?
Il aura accès comme tout le monde à l'aspect dimensionnel de la définition, mais qu'en est-il des autres aspects de la définition (les définitions de matières, de traitements thermiques, de traitement de surface, voire parfois des données de process...).

Cette nouvelle disposition ne change donc pas grand chose.

response *Noted*

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to the CRD Part I.
Approved design means in accordance with Part-21. The benefit is not on design approval but on the production release aspects.

comment

155 comment by: *ENAC*

It is not clear what this the scope to permit the owner or everybody to install part produced in conformity to any approved design data and without any production organisational approval (Form 1).
Is the approved design approved under STC process by EASA?
Has the use of this process an impact on the C. of A.?
Will the C. of A. be converted in PtF or R. CoA?
It seems not consistent with Reg. 216/2008 art. 5.2(c).
The possibility the US owner / operators have to produce their own parts is mainly related to old and orphan aircraft for which it is difficult to find replacement parts and for which a PtF is envisioned.
It seems on the basis of question 1 sentence that the par. 21A.307 is applicable for non commercial use of aircraft.

response

Noted

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to the CRD Part I.
The design will continue to be approved in accordance with Part-21. This is consistent with the quoted paragraph of the Basic Regulation.
There is also no reason that the C of A should be affected.
The changed text has made the discussion commercial/non-commercial not necessary.

comment

156 comment by: *ENAC*

In the case the installation is not considered a replacement should be dealt according to the design change procedure.
Who is responsible to identify and approve the critical parts?
Who control the process?

response

Noted

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I.
The design should be approved in accordance with Part-21.
The definition of life-limited parts is done by the designer during the certification process.

comment

173 comment by: *Apex Aircraft*

21 A.307c)
Il ressort de ce paragraphe que sur certains aéronefs certifiés, de moins de 1000 kg (process ELA1), il serait possible de changer un longeron, une voilure, etc ... sans EASA form1. Il appartiendra au propriétaire de vérifier la conformité de la pièce à une définition approuvée (celle du détenteur du TC?, mais comment la possèderait-il?).

	Le chapitre ne donne aucun élément sur la nécessité de vérifier la navigabilité de la pièce! Le détenteur du TC devra-t-il cependant continuer à assurer le suivi de navigabilité pour un TC dont il ignore tout de la navigabilité des pièces utilisées sur la flotte en service ?
response	*Accepted* There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to the CRD Part I. The concern expressed is understood and the changed text has produced a better balance.

comment	*175* comment by: *Alexander Eich* Enhance (c) so that for all commercial usage it is possible to install parts without explicit Form 1 only when they come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.
response	*Not accepted* There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I. The proposal made by the commentator would give an advantage to original manufacturers. The Agency believes that the changed text attached to CRD Part I gives an appropriate balance and provides more flexibility.

comment	*200* comment by: *Walter Gessky* **Subpart K, 21A.307** Add to (b) and (c) (b) in the case of aircraft complying with one of the criteria of 21A.14(b), and except for **engines, propellers,** life limited parts and appliances, **TSO parts,** parts of the primary structure and parts of the flight controls, produced in conformity with an approved design under the responsibility of the aircraft owner when installed in his aircraft; or (c) in the case of aircraft complying with one of the criteria of 21A.14(c), **except for engines and propellers and TSO parts,** produced in conformity with an approved design under the responsibility of the aircraft owner when installed in his aircraft; and **Comment:** The proposal is generally acceptable, but for products like engine and propeller and some parts like altimeter, airspeed indicator, certain NAV equipment a minimum technical standard is essential for safety, and as long as this aircraft flying in the same airspace, a minimum technical standard must be guaranteed.
response	*Not accepted* There have been many comments on this proposal and the text has been

changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to the CRD Part I.
Engine and propellers are products, not parts and appliances. The affected paragraph is related to parts and appliances.
Concerning ETSO, the rationale put forward by the commentator is that a minimum standard must be retained. The proposal from the Agency still requires an approved design in accordance with Part 21. The alleviation is only on the production release.

comment *264* comment by: *Gorden WIEGELS*

Enhance (c) so that for all commercial usage it is possible to install parts without explicit Form 1 only when they come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Not accepted*

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I.
The proposal made by the commentator would give an advantage to original manufacturers. The Agency believes that the changed text attached to CRD Part I gives an appropriate balance and provides more flexibility.

comment *299* comment by: *Karg*

Enhance (c) so that for all commercial usage it is possible to install parts without explicit Form 1 only when they come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Not accepted*

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I.
The proposal made by the commentator would give an advantage to original manufacturers. The Agency believes that the changed text attached to CRD Part I gives an appropriate balance and provides more flexibility.

comment *321* comment by: *TECNAM*

Enhance (c) so that for all commercial usage it is possible to install parts without explicit Form 1 only when they come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response | *Not accepted*

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I.
The proposal made by the commentator would give an advantage to original manufacturers. The Agency believes that the changed text attached to CRD Part I gives an appropriate balance and provides more flexibility.

comment | *335* comment by: *Luftfahrt-Bundesamt*

Topic: „Limiting the number of parts that need a Form 1" (see introduction and 21A.307 (b) and (c))

Concerns:
- In general we do not support the proposed idea to grant exemptions from the requirements of a Form 1 for a part. This exemption might generate a lot of confusion and we see no benefit for the safety.
- It is not clear, through what kind of information these exemptions are easily accessible to the aircraft owner. If it is really necessary to grant these exemptions, we would recommend a document approved/issued by the design holder of the product which clearly identifies the forms required for the different types of parts (Standard part / Life limited part/ parts which may be produced by the end user or owner). If such a document is not available, who takes the decision that whether a part might be produced by the owner or not?
- Is there any kind of certificate/statement required from the aircraft owner that his produced part complies with the approved design?
- The owner might just own the aircraft and not operate the aircraft. Therefore it might be useful to give the privilege/responsibility for the installation of part without a Form 1 to the operator of the aircraft instead of the owner.
- What about parts for appliances. Somebody may read the rule in a way, that they are not exempted from the privileges given through 21A.307 (b) and (c). If appliances are excluded this should also apply to parts thereof.

response | *Noted*

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I.
The rule defines only the main principles. The Agency agrees that more details need to be provided in an AMC. This is planned by task MDM.032 (d) that is due to finish in 2013.

comment | *371* comment by: *O. Reinhardt / Flightdesign*

Enhance (c) so that for all commercial usage it is possible to install parts without explicit Form 1 only when they come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response | *Not accepted*

There have been many comments on this proposal and the text has been

changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I.
The proposal made by the commentator would give an advantage to original manufacturers. The Agency believes that the changed text attached to CRD Part I gives an appropriate balance and provides more flexibility.

comment *387* comment by: *Thomas Wendt*

Comment 13
Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart K - 21A.307 Release of parts and appliances for installation

Enhance (c) so that for all commercial usage it is possible to install parts without explicit Form 1 only when they come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Not accepted*

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I.
The proposal made by the commentator would give an advantage to original manufacturers. The Agency believes that the changed text attached to CRD Part I gives an appropriate balance and provides more flexibility.

comment *425* comment by: *Flight Design GmbH Matthias Betsch CEO*

Enhance (c) so that for all commercial usage it is possible to install parts without explicit Form 1 only when they come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Not accepted*

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I.
The proposal made by the commentator would give an advantage to original manufacturers. The Agency believes that the changed text attached to CRD Part I gives an appropriate balance and provides more flexibility.

comment *494* comment by: *light-wings Oliver Liedmann*

Enhance (c) so that for all commercial usage it is possible to install parts without explicit Form 1 only when they come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon

initial installation.

response *Not accepted*

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I.
The proposal made by the commentator would give an advantage to original manufacturers. The Agency believes that the changed text attached to CRD Part I gives an appropriate balance and provides more flexibility.

comment *513* comment by: *aeroklaus*

Comment 13
Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart K - 21A.307 Release of parts and appliances for installation
Enhance (c) so that for all commercial usage it is possible to install parts without explicit Form 1 only when they come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Not accepted*

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I.
The proposal made by the commentator would give an advantage to original manufacturers. The Agency believes that the changed text attached to CRD Part I gives an appropriate balance and provides more flexibility.

comment *513* comment by: *aeroklaus*

Comment 13
Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart K - 21A.307 Release of parts and appliances for installation

Enhance (c) so that for all commercial usage it is possible to install parts without explicit Form 1 only when they come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Not accepted*

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I.
The proposal made by the commentator would give an advantage to original manufacturers. The Agency believes that the changed text attached to CRD Part I gives an appropriate balance and provides more flexibility.

comment 537 comment by: *Austro Control GmbH*

Subpart K
Comment
The proposal is generally acceptable, except for major parts such as engine and propeller and TSO parts (e.g. COMM ,NAV, altimeter, airspeed equipment).
As long as this aircraft are flying in the same airspace, a minimum technical standard must be guaranteed.
The existing marking in 21A.307 (b) is missing.

Proposal
21A.307:
add to NPA (b) and (c): "... except for engine, propeller and TSO parts".
add old marking of 21A.307(b)

response *Not accepted*

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I.
Engine and propellers are products, not parts and appliances. The affected paragraph is related to parts and appliances.
Concerning ETSO, the rationale put forward by the commentator is that a minimum standard must be retained. The proposal from the Agency still requires an approved design in accordance with Part 21. The alleviation is only on the production release.

comment 593 comment by: *klaus M*

Comment 13
Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart K - 21A.307 Release of parts and appliances for installation
Enhance (c) so that for all commercial usage it is possible to install parts without explicit Form 1 only when they come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Not accepted*

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I.
The proposal made by the commentator would give an advantage to original manufacturers. The Agency believes that the changed text attached to CRD Part I gives an appropriate balance and provides more flexibility.

comment 638 comment by: *Martin Josef Warken*

Comment 13
Page 30 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart K - 21A.307 Release of parts and appliances for installation

Enhance (c) so that for all commercial usage it is possible to install parts

without explicit Form 1 only when they come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response

Not accepted

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I.
The proposal made by the commentator would give an advantage to original manufacturers. The Agency believes that the changed text attached to CRD Part I gives an appropriate balance and provides more flexibility.

comment

651 comment by: *Cessna Aircraft Company*

Enhance (c) so that for all commercial usage it is possible to install parts without explicit Form 1 only when they come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response

Not accepted

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I.
The proposal made by the commentator would give an advantage to original manufacturers. The Agency believes that the changed text attached to CRD Part I gives an appropriate balance and provides more flexibility.

comment

715 comment by: *procomposite*

Enhance (c) so that for all commercial usage it is possible to install parts without explicit Form 1 only when they come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response

Not accepted

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I.
The proposal made by the commentator would give an advantage to original manufacturers. The Agency believes that the changed text attached to CRD Part I gives an appropriate balance and provides more flexibility.

comment

738 comment by: *Oliver*

Enhance (c) so that for all commercial usage it is possible to install parts

without explicit Form 1 only when they come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Not accepted*

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I.
The proposal made by the commentator would give an advantage to original manufacturers. The Agency believes that the changed text attached to CRD Part I gives an appropriate balance and provides more flexibility.

comment *763* comment by: *Air Marugan*

Comment 13
Enhance (c) so that for all commercial usage it is possible to install parts without explicit Form 1 only when they come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Not accepted*

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I.
The proposal made by the commentator would give an advantage to original manufacturers. The Agency believes that the changed text attached to CRD Part I gives an appropriate balance and provides more flexibility.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) p. 30

comment *62* comment by: *John Tempest*

I strongly support the concept of a combined DOA/POA, providing that the total approval fee will be low (eg, half the total fee that would be required for individual DOA and POA approvals).

response *Noted*

comment *102* comment by: *European Sailplane Manufacturers*

The manufacturers applaud the now taken approach to make organisation certification easier than it is today within Part 21.

But beside the special problem with the overlapping responsibilities of EASA and NAA (see seperate comment) two important details have to be observed if this concept really should lead to a less stringent environment for ELA

	manufacturers: A) Fees & charges: Today the fees for certification and upholding the approvals for design / production / maintenance organisation has increased unduely in comparison to the status before Part 21 became active. Neither have the manufacturers the means to increase their income or their efficiency due to the new rules nor has the changed administration of EASA and NAA´s led to any safety benefits. The result is simply added effort on the side of the manufacturers and therefore increased prices for the customers. Therefore the fees & charges system has to adapted in a way that General Aviation has not to pay this undue share of authority fees because otherwise the proposed alleviations will not result into the positive effects hoped for. The momentary euphory of manufacturers which are today outside of the EASA responsibilty has really seen also under the perpective that those companies simply have not yet experienced this financial burden. If EASA and also the European Commission understand now better how important General Aviation could be for Europe this possibility of alleviation gexisting burdens must not be forgotten (even if it is outside the scope of this NPA 2008-07). B) Transfer of existing organisation approvals into a Subpart L "PDOA": All manufacturers are also TC holders therefore they have already an POA and (in most cases) an ADOA or (sometimes) a DOA. It is necessary that EASA gives these companies a direct way of converting their existing approvals into a PDOA. Existing experience with POA / ADOA / DOA approval procedures shows that the effort for these processes takes unduely large amount of manpower (and finances) from these typically very small companies which is taken away from their primary tasks. So a direct conversion should be possible instead as a complete new round of application - handbook-writing - audit - approval. The possible counter argument that existing ADOA privileges do not include the PDOA privileges is not valid. If for ELA 1 aircraft no organisation approval for the TC holder is now considered to be sufficient then an ADOA could definitely be considered sufficient to hold those privileges. Additionally many of the sailplane manufacturers were already holder of national DOA (before Part 21) and have been reduced in their privileges only because of changed wording in Part 21 in comparison to former JAR-21. Or in other words: these companies already had those privileges and showed that they were competent and safe working with them. Therefore a holder of POA and ADOA / DOA should have the option to convert direct these approvals into the new Subpart L PDOA.
response	*Noted*

Fees and charges:
Please refer to paragraph (a) 1 of CRD Part I.
Combined approval:
The possibility of a 'direct' transfer as suggested by the commentator is difficult due to the sharing of responsibilites betweeen the Agency and NAAs. Credit for the existing approvals would be granted when finding compliance with Sub-part L.

comment *201* comment by: *Walter Gessky*

Subpart L could be deleted. Will only complicate the system and seems to be not having any benefits. See the general comment.

response *Not accepted*

There is support from industry for such approval, and benefits in the form of reduced audit burden do exist: therefore, despite the complexity of such approvals , the Agency does not agree to delete Sub-part L.

comment *459* comment by: *www.fascination-pilots.de*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart G. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach POA privileges as defined in Subpart K, but limited to products falling under ELA 1, when deviating from the relevant paragraphs for the Quality System (21A.139 (a) (b) or (c)) on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Noted*

Rather than accepting the standards mentioned by the commentator, we have now developed a concept of simplified DOA.

comment *523* comment by: *Austro Control GmbH*

General comment to Subpart L - Combined Approval

The typical technical organisation in the GA ELA1 Group has 5 employees with different engineering and mechanical background. The scope of this kind of organisations normally cover:

- Maintenance
- Engineering for minor changes and repairs
- Design and Production of some airplanes as TC Holder

- Production and sale of spare parts

Only this wide range of activities allow those organisations to operate economically. There is no safety concern.
This might be a key Element in ELA1, to habve only one organisation!

Proposal:
Delete Subpart L.
Create a new organisational approval which may have a scope of work for maintenance, production, design and CAMO (ARC privilege) for ELA 1. One Handbook for all capablilities.

response *Noted*

The description given is correct but this will be even more complex than the one proposed.

comment *569* comment by: *UK CAA*

Subpart L - Title — As maintenance privileges are proposed in the NPA, the word "maintenance" should be in the title.
Suggested text
SUBPART L - Combined Approval of Organisations Responsible for Design, Production and Maintenance of aircraft defined in Paragraph 21A.14(b) and (c)

response *Noted*

Maintenance privilege has been brought back to the present privilege for POA. Please see CRD Part I paragraph 5.

comment *684* ❖ comment by: *Evektor*

EVEKTOR position:
Combined DOA/POA and DOA AP "*with privileges*" must me detailly explained in AMC/GM if the privileges would be different to current DOA procedures.
For combined DOA/POA would be very important to assure the same level of investigation demands round the EU. Detailed AMC/GM to combinated DOA/POA would be necessary.

response *Noted*

AMC material will be developed as appropriate under Task MDM.032 (d).

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.351 Scope p. 30

comment *69* comment by: *European Sailplane Manufacturers*

The sailplane manufacturers appreciate very much the approach taken by EASA to make the application process and later renewal of design & production organisations easier than it is nowadays.

Nevertheless some weak points of this concept are already visible which have to be pointed out:

1. Per basic regulation the responsibility for supervision of design organisation lies with EASA whereas NAA are responsible for the production organisations.
2. Therefore the in NPA 2008-07 proposed combined "DPOA" will only work efficiently for the applicants if both authorities (EASA and the according NAA) can agree upon a joint process or even better if one authority delegates the own field of responsibility to the other authority.
3. Otherwise the applicant still has to deal with:
   - contact with two different authorities
   - audits which are splitted
   - different interpretation of Part 21 by the authorities
   - higher costs because of fees by two authorities

Therefore the sailplane manufacturers urge EASA herewith to find and propose a way of installing the PDOA which eliminates this need for cooperation between EASA and NAA.

Either the required cooperation should be organised automatically "behind the scenes" without the need for the applicant to make regarding applications and administrative burden.

Or (better) it should be a clear decision and regulation that such a PDOA approval / supervision will be handled by one authority alone.

The manufacturers would clearly prefer the second option.
(Additionally this would make Part 21 easier to work with as the required cooperation now makes paragraphs 21A. 355 / 357 / 363 / 367 / 369 / 371 / 373 / 375 / 377 / 379 undue difficult to understand and to apply...)

If neither option is possible the basic idea of this NPA and the according rulemaking activity of "simpler regulation for simple aircraft" has clearly failed in this vital point of interest.

It has to be remembered that nearly all manufacturers state not so much requirements with their product certification as major hurdle but that the costs and effort of organisation certification is unacceptable high.

response

Noted

Please see CRD Part I paragraph 5.

comment

77 ❖ comment by: *Dyn'aéro*

Dyn'Aero soutient ces propositions.
Dyn'Aero supports these proposals.

response

Noted

The Agency thanks the commentator for their support.

comment

164 comment by: *Apex Aircraft*

Le 21A.351 se réfère aux avions définis dans les paragraphes 21A.14b) et c). On retrouve là l'idée de catégories d'avions de moins de 1000 et 2000 kg. La notion de "nouveau process" (ELA) semble oubliée au profit d'une nouvelle catégorie d'avion.

response

Noted

The Agency confirms that the ELA is a new process as it affects Part-21. There is a need to define the aircraft to which the process is applicable and therefore could be interpreted as categories.

comment *460* comment by: *www.fascination-pilots.de*

Enhance (c) so that for all commercial usage it is possible to install parts without explicit Form 1 only when they come with a release certificate from the aircraft manufacturer. These aircraft manufacturer released parts must not have a Form 1 from the original supplier to the aircraft manufacturer, but they must undergo the same quality inspection process that this specific part undergoes to be allowed to be installed by the aircraft manufacturer upon initial installation.

response *Noted*

There have been many comments on this proposal and the text has been changed: for an explanation of the changes please see CRD Part I paragraph 7 and the resulting text attached to CRD Part I.
The proposal made by the commentator would give an advantage to original manufacturers. The Agency believes that the changed text attached to CRD Part I gives an appropriate balance and provides more flexibility.

comment *696* comment by: *Deutscher Aero Club e.V. (DAeC)*

DAeC very much welcomes the possibility to have a combined DOA and POA approval. But as NAA are responsible for the approval and oversight of POA EASA is responsible for DOA. This splitting is likely to result in additional administrative burden when all three parties have to coordinate their activities. DAeC proposes to transfer the responsibility for combined DOA & POA organisations to EASA directly.

response *Noted*

The Agency thanks the commentator for their support.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.353 Eligibility p. 31

comment *10* comment by: *Francis Fagegaltier Services*

21A.353 (a), which is de facto open to any person, seems to be conflicting with 21A.351 (a), which intents to limit the eligibility !

response *Noted*

21A.353 (a) defines the eligibility (who can apply) and 21A.351 establishes the scope of this subpart (for what aircraft).

comment *11* comment by: *Francis Fagegaltier Services*

There are two subparagraphs "v", one being empty, and there is a text at the end finishing with an "and".
What is the really proposed text ?

response | *Accepted*

Editorial mistake corrected in CRD Part I.

comment | *83* comment by: *Apex Aircraft*

Le 21A.353 est incomplet et doit être revisé (le chapitre se termine par "and")

response | *Accepted*

Editorial mistake corrected in CRD Part I.

comment | *536* comment by: *CAA CZ*

Editorial change only: Please delete following text:
iv) ...
~~v)~~
v) ~~Hold or have applied for~~ an approval...

It is specified above in (b)

response | *Accepted*

Editorial mistake corrected in CRD Part I.

comment | *665* comment by: *European Sailplane Manufacturers*

Typo mistake:
subpara v) is written twice

response | *Accepted*

Editorial mistake corrected in CRD Part I.

comment | *678* comment by: *DGAC France*

1a. COMMENT TO :

- ü **Draft Opinion(s)**

Amendment to Commission Regulation (EC) No. 1702/2003 Part 21

1b. AFFECTED PARAGRAPH :
21.A.35,
21.A.163
21.A.353

2. PROPOSED TEXT:

- 21A.35 : A line return is missing after « Agency » before the paragraph (b).
- 21A.163 : delete one « for any »
- 21A.353 : delete one (v)

3. JUSTIFICATION:

These are typos.

response | *Accepted*

Editorial mistake corrected in CRD Part I.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.355 Application p. 31

comment *202* comment by: *Walter Gessky*

21A. 355 Application
Delete the following:
"Each application.....and Competent Authority or ~~Agency when the Member State has made use of article 20 (2) (b) (ii) of the Basic Regulation~~ in a form....."
Justification:
The reference to the basic regulation can be deleted and must not be mentioned. MS can anytime request EASA to issue POA approvals.

response *Not accepted*

The text reflects the possible options for the sake of clarity.

comment *544* comment by: *Austro Control GmbH*

21A. 355 Application

Change the paragraph to:
"Each application.....and Competent Authority or ~~Agency when the Member State has made use of article 20 (2) (b) (ii) of the Basic Regulation~~ in a form ..."

The difference in the fees and charges regulation of EASA and the several member states are too high. Some member states even do not have fees for the oversight of the approvals.
If the article 20 (2)(b)(ii) of the Basic Regulation will be used by a member state is any time possible and must not be mentioned here.

response *Not accepted*

The text reflects the possible options for the sake of clarity.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.357 Issue of Approval p. 31

comment *160* comment by: *ENAC*

Today Reg. 216/2008 gives the responsibility for the approval and oversight of production organisation to NAA and of design organisation to EASA. The par. 21A.357 does not appear in compliance with the Reg. 216/2008.

response *Not accepted*

The paragraph indicates clearly that the Agency can only issue the combined approval when it is in line with the Basic Regulation.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.359 Design Assurance System p. 31-32

comment

130 comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high, that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As a fact, reducing the hurdles leads to a much more efficient market self control, than could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries, where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II), it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Not accepted

Acceptance of designers that "hold" an ASTM or ISO qualification cannot be seen as an "approved" alternative to a DOA. These "approvals" are not issued and controlled as required by the Basic Regulation. It would however be possible to benefit both in content and time from the implementation of these standards by showing that the implemented procedures comply (partly) with the DOA requirements of Part-21 Subpart J. This could be reflected in an AMC to be developed under task MDM.032 (d).

comment

176 comment by: *Alexander Eich*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under

ELA 1 as alternative to (a) or (b) or (c) , when deviating from the relevant paragraphs for the design assurance system but having a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Not accepted*

Please see reply to comment No 130.

comment *247* comment by: *Ronald MEYER*

Comment 8
Page 31/32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.359 Design Assurance System

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high, that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As a fact, reducing the hurdles leads to a much more efficient market self control, than could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries, where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II), it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Not accepted*

Please see reply to comment No 130.

comment *248* comment by: *Ronald MEYER*

Comment 9
Page 31/32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.359 Design Assurance System

Negative. The proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, which we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical

way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, as long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart L within combined DOA/POA process limited to products coming within ELA 1 as alternative to (a) or (b) or (c) , when deviating from the relevant paragraphs for the design assurance system but having a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Not accepted*

Please see reply to comment No 130.

comment *256* ❖ comment by: *Gorden WIEGELS*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Not accepted*

Please see reply to comment No 130.

comment *265* comment by: *Gorden WIEGELS*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must

be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b) or (c) , when deviating from the relevant paragraphs for the design assurance system but having a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response

Not accepted

Please see reply to comment No 130.

comment

279 comment by: *Klaus Erger*

Comment 14
Page 31/32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.359 Design Assurance System

Comment 2 also valid here

Comment 15
Page 31/32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.359 Design Assurance System

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b) or (c) , when deviating from the relevant paragraphs for the design assurance system but having a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

Comment 16
Page 32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of

aircraft defined in Paragraph 21A.14(b) and (c) - 21A.361 Production Organisational Review

Comment 2 also applies here

Comment 17
Page 32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.361 Production Organisational Review

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (c) must be added, allowing to reach POA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b), when deviating from the relevant paragraphs for the Production Organizational Review on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response

Not accepted

Please see reply to comment No 130.

comment

300 comment by: *Karg*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights - mostly also sold as LSA in FAA world - in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are already flying (LSA, homebuilt

aircrafts, Annex II), it is proven that deregulation in general is not reason for less safety, much more it can even improve safety.

response *Not accepted*

Please see reply to comment No 130.

comment *301* comment by: *Karg*

Page 31/32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.359 Design Assurance System

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
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response *Not accepted*

Please see reply to comment No 130.

comment *322* comment by: *TECNAM*

Comment 2 also valid here

response *Not accepted*

Please see reply to comment No 130.

comment *323* comment by: *TECNAM*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists

following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
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response

Not accepted

Please see reply to comment No 130.

comment

362 ❖ comment by: *O. Reinhardt / Flightdesign*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

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This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

This comment is also valid for several other locations as linked, and for the Who does what- Table, there section "organisational approval" (not possible to link exactly)

response

Not accepted

Please see reply to comment No 130.

comment

372 comment by: *O. Reinhardt / Flightdesign*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise

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response *Not accepted*

Please see reply to comment No 130.

comment *388* comment by: *Thomas Wendt*

Comment 14
Page 31/32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.359 Design Assurance System

Comment 2 also valid here

Comment 15
Page 31/32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.359 Design Assurance System

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

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response *Not accepted*

Please see reply to comment No 130.

comment

400 ❖ comment by: *Flight Design GmbH Matthias Betsch CEO*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

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In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Not accepted

Please see reply to comment No 130.

comment

422 comment by: *Flight Design GmbH Matthias Betsch CEO*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

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response

Not accepted

Please see reply to comment No 130.

comment 461 comment by: www.fascination-pilots.de

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b) or (c) , when deviating from the relevant paragraphs for the design assurance system but having a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Not accepted*

Please see reply to comment No 130.

comment 473 comment by: Tegelbeckers

Comment 14
Page 31/32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.359 Design Assurance System
Comment 2 also valid here
Comment 15
Page 31/32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.359 Design Assurance System
Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.
Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.
Proposal:
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approval will be accepted without further auditing or checking.
Comment 16
Page 32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.361 Production Organisational Review
Comment 2 also applies here
Comment 17
Page 32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.361 Production Organisational Review
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Proposal:
A block (c) must be added, allowing to reach POA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b), when deviating from the relevant paragraphs for the Production Organizational Review on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response

Not accepted

Please see reply to comment No 130.

comment

484 comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.*

Negative. The proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, which we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, as long as the company deals with ELA 1 products only.

Proposal:
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approval will be accepted without further auditing or checking.

response *Not accepted*

Please see reply to comment No 130.

comment *495* comment by: *light-wings Oliver Liedmann*

Comment 2 also valid here

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
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response *Not accepted*

Please see reply to comment No 130.

comment *514* comment by: *aeroklaus*

Comment 14
Page 31/32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.359 Design Assurance System

Comment 2 also valid here

response *Not accepted*

Please see reply to comment No 130.

comment *515* comment by: *aeroklaus*

Comment 15
Page 31/32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.359 Design Assurance System

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response *Not accepted*

Please see reply to comment No 130.

comment *594* comment by: *klaus M*

Comment 14
Page 31/32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.359 Design Assurance System
Comment 2 also valid here

response *Not accepted*

Please see reply to comment No 130.

comment *595* comment by: *klaus M*

Comment 15
Page 31/32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.359 Design Assurance System
Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.
Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.
Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under

ELA 1 as alternative to (a) or (b) or (c) , when deviating from the relevant paragraphs for the design assurance system but having a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Not accepted*

Please see reply to comment No 130.

comment *639* comment by: *Martin Josef Warken*

Comment 14
Page 31/32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.359 Design Assurance System

Comment 2 also valid here

response *Not accepted*

Please see reply to comment No 130.

comment *640* comment by: *Martin Josef Warken*

Comment 15
Page 31/32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.359 Design Assurance System

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b) or (c) , when deviating from the relevant paragraphs for the design assurance system but having a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Not accepted*

Please see reply to comment No 130.

comment	*645* comment by: *Peter VON BURG* Add the posibility to use other equivalent QM Systems like ISO EN 9000 / 9100 for ELA1, especially for aircrafts according ASTM standards.
response	*Not accepted* Please see reply to comment No 130.

comment	*657* comment by: *Cessna Aircraft Company* Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart J. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart G. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, as long as the company deals with ELA 1 products only. A block (d) must be added, allowing to reach DOA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b) or (c) , when deviating from the relevant paragraphs for the design assurance system but having a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.
response	*Not accepted* Please see reply to comment No 130.

comment	*716* comment by: *procomposite* Negative - the proposal as presented here is in the suitable direction, but not reaching far enough. Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only. Proposal: A block (d) must be added, allowing to reach DOA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b) or (c) , when deviating from the relevant paragraphs for the design assurance system but having a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.
response	*Not accepted* Please see reply to comment No 130.

comment	*739* comment by: *Oliver* Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft. There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control. This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing. In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.
response	*Not accepted* Please see reply to comment No 130.

comment	*740* comment by: *Oliver* Negative - the proposal as presented here is in the suitable direction, but not reaching far enough. Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only. Proposal: A block (d) must be added, allowing to reach DOA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b) or (c) , when deviating from the relevant paragraphs for the design assurance system but having a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.
response	*Not accepted* Please see reply to comment No 130.

comment	*764* comment by: *Air Marugan*

Comment 14
Comment 2 also valid here

response *Not accepted*

Please see reply to comment No 130.

comment *765* comment by: *Air Marugan*

Comment 15

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (d) must be added, allowing to reach DOA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b) or (c) , when deviating from the relevant paragraphs for the design assurance system but having a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Not accepted*

Please see reply to comment No 130.

comment *789* comment by: *Herbert HERGET*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high, that it can hold with those as found for Part 23 aircraft. There is no connection visible, that a self declaration of design and production quality20system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As a fact, reducing the hurdles leads to a much more efficient market self control, than could be achieved by Agency control. This is the background for the c omments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing. In all countries, where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II), it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Not accepted*

Please see reply to comment No 130.

comment *790* comment by: *Herbert HERGET*

Negative. The proposal as presented here is in the suitable direction, but not reaching far enough. Companies already delivering to FAA world LSA certified aircraft, which we can find in EASA world under ELA 1, in a lot o f cases already have approved quality standards manifesting the design capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following the appropriate ASTM standard, DIN EN ISO 9001 or 9100, this must be considered equivalent, as long as the company deals with ELA 1 products only. Proposal: A block (d) must be added, allowing to reach DOA pr ivileges as defined in Subpart L within combined DOA/POA process limited to products coming within ELA 1 as alternative to (a) or (b) or (c) , when deviating from the relevant paragraphs for the design assurance system but having a valid approval following the appropriate ASTM standard (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Not accepted*

Please see reply to comment No 130.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.361 Production Organisational Review p. 32

comment *119* comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high, that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As a fact, reducing the hurdles leads to a much more efficient market self control, than could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries, where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II), it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Not accepted*

Please see CRD Part I paragraph 4.

comment	*129* comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.* Negative. The proposal as presented here is in the suitable direction, but not reaching far enough. Companies already delivering to FAA world LSA certified aircraft, which we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, as long as the company deals with ELA 1 products only. Proposal: A block (c) must be added, allowing to reach POA privileges as defined in Subpart L within combined DOA/POA process limited to products coming within ELA 1 as alternative to (a) or (b), when deviating from the relevant paragraphs for the Production Organizational Review on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.
response	*Not accepted* Please see CRD Part I paragraph 4 for the production issues. Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment	*177* comment by: *Alexander Eich* Negative - the proposal as presented here is in the suitable direction, but not reaching far enough. Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only. Proposal: A block (c) must be added, allowing to reach POA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b), when deviating from the relevant paragraphs for the Production Organizational Review on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.
response	*Not accepted* Please see CRD Part I paragraph 4 for the production issues. Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment	*181* comment by: *Ingmar Hedblom* The concept of not requiring a Quality system for production of ELA aircraft is supported since it is advantageous for small organisations. However, the term "organisational review system" as used in draft proposal for 21A.139(c) is more defining a traditional production control system working on a continous basis. The term has here a different meaning compared to its use for maintenance organisations as now proposed in EASA Opinion 02-2008 amending regulation 2042/2003. In M.A.712, organisational reviews are something that is performed on a regular basis and not a daily activity. This different meaning of organisational reviews in two EASA regulations is confusing. It is therefore suggested that the wording of 21A.139(c) should be "By derogation to....the quality system may be replaced by a Production Control System and the organisation shall demonstrate that it has established and is able to maintain a Production Control System..... Corresponding changes in 21A.361.
response	*Not accepted* Please see CRD Part I paragraph 4.

comment	*203* comment by: *Walter Gessky* **21A.361 Production Organisational review** Change the title to Quality System, because there is no difference to a Quality System of 21A.139. When EASA intend to introduce a simpler system for production of an ELA aircraft than the requirement should be in line with the Subpart F for production. Instead of a detailed production organisational review a production inspection system should be required. The content of the organisational review is not required to be detailed in the IR, the applicant should describe the system in the exposition. More details or guidelines could be given in an AMC or GM.
response	*Accepted* Please see CRD Part I paragraph 4.

comment	*249* comment by: *Ronald MEYER* **Comment 10** **Page 32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.361 Production Organisational Review** Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high, that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As a fact, reducing the hurdles leads to a much more efficient market self control, than could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries, where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II), it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Not accepted*

Please see CRD Part I paragraph 4.

comment *250* comment by: *Ronald MEYER*

Comment 11
Page 32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.361 Production Organisational Review

Negative. The proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, which we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, as long as the company deals with ELA 1 products only.

Proposal:
A block (c) must be added, allowing to reach POA privileges as defined in Subpart L within combined DOA/POA process limited to products coming within ELA 1 as alternative to (a) or (b), when deviating from the relevant paragraphs for the Production Organizational Review on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Not accepted*

Please see CRD Part I paragraph 4 for the production issues.
Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment *256* ❖ comment by: *Gorden WIEGELS*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights

(mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Not accepted

Please see CRD Part I paragraph 4.

comment

266 comment by: *Gorden WIEGELS*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (c) must be added, allowing to reach POA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b), when deviating from the relevant paragraphs for the Production Organizational Review on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response

Not accepted

Please see CRD Part I paragraph 4 for the production issues.
Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment

302 comment by: *Karg*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights - mostly also sold as LSA in FAA world - in Europe, it can be clearly underlined,

	that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft. There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control. This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing. In all countries where deregulated airplanes are already flying (LSA, homebuilt aircrafts, Annex II), it is proven that deregulation in general is not reason for less safety, much more it can even improve safety.
response	*Not accepted* Please see CRD Part I paragraph 4.

comment	*303* comment by: *Karg* Negative - the proposal as presented here is in the suitable direction, but not reaching far enough. Companies already delivering to FAA world LSA certified aircraft that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only. Proposal: A block (c) must be added, allowing to reach POA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b), when deviating from the relevant paragraphs for the Production Organizational Review on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.
response	*Not accepted* Please see CRD Part I paragraph 4 for the production issues. Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment	*324* comment by: *TECNAM* Comment 2 also applies here
response	*Not accepted*

Please see CRD Part I paragraph 4 for the production issues.
Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment

325 comment by: *TECNAM*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
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response

Not accepted

Please see CRD Part I paragraph 4 for the production issues.
Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment

351 comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

Production organization:
From an overall "production organization" standpoint, it has to be remarked that several systems for initial approval and surveillance are currently in place. The introduction of a combined DOA/POA would further increase the amount of necessary procedures for both the Applicants and the parties responsible for the surveillance. Not to be overlooked that some organizations might still need to be oversighted both by EASA and by a NAA. Under these circumstances there are reasons to believe that a complex and confusing system may result and, consequently, it's hard to realize how the expected cost advantages might be achieved. (NOTE. These considerations are based on the results of the introduction of different systems for the initial approval and surveillance of manufacturers of Annex I and Annex II aircraft).

The proposal to introduce a "production organizational review system" is too vague to be properly evaluated: a description of what is meant by "production organizational review system" should be pro-vided. However, based on the information available in the NPA text, it can hardly be seen as a practi-cal way to simplify the requirements currently defined under Subpart G. On the contrary, there is a risk that the production organizational review system could translate in a further paper exercise (new set of procedures) having little to do with the intent of the requirements contained in Subpart G.

response

Accepted

Please see CRD Part I paragraph 4.

comment

362 ❖ comment by: *O. Reinhardt / Flightdesign*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

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This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

This comment is also valid for several other locations as linked, and for the Who does what- Table, there section "organisational approval" (not possible to link exactly)

response

Not accepted

Please see CRD Part I paragraph 4.

comment

373 comment by: *O. Reinhardt / Flightdesign*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
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accepted without further auditing or checking.

response

Not accepted

Please see CRD Part I paragraph 4 for the production issues.
Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment

389 comment by: *Thomas Wendt*

Comment 16
Page 32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.361 Production Organisational Review

Comment 2 also applies here

Comment 17
Page 32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.361 Production Organisational Review

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (c) must be added, allowing to reach POA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b), when deviating from the relevant paragraphs for the Production Organizational Review on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response

Not accepted

Please see CRD Part I paragraph 4 for the production issues.
Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment

400 ❖ comment by: *Flight Design GmbH Matthias Betsch CEO*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high

that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Not accepted*

Please see CRD Part I paragraph 4 for the production issues.
Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment *423* comment by: *Flight Design GmbH Matthias Betsch CEO*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (c) must be added, allowing to reach POA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b), when deviating from the relevant paragraphs for the Production Organizational Review on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Not accepted*

Please see CRD Part I paragraph 4 for the production issues.
Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment *462* comment by: *www.fascination-pilots.de*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (c) must be added, allowing to reach POA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b), when deviating from the relevant paragraphs for the Production Organizational Review on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Not accepted*

Please see CRD Part I paragraph 4 for the production issues.
Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment *496* comment by: *light-wings Oliver Liedmann*

Comment 2 also applies here.

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (c) must be added, allowing to reach POA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b), when deviating from the relevant paragraphs for the Production Organizational Review on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Not accepted*

Please see CRD Part I paragraph 4 for the production issues.
Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment *516* comment by: *aeroklaus*

Comment 16
Page 32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.361 Production Organisational Review
Comment 2 also applies here

response *Not accepted*

Please see CRD Part I paragraph 4.

comment *517* comment by: *aeroklaus*

Comment 17
Page 32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.361 Production Organisational Review

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (c) must be added, allowing to reach POA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b), when deviating from the relevant paragraphs for the Production Organizational Review on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Not accepted*

Please see CRD Part I paragraph 4 for the production issues.
Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment *545* comment by: *Austro Control GmbH*

21A.361 Production Organisational review

Change the text to quality system, because there is no difference to the quality system of 21A.139.

response *Accepted*

Please see CRD Part I paragraph 4.

comment	*570* comment by: *UK CAA* 21A.361(b)(ii) 21A.361(b)(ii) requires "An internal quality assurance function...." The important part of this element, taken from subpart G, is the independence of the monitoring of compliance. Replacing 'independent' with 'internal' loses this point. A small organisation can still achieve an independent audit of its compliance as demonstrated by numerous very small current POA holders (3-4 staff). **Suggested text** "An independent quality assurance function...."
response	*Accepted* Please see CRD Part I paragraph 4.

comment	*596* comment by: *klaus M* Comment 16 Page 32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.361 Production Organisational Review Comment 2 also applies here
response	*Not accepted* Please see CRD Part I paragraph 4.

comment	*597* comment by: *klaus M* Comment 17 Page 32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.361 Production Organisational Review Negative - the proposal as presented here is in the suitable direction, but not reaching far enough. Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only. Proposal: A block (c) must be added, allowing to reach POA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b), when deviating from the relevant paragraphs for the Production Organizational Review on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.
response	*Not accepted*

Please see CRD Part I paragraph 4 for the production issues.
Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment 641 comment by: *Martin Josef Warken*

Comment 16
Page 32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.361 Production Organisational Review

Comment 2 also applies here

response *Not accepted*

Please see CRD Part I paragraph 4 for the production issues.
Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment 642 comment by: *Martin Josef Warken*

Comment 17
Page 32 - B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.361 Production Organisational Review

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
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response *Not accepted*

Please see CRD Part I paragraph 4 for the production issues.
Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment 646 comment by: *Peter VON BURG*

Add additional QM standards like ISO EN 9000 / 9100 especially for aircrafts according ASTM standard.

response *Not accepted*

Please see CRD Part I paragraph 4.

comment *699* comment by: *Cessna Aircraft Company*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, as long as the company deals with ELA 1 products only.

Proposal:
A block (c) must be added, allowing to reach POA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b), when deviating from the relevant paragraphs for the Production Organizational Review on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Not accepted*

Please see CRD Part I paragraph 4 for the production issues.
Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment *718* comment by: *procomposite*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (c) must be added, allowing to reach POA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b), when deviating from the relevant paragraphs for the Production Organizational Review on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response

Not accepted

Please see CRD Part I paragraph 4 for the production issues.
Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment

741 comment by: *Oliver*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Not accepted

Please see CRD Part I paragraph 4.

comment

742 comment by: *Oliver*

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (c) must be added, allowing to reach POA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b), when deviating from the relevant paragraphs for the Production Organizational Review on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response

Not accepted

Please see CRD Part I paragraph 4 for the production issues.
Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment 766 comment by: *Air Marugan*

Comment 16
Comment 2 also applies here

response *Not accepted*

Please see CRD Part I paragraph 4 for the production issues.
Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment 767 comment by: *Air Marugan*

Comment 17

Negative - the proposal as presented here is in the suitable direction, but not reaching far enough.

Companies already delivering to FAA world LSA certified aircraft, that we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equivalent, ass long as the company deals with ELA 1 products only.

Proposal:
A block (c) must be added, allowing to reach POA privileges as defined in Subpart L within combined DOA/POA process limited to products falling under ELA 1 as alternative to (a) or (b), when deviating from the relevant paragraphs for the Production Organizational Review on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Not accepted*

Please see CRD Part I paragraph 4 for the production issues.
Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment 791 comment by: *Herbert HERGET*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high, that it can hold with those as found for Part 23 aircraft. There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising

of requirements / requirement of approvals can not be argued with additional safety. As a fact, reducing the hurdles leads to a much more efficient market self control, than could be achieved by Agency control. This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing. In all countries, where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II), it20is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Not accepted*

Please see CRD Part I paragraph 4.

comment *792* comment by: *Herbert HERGET*

Negative. The proposal as presented here is in the suitable direction, but not reaching far enough. Companies already delivering to FAA world LSA certified aircraft, which we can find in EASA world under ELA 1, in a lot of cases already have approved quality standards manifesting the production capabilities in equivalent, but not identical way as required by subpart L. Nevertheless these are fully sufficient to exercise the privileges as defined in Subpart L. So, when a valid approval exists following ASTM F2279, DIN EN ISO 9001 or 9100, this must be considered equival ent, as long as the company deals with ELA 1 products only. Proposal: A block (c) must be added, allowing to reach POA privileges as defined in Subpart L within combined DOA/POA process limited to products coming within ELA 1 as alternative to (a) or (b), when deviating from the relevant paragraphs for the Production Organizational Review on the basis of a valid approval following ASTM F2279 (no self declaration, but valid positive audit of accepted organization), DIN EN ISO 9001 or DIN EN ISO 9100. The approval will be accepted without further auditing or checking.

response *Not accepted*

Please see CRD Part I paragraph 4 for the production issues.
Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.363 Exposition p. 33

comment *571* comment by: *UK CAA*

21A.363
It is suggested that a requirement to include a list of partners and significant subcontractors should be added.
Suggested text:
x) The amendment procedure for the exposition;
xi) A description of the organisational review system and associated procedures.
Xii) A list of partners and significant subcontractors.

response *Partially accepted*

This has not been reflected into the CRD Part-I but was an oversight.

A changed text is proposed here.

resulting text

12. A list of those outside parties referred to in 21A.361(a).

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.365 Approval Requirements p. 33-34

comment

572 comment by: *UK CAA*

21A.365 As the organisation is to have maintenance privileges, maintenance requirements should be included; otherwise it is unfair to Part M organisations. If is suggested that these requirements could be based on Part M Subpart F (see M.A.615).

response

Accepted

The privilege for maintenance is not kept. Refer to CRD Part I paragraph 4.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.381 Design Privileges p. 36-37

comment

1 comment by: *Lees Avionics Ltd*

Will the proposed 21A.381 privilege of the combined POA/DOA for **'making changes to the flight and/or technical manuals'** be extended to existing Part 21J DOA holders, rather than the current 'making documentary changes to the Flight Manual' privilege.

response

Noted

This is consistent with Opinion 01/2010. It goes beyond what is proposed in that Opinion but this is considered acceptable as combined DOA/POA is limited to ELA that are non-complex aircraft.

comment

159 comment by: *Apex Aircraft*

Le 21A.381 c) prévoit de pouvoir approuver des modifications des manuels de vol alors qu'un détenteur de DOA ne peut qu' approuver des modifications documentaires des manuels de vol (voir 21A.263c)).

Les privilèges associés au DOA ne devraient pas être moindres que ceux liés à un agrément commun conception/production.

response

Noted

This is consistent with Opinion 01/2010. It goes beyond what is proposed in that opinion but this is considered acceptable as combined DOA/POA is limited to ELA that are non-complex aircraft.

comment	*573*	comment by: *UK CAA*
	21A.381(c)	It appears from the NPA that no design organisation approval is required for ELA1, but that an organisation holding a DOA, APDOA or combined DOA/POA could be the TC Holder for an ELA1. Could the Agency confirm this? If the DOA, APDOA or combined DOA/POA can be used for ELA1, this should be included as an option in the "who does what" table for ELA 1.
response	*Noted* The holder of a combined DOA/POA could be the holder of an ELA TC. Combined DOA/POA is an option offered to ELA.	

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.383 Production Privileges p. 37

comment	*337*	comment by: *Luftfahrt-Bundesamt*
	see comment referring to 21A.163	
response	*Noted* Please see CRD-Part I paragraph 5.	

comment	*574*	comment by: *UK CAA*
	21A.383	**Suggested text - title** 21A.383 Production and Maintenance Privileges
response	*Not accepted* The maintenance privileges are the same as for production organisations. Please see CRD Part I paragraph 5.	

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart L - Combined Approval of Organisations Responsible for Design and Production of aircraft defined in Paragraph 21A.14(b) and (c) - 21A.385 Obligations of the Holder p. 37-39

comment	*77* ❖	comment by: *Dyn'aéro*
	Dyn'Aero soutient ces propositions. *Dyn'Aero supports these proposals.*	
response	*Noted* The maintenance privileges are now the same as for production organisations. Please see CRD Part I paragraph 5.	

comment	*575* comment by: *UK CAA* 21A.385(g) Due to the maintenance privileges, 21A.385 should include maintenance obligations derived from those of Parts M/145/66.
response	*Noted* The maintenance privileges are now the same as for production organisations. Please see CRD Part I paragraph 5.

comment	*576* comment by: *UK CAA* 21A.385(m) This paragraph needs to be checked for consistency with Part M subpart F. There also needs to be an equivalent paragraph for the release of parts and appliances.
response	*Noted* The maintenance privileges are now the same as for production organisations. Please see CRD Part I paragraph 5.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart M p. 39

comment	*77* ❖ comment by: *Dyn'aéro* Dyn'Aero soutient ces propositions. *Dyn'Aero supports these proposals.*
response	*Noted* The Agency thanks you for your support.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart M - 21A.432B Demonstration of capability p. 39

comment	*63* comment by: *John Tempest* Guidance material is required here as to the role of the QE. Although the applicant may submit a Certification Plan to EASA, it is presumed that part of the Certification Plan would need to identify the NAA or QE to be used to confirm compliance. Attachment 2 for ELA 1 makes it clear that confirmation of compliance with the requirements will be necessary for ELA 1 (and of course ELA-2 will be subject to normal DOA procedures). However, this paragraph as-writted does not make it clear that compliance verification by NAA or QE is a requirement. This is an important point to highlight because for the FAA/ASTM LSA rules and standards, compliance verification is left in the hands of the designer/manufacturer - no external validation is required. The FAA approach places responsibility directly in the hands of the manufacturer. However, I do not believe that this is the intention of this NPA.
response	*Noted*

The EASA Management Board has not adopted yet the policy on the use of QE.

comment *77* ❖ comment by: *Dyn'aéro*

Dyn'Aero soutient ces propositions.
Dyn'Aero supports these proposals.

response *Noted*

The Agency thanks you for your support.

comment *141* comment by: *Apex Aircraft*

Le 21A.432Bc) se réfère aux avions définis dans les paragraphes 21A.14c). On retrouve là l'idée de catégories d'avions de moins de 1000 kg. La notion de "nouveau process" (ELA) semble oubliée au profit d'une nouvelle catégorie d'avion.

response *Noted*

The Agency confirms that the ELA is a new process as it affects Part-21. There is a need to define the aircraft to which the process is applicable and therefore could be interpreted as categories.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart M - 21A.436 Standard repairs p. 39

comment *12* comment by: *Francis Fagegaltier Services*

The referenced paragraph A.91 does not exist. What should this reference be ?

response *Accepted*

The commentator is right and the text should have read: 21A.91. The text will be modified accordingly.

comment *23* comment by: *FFVV*

Proposition de la FFVV :
Pour les réparations de sructure en matériaux composites, l'approbation de spécification de certification peut être remplacée par la référence à un manuel de réparation approuvé, présentant les méthodes, procédures et techniques applicables. La FFVV a l'intention de développer un tel manuel, conçu par ailleurs pour la formation des mécaniciens intervenants sur les structures en matériaux composite. ce type de manuel sera plus complet que les indications tiré du concept des AC 43-13...

response *Accepted*

A TC holder can include such a manual in its instructions for continuing airworthiness for Agency approval.
The Agency intends to use AC 43-13 in the first issue of the CS and then to update the CS to take into account modern composite structures. In that context the input from FFVV is welcome.

comment *24* comment by: *FFVV*

On behalf on FFVV :
Proposition :
Pour les réparations des strutures en matériaux composites, l'approbation de certification peut être remplacée par la référence à un manuel de réparation approuvé, présentant les méthodes, procédues, et techniques applicables à ces réparations.
Compte tenu de l'expérience acquise depuis trente années au moins dans ce domaine, la FFVV a prévu de réaliser un tel manuel, qui apportera davantage de données aux mécaniciens que les indications fournies par les AC 43-13...

response *Accepted*

A TC holder can include such a manual into its instructions for continuing airworthiness for agency's approval.
The Agency intends to use AC 43-13 in the first issue of the CS and then to update the CS to take into account modern composite structures. In that context the input from FFVV is welcome.

comment *77* ❖ comment by: *Dyn'aéro*

Dyn'Aero soutient ces propositions.
Dyn'Aero supports these proposals.

response *Noted*

The Agency thanks the commentator for their support.

comment *204* comment by: *Walter Gessky*

21A.436 Standard repairs
Correct a wrong reference:

- **(a) By way of derogation to paragraph ~~A.91~~ 21A.437, the following...**

Comment:
The reference to A.91 seams to be incorrect. Correct could be **21A.437**

- **(c) The standard repair is deemed to be approved by the Agency when it is designed in accordance with the certification specification mentioned in paragraph (b).**

Question:
Can a Part 145 organization use the CS without a DOA?

response *Partially accepted*

The reference will be changed to Paragraph 21A.437.
The CS is actually approved data that a maintenance organisation may use in accordance with Part-M.

comment *538* comment by: *Austro Control GmbH*

Comment
The reference in the first sentence of this § is incomplete.
21A.436(a) is unclear in wording and over defined.
Generally the same comment applies as for standard changes.
An organisation with a combined overall proposal as proposed in this comment may be eligible for production design and installation of a repair or change.

Proposal
Change in 21A.436(a)
Delete all after Take Off mass and add to 21A.439 and 21A.441:
"An Organisation for ELA1 aircraft holding an combined approval may be eligible for production, design and embodiment of repairs."

response

Noted

The reference will be changed to Paragraph 21A.437.
The standard change is deemed to be approved by the Agency when it is designed in accordance with the certification specification.
However, the Agency wishes to point out that changes can only be approved by the Agency or by an appropriately approved design organisation.

comment

675 comment by: *DGAC France*

1a. COMMENT TO:

- ü **Draft Opinion(s)**

Amendment to Commission Regulation (EC) No. 1702/2003 Part 21

1b. AFFECTED PARAGRAPH:

21. A.96 and 21.A.436

2. PROPOSED TEXT:

Bien que la DGAC France soit d'accord sur le principe des modifications et réparations standard, utiliser la terminologie « spécifications de certification » semble surprenant. Les CS donnent habituellement des exigences réglementaires, pas un ensemble de dossiers de conception déjà approuvés. Ne pourrait on avoir une autre appellation ?
Néanmoins, le contenu des ces documents est de toute importance afin d'en évaluer les bienfaits simplificateurs des processus d'approbation de modification ou réparation. Une tâche réglementaire définissant ces CS devrait être inscrit au programme de travail de l'AESA et la DGAC recommande un groupe de travail impliquant l'industrie et les autorités pour faire avancer ce sujet.

Par ailleurs, la DGAC demande à l'agence de préciser que l'utilisation concrète au cas par cas de ces « CS » sera documenté de manière adéquate, en particulier pour permettre à un organisme CAMO de suivre l'état de navigabilité des aéronefs qu'il gère.

Courtesy translation:
Although DGAC France agrees on the principle of standard repairs and modifications, the use of the terminology of certification specification is a bit surprising. The CS usually gives airworthiness rules, not already approved airworthiness data. Can't there be another name?
Nevertheless, those document contents are important and shall be carefully written in order to optimize the benefits for leisure aviation in terms of repairs and modifications approvals. A rulemaking task shall be added to the EASA work programme and DGAC France suggests that a group of industry and NAA representatives shall be in charge of this task.

In addition, DGAC France asks EASA to clarify that the day by day use of this "CS" will be documented adequately, in particular to make sure a CAMO will be

	able to assess the continued airworthiness of the aircraft it manages.
response	*Noted* The Agency agrees that present CS are airworthiness codes. However, the words certification specifications are broad enough to cover the present case. The important issue is that such CS are issued and updated using the normal rulemaking process allowing stakeholders and NAAs to express their views. The Agency does not exclude the possibility to set up groups for the update of the CS if the technological progress would make it advisable. The CS cover the design aspects of the change or repairs. The installation of such changes or repairs will be done in accordance with Part-M.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart M - 21A.439 Production of repair parts p. 39-40

comment	*64* comment by: *John Tempest* Suggest that repair parts may be produced and released under Subpart K 21A.307 for aircraft as defined in 21A.307. Suggest adding: d) Parts produced and released in accordance with 21A.307.
response	*Not accepted* This paragraph deals with production of parts. 21A.307 allows releasing parts under certain conditions without a Form 1. Adding the text proposed by the commentator here is not necessary and could cause confusion.

comment	*77* ❖ comment by: *Dyn'aéro* Dyn'Aero soutient ces propositions. *Dyn'Aero supports these proposals.*
response	*Noted* The Agency thanks the commentator for their support.

comment	*205* comment by: *Walter Gessky* **21A.439** Add a new (d) **(d) in the case of aircraft complying with one of the criteria of 21A.14(b) and (c) and used in non-commercial operation, except for life limited parts, and complex parts, repair parts produced in conformity with standard repair data under the responsibility of the aircraft owner when installed in his aircraft by a certifying staff;** **Justification:** For ELA aircraft used in non-commercial operation it should be possible that certifying staff produce repair parts. Life limited parts and complex parts are excluded.
response	*Not accepted*

The proposal goes beyond the scope of the NPA.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart M - 21A.441 Repair embodiment p. 40

comment	*65* comment by: *John Tempest* (a) Editorial change. 'approved in accordance with Subpart G *or* L'
response	*Accepted* Please see changed text of CRD Part I.

comment	*77* ❖ comment by: *Dyn'aéro* Dyn'Aero soutient ces propositions. *Dyn'Aero supports these proposals.*
response	*Noted* The Agency thanks the commentator for their support.

comment	*206* comment by: *Walter Gessky* **21A.441 Repair embodiment** (b) The Design Organisation or the combined Design and Production Organisation shall transmit to the organisation performing the repair all the necessary installation instructions. **Comments:** **Where are the advantages for standard repairs for ELA?** **Add a new (c):** **•(a) in the case of aircraft complying with one of the criteria of 21A.14(b) and (c) and used in non-commercial operation, except for complex repairs, repairs in conformity with standard repair data may be installed under the responsibility of the aircraft owner by a certifying staff;** **Justification:** For ELA aircraft used in non-commercial air transport repairs in compliance with the CS for standard repair should also be allowed to be installed by adequately licensed certifying staff. Simplification for ELA.
response	*Not accepted* This proposal goes beyond the scope of the NPA.

comment	*577* comment by: *UK CAA* 21A.441 **Suggested text** "....with Subpart G or L, under....."
response	*Accepted* Please see changed text of CRD Part I.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart P - 21A.710(a) p. 40

comment	*77* ❖ comment by: *Dyn'aéro* Dyn'Aero soutient ces propositions. *Dyn'Aero supports these proposals.*
response	*Noted* The Agency thanks the commentator for their support. Please note however that changes have been made to the proposal as reflected in the changed text of CRD Part I.

comment	*207* comment by: *Walter Gessky* **Subpart P 21A710(a) 21A.710 (a)** **Change the following:** • (a) For aircraft defined in 21A.14(b) or (c) and subject to 21A.257(b), the Agency ~~shall~~ **can** accept without further verification compliance documents submitted by the applicant for the purpose of obtaining the establishment of flight conditions required for a permit to fly. **Comment:** Shall is not acceptable and should be replaced by can. The Agency should always have the right to verify compliance documents submitted. What kind of documents the Agency will review is usually notified in the certification work programme. For DOA, POA and combined POA/DOA approval of flight conditions is anyway mentioned as a possible privilege. It might be beneficial when an AMC be developed with regard to standard Flight Conditions. Standard Flight conditions for ELA Light Aircraft: • Minimum Crew • Not over populated areas or industrial complexes • Procedures acc to AFM with Va as maximum airspeed • Max bank angle 30° • VMC, VFR day, calm outside of CB
response	*Partially accepted* Please note that changes have been made to the proposal as reflected in the changed text of CRD Part I. The Agency will consider to develop AMC for standard flight conditions for ELA as part of Task MDM.032 (b).

comment	*541* comment by: *Austro Control GmbH*

Comment
If the Agency has to accept something from an applicant without background and without any further verification, it is an useless regulation and not acceptable!
It makes sense that flight conditions are verified because safety of flight is involved.
It is proposed that the organisation holding the combined approval may approve the flight conditions without involving the Agency at all. The approval of the permit to fly is than still at the competent authority. In most cases for light airplanes, safety of flight is not involved and the approval will be done by the competent authority.
An AMC should be developed with standard flight conditions.

Proposal
Change to:
For ELA 1 aircraft the flight conditions have to be approved by the Organisation holding a combined approval, by the QE, by the NAA or directly by the competent authority.
Add to the AMC:
Standard flight conditions for ELA:

- Minimum Crew
- Not over populated areas or industrial complexes
- Procedures according to AFM with Va as maximum airspeed
- Max bank angle 30°
- VMC, VFR day, calm, outside of CB

response *Partially accepted*

Please note that changes have been made to the proposal as reflected in the changed text of CRD Part I.
The Agency will consider to develop AMC for standard flight conditions for ELA as part of Task MDM.032 (b).

comment *578* comment by: *UK CAA*

21A.710(a) Page 40	The current Part 21 subpart P assumes that the applicant will be a DOA. For ELA1 aircraft a DOA is not required. The wording proposed in the NPA suggests that the Agency "shall" approve flight conditions for an ELA1 from an unapproved source without investigation. Is this intended?

response *Partially accepted*

Please note that changes have been made to the proposal as reflected in the changed text of CRD Part I.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart Q p. 40

comment *77* ❖ comment by: *Dyn'aéro*

Dyn'Aero soutient ces propositions.
Dyn'Aero supports these proposals.

response *Noted*

The Agency thanks you for your support.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart Q - 21A.801 Identification of products p. 40

comment *77* ❖ comment by: *Dyn'aéro*

Dyn'Aero soutient ces propositions.
Dyn'Aero supports these proposals.

response *Noted*

The Agency thanks you for your support.

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart Q - 21A.804 Identification of parts and appliances p. 40-41

comment *14* comment by: *Francis Fagegaltier Services*

The reference to subpart Q in the proposed 21A.804 (c) is inadequate because 21A.801 and 21A.805, which are part of subpart Q, are applicable to all products.

This is also a fundamental issue. Is it acceptable to be unable after an accident to track down the origin of the parts of an aircraft because there is no marking ?

response *Accepted*

Please see CRD Part I paragraph 7.

comment *77* ❖ comment by: *Dyn'aéro*

Dyn'Aero soutient ces propositions.
Dyn'Aero supports these proposals.

response *Noted*

The Agency thanks you for your support. However, please note that we have withdrawn this proposal after reviewing the other comments received on this issue that raised valid points.

comment *340* comment by: *Luftfahrt-Bundesamt*

Topic: Subpart Q 21A.804 and 21A. 805

Concerns:
- Is it correct that the exemptions from the marking requirements for non life-limited parts do only apply to part of ELA1-products?
- If this is justifiable, it should also lead to the consequence to exclude parts for ELA2-products from the exemption to be accompanied by a Form 1 before the installation of the relevant part. If the marking of the part is required, it should also be released with an EASA Form 1.
- How can somebody distinguish between parts produced by the manufacturer and parts produced by aircraft owner if the marking requirements apply only to life limited parts? If an owner produces a part he might not use the name,

	trademark or symbol of the original manufacturer. But when these markings are part of the approved design data no full compliance to the design data is possible. To improve this situation we would recommend a clear identifier on parts produced by the aircraft owner. Similar to the EPA-approach (European Part Approval) we would propose to have the letters "AOPP" for "aircraft owner produced part" on each part which has been produced by an owner. (If our proposal to replace the "aircraft owner" by the "operator" is accepted, this would lead to "OPP" "for operator produced part".)
response	*Accepted* Please see CRD Part I paragraph 7.

comment	*579*	comment by: *UK CAA*
	21A.804(c); Page 41	It is recommended that all parts should at least be marked with the product designation in order that conformity with the design may be established. Also, critical parts should be marked in full compliance with the requirements. It is not logical to require full compliance for life-limited parts and not for critical parts. Suggested text: (a) Each manufacturer of a part or appliance shall permanently and legibly mark the part or appliance with: (1) a name, trademark, or symbol identifying the manufacturer; and (2) the part number, as defined in the applicable design data; and (3) the letters European Part Approval (EPA) for parts and appliances produced in accordance with approved design data not belonging to the Type Certificate holder of the related product, except for ETSO articles. (b) By way of derogation from paragraph (a), if the Agency agrees that a part or appliance is too small or that it is otherwise impractical to mark a part or appliance with any of the information required by paragraph (a), the authorised release document accompanying the part or appliance or its container shall include the information that could not be marked on the part. (c) By way of derogation to paragraph (a), for product defined in 21A.14(c), the marking in accordance with (a) (1) & (3) ~~subpart Q, other than~~ is only required for life limited parts and critical parts**.**
response	*Accepted* Please see CRD Part I paragraph 7.	

B. Draft Rules - I. Amendments to Part-21 - Section A - Subpart Q - 21A.805 Identification of critical parts p. 41

comment	*13*	comment by: *Francis Fagegaltier Services*

The added sentence is :
(1) not relevant to the subject of this paragraph 21A.805 and,
(2) not true, because 21A.801 (which is part of subpart Q) is applicable to products defined in 21A.14 (c).

This added sentence should be deleted.

It is noted that critical parts (at least, this is true for engine critical parts, see CS-E 515 (a)) are life limited : therefore, this paragraph is always applicable to products defined in 21A.14 (c).

Furthermore, the concept of critical parts is also valid for such aircraft and therefore there should not be any alleviation to this safety measure.

response *Accepted*

Please see CRD Part I paragraph 7.

comment *77* ❖ comment by: *Dyn'aéro*

Dyn'Aero soutient ces propositions.
Dyn'Aero supports these proposals.

response *Noted*

The Agency thanks you for your support. However, please note that we have withdrawn this proposal after reviewing the other comments received on this issue that raised valid points.

comment *341* comment by: *Luftfahrt-Bundesamt*

see comment referring to 21A.804

response *Accepted*

Please see CRD Part I paragraph 7.

B. Draft Rules - I. Amendments to Part-21 - Section B - Subpart L - 21B.620 p. 41

comment *77* ❖ comment by: *Dyn'aéro*

Dyn'Aero soutient ces propositions.
Dyn'Aero supports these proposals.

response *Noted*

The Agency thanks the commentator for their support.

comment *208* comment by: *Walter Gessky*

Section B
Comment:
In addition to the essential requirements according Annex V to EC 216/2008, Section B should be extended and regulate the standards for qualified entities too.

response | *Not accepted*

Section B requirements are for competent autorities. Qualifed entities are not competent authorities. Therefore requirements for QE cannot be included in section B.

comment | *526* comment by: *Austro Control GmbH*

Comment:
Section B regulates the procedures for competent authorities.
The new concept of EASA is completely different. The competent authority has different functions and new organisations as NAA or qualified entity are present.
The procedures for NAA or qualified entities are completely missing.

Proposal:
Add in Section B or a seperate annex for the procedures of NAAs and qualified entities.

response | *Not accepted*

Section B requirements are for competent autorities. Qualifed entities are not competent authorities. Therefore requirements for QE cannot be included in section B.

B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes p. 42

comment | *25* comment by: *FFVV*

On behalf of FFVV. Comments

La plupart des planeurs ont des MTOM inférieures à 600kg et pourraient entrer dans ce standard, mais aucune réduction d'exigence, ni pour la certification, ni pour la maintenance ou la navigabilté n'apparait par rapport aux ELA1. La FFVV ne voit donc pas l'intérêt de cette nouveauté.

response | *Not accepted*

CS-LSA provides technical requirements that are proportionate to these aeroplanes. In addition the CS-LSA is based on the ASTM standard used in the US for the LSA rule.

comment | *33* comment by: *PPL IFR, UL, Personal View*

Please implement an LSA class in Europe:
a) to overcome the 472,5kg MTOW-burden of the German UL-class
b) to ensure travel between European countries will be easier than with today´s ULs,
c) since planes are expected to become cheaper, if US and Europe have a single market for that kind of planes.
Today I fly German Ultralights more often than traditional Pipers/Cessnas, since ULs are
- 50% cheaper to operate and
- I feel safer with a modern Rotax-Engine and a Plane-Parachute in emergency
With a new LSA-class you can lift these advantages to an European level - with

	the further advantage of 600kg MTOW.
response	*Not accepted* We have tried to improve the certification conditions for all small aircraft, not only for LSA. The Agency agrees that remaining within the constraints of Part-21 only provides limited improvements and has planned task BR.010 to explore how to go beyond. Please see CRD Part I paragraph 2.

comment	*34* comment by: *PPL IFR, UL, Personal View* Technically, please refer to the US laws, but please: a) exclude the max-speed-limit of ~200km/h and b) modify the US "fixed-pitch-prop requirement" to "fixed or auto-adjusted"-pitch-props You may restrict this exclusion-waiver to airplanes with less noise. Just pick an ambitious noise-reduction target, the results of current lab-research make it likely that innovative companies will meet the lower noise-limits to offer a speedy premium product. This would push the European innovation into the fields that become more relevant in the future: "more speed with less noise". As we have seen with the Germany UL-scene, tremendous developments are possible if the law sets the right incentives, e.g., compare Cessna 152 to modern ULs. a) Speed: From my experience I found it much easier to pilot a well balanced Dynaero-VLA Rotax 114 at 320km/h-true-airspeed than a Cessna 152 at usual speeds; even if the air is rough - as long as the stall speed (dirty config) is low (please keep that limit). b) Auto-adjusted-pitch-prop As you know, electrically-adjustable-props are much easier to handle than manual constantspeed-props with oil pressure. Electrically-adjustable-props keep the workload to the LSApilot on the same level as an fixed-pitch prop. As with FADEC, once I had flown one, I was sure that is the next innovation level. (German-ULs today can operate them already!) As I see in my daily work as a strategy consultant, plus as we have seen with UL, those jurisdictions that promote innovation-waves, have an advantage to win innovative companies.
response	*Partially accepted* Please see CRD Part I paragraph 8.

comment	*66* comment by: *John Tempest* I am strongly in support of the content of this CS-LSA.
response	*Noted* The Agency thanks the commentator for his support.

comment	*78* comment by: *Dyn'aéro* **Commentaires sur le CS LSA / *Comments on CS LSA*** **1er proposition :** Dyn'Aéro propose la suppression de la CS LSA et a fortiori de toutes mentions

explicites s'y rapportant présentes dans la NPA 2008-07 (y compris dans la note explicative).

OU, 2ème proposition :
dans la mesure où le code ASTM F2245 serait utilisé comme référence, l'alignement des définitions de l'EASA avec celle de la FAA, ce qui se traduit par :

1.1 le remplacement du paragraphe LSA 1 (ii)

(ii) "A maximum stalling speed in the landing configuration (VS0) of not more than 45 knots CAS at the aircraft's maximum certificated Take-Off Mass and most critical centre of gravity."

par celui-ci :

(ii) "A maximum stalling speed in clean configuration (VS1) of not more than 45 knots at the aircraft's maximum certificated Take-Off Mass and most critical centre of gravity."

- 1.2 et l'ajout des paragraphes LSA 1 (v) et (vi):

(v) "A maximum airspeed in level flight with maximum continuous power (Vh) of not more than 120 knots CAS [in standard sea level atmospheric conditions]."

(vi) "A maximum operation altitude of not more than 10 000 feet."

Raisons :
1. La sous catégorie LSA n'apporte rien par rapport à la VLA mais complique la lecture et la future application du texte.
2. La définition d'un aéronef LSA est incluse dans la définition d'un aéronef VLA. Or, l'ASTM est très similaire au CS VLA, il n'y a donc pas dans les faits d'allègement significatif supplémentaire,
3. La définition retenue dans le cadre de la NPA pour un aéronef LSA n'est pas la même que celle retenue par la FAA (Vs non conforme, pas de limite de Vp, pas de limite d'altitude d'exploitation, etc...)
4. L'ASTM couvrirait donc en Europe des aéronefs ayant une énergie plus importante en Europe qu'aux USA, ce qui parait pour le moins curieux.
5. La référence à l'ASTM F2245 sous entend la prise et compte et l'acception de toutes les autres ASTM auxquels l'ASTM F2245 fait appel notamment au niveau des hélices, équipements, etc... et cela peut avoir des implications non connues à ce jour.
6. Il me semble que les implications colossales d'une telle décision n'ont pas été bien appréhendées par l'EASA.
7. Il n'y a pas de définition des caractéristiques des aéronefs dans l'ASTM F2245 (masse, Vso, etc.). La limitation à 600kg et 45kts de Vs vient de la FAA.
8. Le succès de la LSA américaine est le fait qu'il s'agit d'une certification déclarative. Ce n'est pas le cas dans le cadre de la NPA. Le niveau de difficulté de l'ASTM étant identique à celui d'une CS VLA, il n'y a donc pas d'allégement réel,
9. Un autre allègement de la LSA américaine est la licence de pilote. Or dans le NPA, le LSA est un aéronef à part entière. Il n'y a donc pas d'allégement sur ce point.
10. La création d'une catégorie à 600kg avait été stigmatisée par de nombreuses fédérations d'ULM en raison de la confusion possible avec l'ULM à 472.5kg. La réapparition de cette notion de LSA dans ce texte est donc un risque à terme pour les ULM d'aujourd'hui qui bénéficie d'un régime d'homologation encore bien plus souple que l'ELA et dont le

niveau de sécurité est aujourd'hui prouvé.

En résumé, il n'y a aucun avantage a constituer de cette manière explicite cette catégorie (qui est de fait déjà dans l'ELA1) et il y a plusieurs risques majeurs pour l'avenir (notamment vis-à-vis des aéronefs aujourd'hui en annexe 2).

1st proposal:

Dyn'Aéro proposes to eradicate the CS LSA and therefore any explicit references within the NPA 2008-07 (including in the explanatory note).

OR, 2nd proposal :

Insofar as the code ASTM F2245 would be used as a reference, the alignment of definitions EASA with the FAA ones, which means:

1.1 replacement LSA paragraph 1 (ii)

(ii) "A maximum stalling speed in the landing configuration (VS0) of not more than 45 knots CAS at the aircraft's maximum certificated Take-Off Mass and most critical center of gravity."

by this paragraph :

(ii) "A maximum speed stalling in clean configuration (VS1) of not more than 45 knots at the aircraft's maximum certificated Take-Off Mass and most critical center of gravity."

1.2 and the addition of paragraphs LSA 1 (v) and (vi):

(v) "A maximum airspeed in level flight with maximum continuous power (Vh) of not more than 120 knots CAS [in standard sea level atmospheric conditions]."

(vi) "A maximum altitude operation of not more than 10 000 feet."

Reasons:

1. *The sub-category LSA adds nothing compared to the VLA but complicates the reading and the future application of the text.*
2. *The definition of an aircraft LSA is included in the definition of an aircraft VLA. However, the ASTM is very similar to CS VLA, so there is not actually significant additional relief,*
3. *The definition used in connection with the NPA for an LSA aircraft is not the same as that adopted by the FAA (non-compliant Vs, no limit for the Vp, no limit concerning the operating altitude, etc...)*
4. *The ASTM would therefore cover aircraft in Europe with a greater energy in Europe than in the USA, which seems particularly curious.*
5. *The reference to ASTM F2245 intends to take in and acceptance and all other ASTM which ASTM F2245 appealed especially at the level of propellers, equipment, etc... and this may have implications not known so far.*
6. *It seems to me that the colossal implications of such decision had not been well understood by EASA.*
7. *There is no definition of the characteristics of aircraft in ASTM F2245*

(mass, Vso, etc.). The limit of 600kg and 45kts for Vs comes from the FAA.

8. *The success of the U.S. LSA is the fact that this is a declarative certification. This is not the case under the NPA. The level of difficulty of the ASTM is identical to the CS VLA, so there is no real relief,*
9. *Another relief of the LSA is the American pilot's licence. But in the NPA, the LSA is a fully-fledged aircraft. There is no relief on this item.*
10. *The creation of a 600kg category had been stigmatized by many ULM federations because of the possible confusion with ULM at 472.5kg. The resurgence of this notion of LSA in this text is therefore a future risk for microlights which today enjoys an approval scheme even more flexible than the ELA and whose the safety level is proven nowadays.*

In summary, there is no advantage to create explicitly this category (which is already in the ELA1) and there are several major risks for the future (particularly concerning aircrafts today register under the Annex 2).

response *Partially accepted*

Please refer to CRD Part I paragraph 8.
The resulting text of CS-LSA is attached to this CRD.

comment *134* comment by: *Féderation Française de Planeurs Ultralégers motorisés*

Concerning the creation of the subclass LSA the purpose of which is to facilitate the work of the European manufacturers already exporting in the USA, FFPLUM finds curious deterioration about definition introduced into the NPA. Actually, the American LSA class is strictly limited to a minimum stall speed without flaps of 45 kts and to a 120 kt maximum full power level speed. Also prohibited are the use of variable pitch propeller and retractable undercarriage.
If exonerating "European LSA" of this limitations, which justify the lightened regulation granted to this new class of aircraft by the FAA, the Agency does not achieve the goal that it is setted when creating this subclass.
If it really want to achieve this goal and support European manufacturer, FFPLUM recommend to adopt the original definition of the FAA LSA category without any change

response *Not accepted*

CS-LSA aeroplanes are certified by the Agency under the ELA process. This process is a certification by the Authority and not a declaration from the manufacturer. In that context, the Agency believes that it is possible to envisage more performing aircraft. This extended scope has been supported by other commentators.

comment *219* comment by: *DynAero Iberica*

Commentaires sur le CS LSA / Comments on CS LSA

1er proposition :

DynAero Ibérica propose la suppression de la CS LSA et a fortiori de toutes mentions explicites s'y rapportant présentes dans la NPA 2008-07 (y compris dans la note explicative).

OU, 2ème proposition :
dans la mesure où le code ASTM F2245 serait utilisé comme référence,

l'alignement des définitions de l'EASA avec celle de la FAA, ce qui se traduit par :
1.1 le remplacement du paragraphe LSA 1 (ii)
(ii) "A maximum stalling speed in the landing configuration (VS0) of not more than 45 knots CAS at the aircraft's maximum certificated Take-Off Mass and most critical centre of gravity."
par celui-ci :
(ii) "A maximum stalling speed in clean configuration (VS1) of not more than 45 knots at the aircraft's maximum certificated Take-Off Mass and most critical centre of gravity."

• 1.2 et l'ajout des paragraphes LSA 1 (v) et (vi):

(v) "A maximum airspeed in level flight with maximum continuous power (Vh) of not more than 120 knots CAS [in standard sea level atmospheric conditions]."

(vi) "A maximum operation altitude of not more than 10 000 feet."

Raisons :
1. La sous catégorie LSA n'apporte rien par rapport à la VLA mais complique la lecture et la future application du texte.
2. La définition d'un aéronef LSA est incluse dans la définition d'un aéronef VLA. Or, l'ASTM est très similaire au CS VLA, il n'y a donc pas dans les faits d'allègement significatif supplémentaire,
3. La définition retenue dans le cadre de la NPA pour un aéronef LSA n'est pas la même que celle retenue par la FAA (Vs non conforme, pas de limite de Vp, pas de limite d'altitude d'exploitation, etc...)
4. L'ASTM couvrirait donc en Europe des aéronefs ayant une énergie plus importante en Europe qu'aux USA, ce qui parait pour le moins curieux.
5. La référence à l'ASTM F2245 sous entend la prise et compte et l'acception de toutes les autres ASTM auxquels l'ASTM F2245 fait appel notamment au niveau des hélices, équipements, etc... et cela peut avoir des implications non connues à ce jour.
6. Il me semble que les implications colossales d'une telle décision n'ont pas été bien appréhendées par l'EASA.
7. Il n'y a pas de définition des caractéristiques des aéronefs dans l'ASTM F2245 (masse, Vso, etc.). La limitation à 600kg et 45kts de Vs vient de la FAA.
8. Le succès de la LSA américaine est le fait qu'il s'agit d'une certification déclarative. Ce n'est pas le cas dans le cadre de la NPA. Le niveau de difficulté de l'ASTM étant identique à celui d'une CS VLA, il n'y a donc pas d'allégement réel,
9. Un autre allègement de la LSA américaine est la licence de pilote. Or dans le NPA, le LSA est un aéronef à part entière. Il n'y a donc pas d'allégement sur ce point.
10. La création d'une catégorie à 600kg avait été stigmatisée par de nombreuses fédérations d'ULM en raison de la confusion possible avec l'ULM à 472.5kg. La réapparition de cette notion de LSA dans ce texte est donc un risque à terme pour les ULM d'aujourd'hui qui bénéficie d'un régime d'homologation encore bien plus souple que l'ELA et dont le niveau de sécurité est aujourd'hui prouvé.

En résumé, il n'y a aucun avantage a constituer de cette manière explicite cette catégorie (qui est de fait déjà dans l'ELA1) et il y a plusieurs risques majeurs pour l'avenir (notamment vis-à-vis des aéronefs aujourd'hui en annexe 2).

1st proposal:
DynAero Ibérica proposes to eradicate the CS LSA and therefore any explicit references within the NPA 2008-07 (including in the explanatory note).

OR, 2nd proposal :
Insofar as the code ASTM F2245 would be used as a reference, the alignment of definitions EASA with the FAA ones, which means:
1.1 replacement LSA paragraph 1 (ii)
(ii) "A maximum stalling speed in the landing configuration (VS0) of not more than 45 knots CAS at the aircraft's maximum certificated Take-Off Mass and most critical center of gravity."
by this paragraph :
(ii) "A maximum speed stalling in clean configuration (VS1) of not more than 45 knots at the aircraft's maximum certificated Take-Off Mass and most critical center of gravity."
1.2 and the addition of paragraphs LSA 1 (v) and (vi):
(v) "A maximum airspeed in level flight with maximum continuous power (Vh) of not more than 120 knots CAS [in standard sea level atmospheric conditions]."
(vi) "A maximum altitude operation of not more than 10 000 feet."

Reasons:
1. The sub-category LSA adds nothing compared to the VLA but complicates the reading and the future application of the text.
2. The definition of an aircraft LSA is included in the definition of an aircraft VLA. However, the ASTM is very similar to CS VLA, so there is not actually significant additional relief,
3. The definition used in connection with the NPA for an LSA aircraft is not the same as that adopted by the FAA (non-compliant Vs, no limit for the Vp, no limit concerning the operating altitude, etc...)
4. The ASTM would therefore cover aircraft in Europe with a greater energy in Europe than in the USA, which seems particularly curious.
5. The reference to ASTM F2245 intends to take in and acceptance and all other ASTM which ASTM F2245 appealed especially at the level of propellers, equipment, etc... and this may have implications not known so far.
6. It seems to me that the colossal implications of such decision had not been well understood by EASA.
7. There is no definition of the characteristics of aircraft in ASTM F2245 (mass, Vso, etc.). The limit of 600kg and 45kts for Vs comes from the FAA.
8. The success of the U.S. LSA is the fact that this is a declarative certification. This is not the case under the NPA. The level of difficulty of the ASTM is identical to the CS VLA, so there is no real relief,
9. Another relief of the LSA is the American pilot's licence. But in the NPA, the LSA is a fully-fledged aircraft. There is no relief on this item.
10. The creation of a 600kg category had been stigmatized by many ULM federations because of the possible confusion with ULM at 472.5kg. The resurgence of this notion of LSA in this text is therefore a future risk for microlights which today enjoys an approval scheme even more flexible than the ELA and whose the safety level is proven nowadays.

In summary, there is no advantage to create explicitly this category (which is already in the ELA1) and there are several major risks for the future (particularly concerning aircrafts today register under the Annex 2).

response | *Partially accepted*

Please refer to CRD Part I paragraph 8.
The resulting text of CS-LSA is attached to this CRD.

comment *280* comment by: *Klaus Erger*

Comment 18
Page 42 - B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General - LSA 3 Aeroplane categories

Comment 2 also applies here

Comment 19
Page 42 - B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General - LSA 3 Aeroplane categories

Negative. A limitation to VFR day is considered as not acceptable, as the standard offers well suitable standards also for VFR night operation and soon IFR operation. There is no real reason visible why this can not be accepted as well in EASA world, like in FAA world.

We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. **This can be clearly verified through the 3 years plus LSA experience in USA.**

response *Noted*

Please see CRD Part I paragraph 8.

comment *285* comment by: *Drive & Fly Luftfahrt GmbH*

Comments on CS LSA

Drive and Fly proposes to eradicate the CS LSA and therefore any explicit references within the NPA 2008-07 (including in the explanatory note).

Reasons:

1. *The sub-category LSA adds nothing compared to the VLA but complicates the reading and the future application of the text.*
2. *The definition of an aircraft LSA is included in the definition of an aircraft VLA. However, the ASTM is very similar to CS VLA, so there is not actually significant additional relief,*
3. *The definition used in connection with the NPA for an LSA aircraft is not the same as that adopted by the FAA (non-compliant Vs, no limit for the Vp, no limit concerning the operating altitude, etc...)*
4. *The ASTM would therefore cover aircraft in Europe with a greater energy in Europe than in the USA, which seems particularly curious.*
5. *The success of the U.S. LSA is the fact that this is a declarative certification. This is not the case under the NPA. The level of difficulty of the ASTM is identical to the CS VLA, so there is no real relief,*
6. *The creation of a 600kg category had been stigmatized by many ULM federations because of the possible confusion with ULM at 472.5kg. The resurgence of this notion of LSA in this text is therefore a future risk for*

microlights which today enjoys an approval scheme even more flexible than the ELA and whose the safety level is proven nowadays.

In summary, there is no advantage to create explicitly this category (which is already in the ELA1) and there are several major risks for the future (particularly concerning aircrafts today register under the Annex 2).

response *Partially accepted*

Please refer to CRD Part I paragraph 8.
The resulting text of CS-LSA is attached to this CRD.

comment *474* comment by: *Tegelbeckers*

Comment 18
Page 42 - B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General - LSA 3 Aeroplane categories
Comment 2 also applies here
Comment 19
Page 42 - B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General - LSA 3 Aeroplane categories
Negative. A limitation to VFR day is considered as not acceptable, as the standard offers well suitable standards also for VFR night operation and soon IFR operation. There is no real reason visible why this can not be accepted as well in EASA world, like in FAA world.
We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.

response *Noted*

Please see CRD Part I paragraph 8.

comment *524* comment by: *Austro Control GmbH*

Comment:
This NPA is not identical to the US LSA (CAS 120, fix prop, fix gear). Therefore the transfer of aircraft to and from the US market is not possible without technical changes. This is a big disadvantage/burden for the industry and owner.

Proposal:
Adopt the US LSA without any differences or initiate an harmonization process with the FAA.

response *Noted*

Please see CRD Part I paragraph 8 (CS-LSA) and Paragraph 10 (harmonisation with FAA).

comment *690* comment by: *networxx Ltd.*

view of a privat pilot:

as I am flying since over 20 years and I had been trained on (old) Cesnas I am very excited that Europe will become the LSA class.

For more than over 10 years ago me and my flying-friends have changed to the high-end European ULs.

Not only the cost side is for us important - what makes that class sexy is the flexibility: many small landing possibilities etc. Therfore I would like to see the chance to fly at night with the LSA class as well as I wish to use an autopilot! The offerd airplanes in the market can easy secure that demand.

If EASA keeps the LSA regulations similar easy to the UL class I see a new big demand of flying activities in Europe. Therefore I plan to set up a charter company for high-end LSAs and I am looking very much forward to invest that money.

regards Andreas von Veltheim, Berlin

response *Noted*

Please see CRD Part I paragraph 2 (Task BR.010 to explore how to go beyond the present proposals), and paragraph 8 (CS-LSA).

comment *720* comment by: *Europe Air Sports, VP*

At present, the EASA only plans to develop new specification for Light Sport **Aeroplanes.** We recommend- for the benefit of future flexibility - to expand this chapter to **Aircraft.** It is assumed that the present ELA process will also be applied to sailplanes, balloons and other aerial vehicles but it would make it clear that other than aeroplane specifications could be developed in the future. This would add flexibility and greatly enhance the options for technical progress and innovation.

response *Noted*

Please see CRD Part I paragraph 2 (criteria for ELA 1 and ELA 2).

B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General p. 42

comment *251* comment by: *Ronald MEYER*

Comment 12
Page 42 - B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high, that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with

	additional safety. As a fact, reducing the hurdles leads to a much more efficient market self control, than could be achieved by Agency control. This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing. In all countries, where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II), it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.
response	*Not accepted* Please see CRD Part I paragraph 4 for POA. For DOA, Acceptance of designers that "hold" an ASTM or ISO qualification cannot be seen as an "approved" alternative to a DOA. These "approvals" are not issued and controlled as required by the Basic Regulation. It would however be possible to benefit both in content and time from the implementation of these standards by showing that the implemented procedures comply (partly) with the DOA requirements of Part-21 Subpart J. This could be reflected in an AMC to be developed under task MDM.032 (d).

comment	*793* comment by: *Herbert HERGET* Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high, that it can hold with those as found for Part 23 aircraft.=2 0 There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Th erefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As a fact, reducing the hurdles leads to a much more efficient market self control, than could be achieved by Agency control. This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing. In all countries, where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II), it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.
response	*Not accepted* Please see CRD Part I paragraph 4 for POA. For DOA, Acceptance of designers that "hold" an ASTM or ISO qualification cannot be seen as an "approved" alternative to a DOA. These "approvals" are not issued and controlled as required by the Basic Regulation. It would however be possible to benefit both in content and time from the implementation of these standards by showing that the implemented procedures comply (partly) with the DOA requirements of Part-21 Subpart J. This could be reflected in an AMC to be developed under task MDM.032 (d).

comment	*794* comment by: *Herbert HERGET* Negative. A limitation to VFR day is considered as not acceptable, as the standard offers well suitable sta ndards also for aerobatics, VFR night operation and soon IFR operation. There is no reason visible why this can not be accepted as well in EASA world, like in FAA world. Particularly the limitation to "non-aerobatic" use is not comprehensible. Just as aerobatics are defined as a "sport", an aeroplane category with the term "sport" in its name should not ignore this. It should be in responsibility of the design organization to define the aircraft as capable for aerobatics. This does not mean that every pilot can operate the aircraft in aerobatics, night VFR or IFR without more ado. This still requires the proper upgrade or license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in these conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.
response	*Noted* Please see CRD Part I paragraph 2 and paragraph 8.

B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General - LSA 1 Applicability p. 42

comment	*19* comment by: *SHVL Chocen* Subpart A - general ..... Light Sport Aeroplane complies with the following criteria: (i) A Maximum Take - Off Mass of not more than 600kg for aeroplane not intended for operation on water or 650 kg for aeroplane intended for operation on ground and water (amphibia) SHVL is just building a LSA amphibia and feels, that the increased weight limit for this category in ASTM Standard is rational. Let us avoid repeating the „Heavy Ultralights" situation, when the 450kg MTOM limit was complied with only when the occupants weight was 60 kg each with 20 l of fuel in tanks! The statistics research carried here among 68 amateur pilots some years ago showed, that 60% of them fall into the mass range 81-90 kg!
response	*Accepted* Agreed: text will be modified along those lines.

comment	*47* comment by: *UL-Flyer* Use the chance by introducing a new standard and include basic saftey features in the specification which are common since years for every car manucfactuar such as : • **Headrests** in case of a crash will give high additional passive savtey. • **Airbags;** There are systems on the Market which are included in the seatbelts already. Furthermore is the **Ballistic Saftey System** like specified in Ultralight Aircrafts another saftey system which safed already hundreds of pilots life in case of loosing control during flight.

	Add all these features to the MTOW like it is done in the UL's for the Ballistic System. Regards Uwe Knicker
response	*Noted* These proposals are outside the scope of this NPA. The Agency will consider addressing such items under a separate rulemaking tasks.

comment	*187* comment by: *Ingmar Hedblom* The development of a Certification Specification for Light Sport Aeroplanes is highly supported and especially that the ASTM standard is suggested as the airworthiness code and that there is an almost identical definition as the FAA one. One suggestion is that **650kg MTOM** should be allowed for seaplane configurations like for the FAA.
response	*Accepted* Agreed: text will be modified along those lines.

comment	*399* comment by: *Ronald MEYER* Issue of a "special airworthiness certificate (SAC)" according to FAA-LSA procedure instead of a type certification (TC) for CS-LSA. In return, criteria can also be adapted to FAA-LSA.
response	*Not accepted* Please refer to CRD Part I paragraph 2.

comment	*465* comment by: *Ronald MEYER* FAA-LSA class is strictly limited to a minimum stall speed without flaps to 45 kts and to a 120 kts maximum full power level speed. Also prohibited are the use of variable pitch propellers and retractable gears. If exonerating CS-LSA of these limitations, which justify the lightened regulation granted to this new class of aircraft by the FAA, this .will be an argument not to grant the same level of simplification to CS-LSA in Europe.
response	*Not accepted* The LSA aeroplanes are subject to the ELA proces that lead to certification. In that context extending the scope of CS-LSA was found acceptable.

B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General - LSA 3 Aeroplane categories p. 42

comment	*120* comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.* Negative. A limitation to VFR day is considered as not acceptable, as the standard offers well suitable standards also for VFR night operation and soon IFR operation. There is no real reason visible why this can not be accepted as

well in EASA world, like in FAA world.
We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.

response *Partially accepted*

Please see CRD Part I paragraph 2 (criteria for ELA 1 and ELA 2) and paragraph 8 (CS-LSA).

comment *128* comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.
There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.
This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.
In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Not accepted*

For POA please see CRD part I paragraph 4.
For DOA:

Acceptance of designers that "hold" an ASTM or ISO qualification cannot be seen as an "approved" alternative to a DOA. These "approvals" are not issued and controlled as required by the Basic Regulation. It would however be possible to benefit both in content and time from the implementation of these standards by showing that the implemented procedures comply (partly) with the DOA requirements of Part-21 Subpart J. This could be reflected in an AMC to be developed under task MDM.032 (d).

comment *131* comment by: *Ultraleicht-Flugverein Saar-Pfalz e.V.*

Negative.
A limitation to "non-aerobatic" is considered as not acceptable. There is no real reason visible why this can not be accepted as well in EASA world, like in FAA world. This can be clearly verified through the 3 years plus LSA experience in USA.
It should be in responsibility of the design organization to define the aircraft as capable for aerobatics. Even aerobatic is defined as "sport". An aeroplane category with the term "sport" in its name cannot ignore this.

response *Partially accepted*

Please see CRD Part I paragraph 2 (criteria for ELA 1 and ELA 2) and paragraph 8 (CS-LSA).

comment *178* comment by: *Alexander Eich*

Negative. A limitation to VFR day is considered as not acceptable, as the standard offers well suitable standards also for VFR night operation and soon IFR operation. There is no real reason visible why this can not be accepted as well in EASA world, like in FAA world.
We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.

response *Partially accepted*

Please see CRD Part I paragraph 2 (criteria for ELA 1 and ELA 2) and paragraph 8 (CS-LSA).

comment *252* comment by: *Ronald MEYER*

Comment 13
Page 42 - B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General - LSA 3 Aeroplane categories

Negative. A limitation to VFR day is considered as not acceptable, as the standard offers well suitable standards also for aerobatics, VFR night operation and soon IFR operation. There is no reason visible why this can not be accepted as well in EASA world, like in FAA world. Particularly the limitation to "non-aerobatic" use is not comprehensible. Just as aerobatics are defined as a "sport", an aeroplane category with the term "sport" in its name should not ignore this. It should be in responsibility of the design organization to define the aircraft as capable for aerobatics. This does not mean that every pilot can operate the aircraft in aerobatics, night VFR or IFR without more ado. This still requires the proper upgrade or license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in these conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.

response *Partially accepted*

Please see CRD Part I paragraph 2 (criteria for ELA 1 and ELA 2) and paragraph 8 (CS-LSA).

comment *256* ❖ comment by: *Gorden WIEGELS*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined,

that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Not accepted

For POA please see CRD Part I paragraph 4.
For DOA:

Acceptance of designers that "hold" an ASTM or ISO qualification cannot be seen as an "approved" alternative to a DOA. These "approvals" are not issued and controlled as required by the Basic Regulation. It would however be possible to benefit both in content and time from the implementation of these standards by showing that the implemented procedures comply (partly) with the DOA requirements of Part-21 Subpart J. This could be reflected in an AMC to be developed under task MDM.032 (d).

comment

267 comment by: *Gorden WIEGELS*

Negative. A limitation to VFR day is considered as not acceptable, as the standard offers well suitable standards also for VFR night operation and soon IFR operation. There is no real reason visible why this can not be accepted as well in EASA world, like in FAA world.
We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.

response

Partially accepted

Please see CRD Part I paragraph 2 (criteria for ELA 1 and ELA 2) and paragraph 8 (CS-LSA).

comment

304 comment by: *Karg*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights - mostly also sold as LSA in FAA world - in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are already flying (LSA, homebuilt aircrafts, Annex II), it is proven that deregulation in general is not reason for less safety, much more it can even improve safety.

response

Not accepted

For POA please see CRD Part I paragraph 4.
For DOA:

Acceptance of designers that "hold" an ASTM or ISO qualification cannot be seen as an "approved" alternative to a DOA. These "approvals" are not issued and controlled as required by the Basic Regulation. It would however be possible to benefit both in content and time from the implementation of these standards by showing that the implemented procedures comply (partly) with the DOA requirements of Part-21 Subpart J. This could be reflected in an AMC to be developed under task MDM.032 (d).

comment

305 comment by: *Karg*

Negative. A limitation to VFR day is considered as not acceptable, as the standard offers well suitable standards also for VFR night operation and soon IFR operation. There is no real reason visible why this can not be accepted as well in EASA world, like in FAA world.
We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.

response

Partially accepted

Please see CRD Part I paragraph 2 (criteria for ELA 1 and ELA 2) and paragraph 8 (CS-LSA).

comment

326 comment by: *TECNAM*

Comment 2 also applies here

response

Not accepted

Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment

327 comment by: *TECNAM*

	Negative. A limitation to VFR day is considered as not acceptable, as the standard offers well suitable standards also for VFR night operation and soon IFR operation. There is no real reason visible why this can not be accepted as well in EASA world, like in FAA world. We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.
response	*Partially accepted* Please see CRD Part I paragraph 2 (criteria for ELA 1 and ELA 2) and paragraph 8 (CS-LSA).

comment	*362* ❖ comment by: *O. Reinhardt / Flightdesign* Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft. There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control. This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing. In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety. This comment is also valid for several other locations as linked, and for the Who does what- Table, there section "organisational approval" (not possible to link exactly)
response	*Not accepted* For POA please see CRD Part I paragraph 4. For DOA: Acceptance of designers that "hold" an ASTM or ISO qualification cannot be seen as an "approved" alternative to a DOA. These "approvals" are not issued and controlled as required by the Basic Regulation. It would however be possible to benefit both in content and time from the implementation of these standards by showing that the implemented procedures comply (partly) with the DOA requirements of Part-21 Subpart J. This could be reflected in an AMC to be developed under task MDM.032 (d).

comment 374 comment by: *O. Reinhardt / Flightdesign*

Negative. A limitation to VFR day is considered as not acceptable, as the standard offers well suitable standards also for VFR night operation and soon IFR operation. There is no real reason visible why this can not be accepted as well in EASA world, like in FAA world.

We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.

response *Partially accepted*

Please see CRD Part I paragraph 2 (criteria for ELA 1 and ELA 2) and paragraph 8 (CS-LSA).

comment 390 comment by: *Thomas Wendt*

Comment 18
Page 42 - B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General - LSA 3 Aeroplane categories

Comment 2 also applies here

Comment 19
Page 42 - B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General - LSA 3 Aeroplane categories

Negative. A limitation to VFR day is considered as not acceptable, as the standard offers well suitable standards also for VFR night operation and soon IFR operation. There is no real reason visible why this can not be accepted as well in EASA world, like in FAA world.
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response *Partially accepted*

Please see CRD Part I paragraph 2 (criteria for ELA 1 and ELA 2) and paragraph 8 (CS-LSA).

Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment 400 ❖ comment by: *Flight Design GmbH Matthias Betsch CEO*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined,

that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response

Not accepted

For POA please see CRD Part I paragraph 4.
For DOA:

Acceptance of designers that "hold" an ASTM or ISO qualification cannot be seen as an "approved" alternative to a DOA. These "approvals" are not issued and controlled as required by the Basic Regulation. It would however be possible to benefit both in content and time from the implementation of these standards by showing that the implemented procedures comply (partly) with the DOA requirements of Part-21 Subpart J. This could be reflected in an AMC to be developed under task MDM.032 (d).

comment

419 comment by: *Flight Design GmbH Matthias Betsch CEO*

Negative. A limitation to VFR day is considered as not acceptable, as the standard offers well suitable standards also for VFR night operation and soon IFR operation. There is no real reason visible why this can not be accepted as well in EASA world, like in FAA world.
We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.

response

Partially accepted

Please see CRD Part I paragraph 2 (criteria for ELA 1 and ELA 2) and paragraph 8 (CS-LSA).

comment

463 comment by: *www.fascination-pilots.de*

Negative. A limitation to VFR day is considered as not acceptable, as the standard offers well suitable standards also for VFR night operation and soon IFR operation. There is no real reason visible why this can not be accepted as well in EASA world, like in FAA world.
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response	*Partially accepted* Please see CRD Part I paragraph 2 (criteria for ELA 1 and ELA 2) and paragraph 8 (CS-LSA).

comment	*497* comment by: *light-wings Oliver Liedmann* Comment 2 also applies here Negative. A limitation to VFR day is considered as not acceptable, as the standard offers well suitable standards also for VFR night operation and soon IFR operation. There is no real reason visible why this can not be accepted as well in EASA world, like in FAA world. We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.
response	*Partially accepted* Please see CRD Part I paragraph 2 (criteria for ELA 1 and ELA 2) and paragraph 8 (CS-LSA). Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment	*518* comment by: *aeroklaus* Comment 18 Page 42 - B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General - LSA 3 Aeroplane categories Comment 2 also applies here
response	*Not accepted* Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment	*519* comment by: *aeroklaus* Comment 19 Page 42 - B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General - LSA 3 Aeroplane categories Negative. A limitation to VFR day is considered as not acceptable, as the standard offers well suitable standards also for VFR night operation and soon IFR operation. There is no real reason visible why this can not be accepted as well in EASA world, like in FAA world.

We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.

response *Partially accepted*

Please see CRD Part I paragraph 2 (criteria for ELA 1 and ELA 2) and paragraph 8 (CS-LSA).

comment *598* comment by: *klaus M*

Comment 18
Page 42 - B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General - LSA 3 Aeroplane categories
Comment 2 also applies here

response *Not accepted*

Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment *599* comment by: *klaus M*

Comment 19
Page 42 - B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General - LSA 3 Aeroplane categories
Negative. A limitation to VFR day is considered as not acceptable, as the standard offers well suitable standards also for VFR night operation and soon IFR operation. There is no real reason visible why this can not be accepted as well in EASA world, like in FAA world.
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response *Partially accepted*

Please see CRD Part I paragraph 2 (criteria for ELA 1 and ELA 2) and paragraph 8 (CS-LSA).

comment *612* comment by: *Cessna Aircraft Company*

Negative - the proposal to limit aircraft to "Day VFR" manufacture standards does not promote safe flying.

Proposal 1: Limiting the certification of a LSA 3 aircraft to "VFR day" operation only is counter productive to flight safety. The pilot flying the aircraft may be limited to "VFR day" flight only, but the aircraft manufacturer needs the flexibility to produce an aircraft with the required safety and operating equipment to fly at night and in IFR operations. One of the leading causes of

fatal general aviation accidents is a pilots inability to fly or recover an aircraft after entering clouds, fog, heavy rain, or other like weather condition. Not allowing an aircraft to be equipped with basic night and IFR equipment could quickly translate to increased fatal accident rates in Europe.

response

Partially accepted

Please see CRD Part I paragraph 2 (criteria for ELA 1 and ELA 2) and paragraph 8 (CS-LSA).

comment

643 comment by: *Martin Josef Warken*

Comment 18
Page 42 - B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General - LSA 3 Aeroplane categories

Comment 2 also applies here

response

Not accepted

Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment

644 comment by: *Martin Josef Warken*

Comment 19
Page 42 - B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General - LSA 3 Aeroplane categories

Negative. A limitation to VFR day is considered as not acceptable, as the standard offers well suitable standards also for VFR night operation and soon IFR operation. There is no real reason visible why this can not be accepted as well in EASA world, like in FAA world.
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response

Partially accepted

Please see CRD Part I paragraph 2 (criteria for ELA 1 and ELA 2) and paragraph 8 (CS-LSA).

comment

671 comment by: *EAA*

Page 42 - B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General - LSA 3 Aeroplane categories

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response *Partially accepted*

Please see CRD Part I paragraph 2 (criteria for ELA 1 and ELA 2) and paragraph 8 (CS-LSA).

comment *719* comment by: *procomposite*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

There is no connection visible, that a self declaration of design and production quality system and correctness of results has any negative effect on the level of safety achieved in operation. Therefore, based on this explicit experience, any rising of requirements / requirement of approvals can not be argued with additional safety. As fact, reducing the hurdles leads to a much more efficient market self control, that could be achieved by Agency control.

This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

In all countries where deregulated airplanes are flying already (LSA, homebuilt aircrafts, Annex II) it is clearly proven that deregulation in general is not a reason for less safety and can even improve safety.

response *Not accepted*

For POA please see CRD Part I paragraph 4.
For DOA:

Acceptance of designers that "hold" an ASTM or ISO qualification cannot be seen as an "approved" alternative to a DOA. These "approvals" are not issued and controlled as required by the Basic Regulation. It would however be possible to benefit both in content and time from the implementation of these standards by showing that the implemented procedures comply (partly) with the DOA requirements of Part-21 Subpart J. This could be reflected in an AMC to be developed under task MDM.032 (d).

comment *743* comment by: *Oliver*

Based on the explicit experience of the 3 years plus LSA operation in USA, and based upon the most recent operational experience of advanced microlights (mostly also sold as LSA in FAA world) in Europe, it can be clearly underlined, that even at this level of deregulation the level of safety achieved is so high that it can hold with those as found for Part 23 aircraft.

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This is the background for the comments proposing solutions on how to go with the EASA DOA and POA approvals by accepting existing ASTM or DIN ISO qualifications of companies, without further explicit checking or re-auditing.

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response

Not accepted

For POA please see CRD Part I paragraph 4.
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comment

744 comment by: *Oliver*

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response

Partially accepted

Please see CRD Part I paragraph 2 (criteria for ELA 1 and ELA 2) and paragraph 8 (CS-LSA).

comment

768 comment by: *Air Marugan*

Comment 18

Comment 2 also applies here

response

Not accepted

Task BR.010 may allow to go beyond what is proposed here (please see paragraph 2 of CRD Part I).

comment 769 comment by: *Air Marugan*

Comment 19

Negative. A limitation to VFR day is considered as not acceptable, as the standard offers well suitable standards also for VFR night operation and soon IFR operation. There is no real reason visible why this can not be accepted as well in EASA world, like in FAA world.
We are talking here of initial airworthiness. So opening this up does not mean, that an LPL licensed pilot can operate the aircraft night VFR or IFR. This still requires the proper license with endorsement. Also, requirements to equipment for operation at night and under IFR are also not overruled. So allowing principally the usage of the aircraft in this conditions, under the limitations of the ELA concept, does not pose a factual reduction in level of safety. This can be clearly verified through the 3 years plus LSA experience in USA.

response *Partially accepted*

Please see CRD Part I paragraph 2 (criteria for ELA 1 and ELA 2) and paragraph 8 (CS-LSA).

B. Draft Rules - II. New Certification Specifications for Light Sport Aeroplanes - Subpart A - General - LSA 5 Airworthiness code p. 42

comment 135 comment by: *Féderation Française de Planeurs Ultralégers motorisés*

When it comes to the certification codes ELA1 aircraft could be based on, FFPlUM draws the attention of the Agency to the very particular nature of the ASTM system which is proposed as one of the acceptable codes.
It is indeed a private association which establishes its norms from the proposals of voluntary members. The regulations are accepted by votes in the majority of two thirds. The technical code that results from this process is into perpetual evolution and the risk is great to see lobbies pushing for passing technical requirements whose only virtue will be to draw out competitors.
Given that at this time, all the requirements of the ASTM codes are included in CS VLA we recommend the suppression of the reference to ASTM code in the proposals of the Agency unless it adopts the original definition of the FAA LSA category.

response *Noted*

Please see CRD Part I paragraphs 8 and 10.

comment 230 comment by: *Lyndhurst Touchdown*

Our company proposes deletion of the CS LSA.

Justification:
This sub-class of aircraft appears to offer little or no advantage for designers, manufacturers or pilots compared to the broader proposal for VLA aircraft.

The definition is substantially different from the American FAA light sport aircraft category and compliance with European proposals would not benefit designers or manufacturers on a world stage.

If the proposal were adopted European aircraft would be more tightly controlled than the US equivalent (assuming that the FAA LSA category can be considered as being comparable).

The creation of a new 600 kg category could lead to confusion between existing microlight aircraft and the new category. In some countries microlight aircraft are already permitted at weights approaching 600 kg.

Existing microlight aircraft production within Europe benefits from a light regulatory system with good airworthiness credentials. Any attempt to encompass existing microlight aircraft within the proposed LSA category would be damaging to existing manufacturers and impose additional unnecessary costs on this established and generally well regulated aviation group.

response *Noted*

Task BR.010 will explore the possibility to go beyond what is proposed in this CRD. Please see CRD Part I paragraph 2.

comment *441* comment by: *P&M Aviation*

ASTM standard F2245 only covers "powered fixed wing light sport aircraft" this requirement needs to also include some provisions for Weight Shift Controlled aircraft using either F2317 (with some amendments) or BCAR Section S

response *Not accepted*

Weight shift controlled aircraft should be Annex II aircraft. They are therefore not in the Agency's remit. In addition, there is a strong consensus among stakeholders that Annex II should not be changed.

comment *679* comment by: *DGAC France*

1a. COMMENT TO :

- ü **Draft Opinion(s)**

Amendment to Commission Regulation (EC) No. 1702/2003 Part 21

1b. AFFECTED PARAGRAPH :

B, part II: new certification specification for LSA

2. COMMENT:

La DGAC-F ne supporte pas le contenu proposé du CS-LSA .
Courtesy translation:
DGAC-F does not support the CS-LSA proposed contents..

3. JUSTIFICATION:

L'ASTM définit un certain nombre de règles techniques qui sont très proches du code FAR 23 amendement 7.
Toutefois, ces règles peuvent être à tout moment modifiées par ASTM International sans aucune maîtrise de l'AESA; cela ne va pas dans le sens de l'égalité de traitement et pourrait avoir des effets imprévus sur la sécurité des vols. Il nous semble anormal que l'AESA autorise un code qu'elle ne peut pas contrôler. Notre commentaire contre la création du CS LSA est en cohérence avec la remarque proposant une AMC 21A.16 A autorisant l'utilisation de la FAR 23 amdt 7 et qui devrait répondre complètement au besoin.
Enfin, il conviendrait de confirmer que les avions certifiés selon la FAR 23 amdt 7 devraient obtenir sans problème leur reconnaissance LSA aux Etats-Unis.

	Courtesy translation: First of all, ASTM defines technical rules that are very close to FAR 23 amendment 7. Nevertheless, those rules can, at any time, be modified by ASTM International without any EASA control; this is inconsistent with the objective of equal treatment and could have unintended effect on the safety level. DGAC believes that EASA should not use a rule that it does not control. Our comment against CS LSA creation is consistent with the comment on AMC 21A.16 A authorising the use of FAR 23 amdt 7 which would perfectly fulfil the need. Last but not least, the aeroplanes certified with FAR 23 amdt 7 should obtain without any great difficulties their LSA acceptance in the USA and it should be confirmed.
response	*Partially accepted* The proposal relative to FAR 23 amendment 7 is accepted: please see CRD Part I paragraph 2. The proposal to delete CS-LSA is not accepted: the Agency believes that this code introduces proportionate standards for such aeroplanes. It also improves the harmonisation with the US.

Appendix A – Annex I to CRD 2008-07 Part II

European Aviation Safety Agency

Certification Specifications for Light Sport Aeroplanes

CS-LSA

CONTENTS

CS–LSA – Light Sport Aeroplanes

EASA Certification Specifications for Light Sport Aeroplanes

CS-LSA
Book 1

Certification Specifications

Subpart A - General

1 - Applicability

This airworthiness code is applicable to Light Sport Aeroplane that comply with the following criteria:

(a) A Maximum Take-Off Mass of not more than 600 kg for aeroplanes not intended to be operated on water or 650 kg for aeroplanes intended to be operated on water.

(b) A maximum stalling speed in the landing configuration (VS0) of not more than 45 knots CAS at the aircraft's maximum certificated Take-Off Mass and most critical centre of gravity.

(c) A maximum seating capacity of no more than two persons, including the pilot.

(d) A single, non-turbine engine fitted with a propeller.

(e) A non-pressurized cabin

2 – Referenced Standards

The ASTM Standards referenced in this specification have to be applied in the following revision:

F2245-09 Design and Performance of a Light Sport Airplane

F2483-05 Maintenance and the Development of Maintenance Manuals for Light Sport Aircraft

F2746-09 Standard Specification for Pilots's operating Handbook (POH) for Light Sport Airplane

F2339-06 Design & Manufacture of Reciprocating Spark Ignition Engines

F2506-07 Design and Testing of Fixed-Pitch or Ground Adjustable Propellers

F2538-07a Design & Manufacture of Reciprocating Compression Ignition Engines

F2316-08 Airframe Emergency Parachutes –

3 - Availability of Referenced Document

Reference Documents are available from ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959 USA
http://www.astm.org

Subpart B - Standard Specification for Design and Performance of a Light Sport Airplane

Applicable Specifications:

ASTM F2245-09 applies including all Annexes and Appendices, except as modified below:

Action	Requirement to be read as follows:	
Modify	1.2	This specification is applicable to aeroplanes intended for "non-aerobatic" and for "VFR day" operation only. Non-aerobatic operation includes - (a) Any manoeuvre incidental to normal flying; (b) Stalls (except whip stalls); and (c) Eights, chandelles, and steep turns, in which the angle of bank is not more than 60°. (d) Spinning for aeroplanes complying with 4.5.9.2.
Delete	1.3	
Modify	3.2.34	VNE – never exceed speed
Modify	4.1.1.2	… must be less than or equal to 0.9VDF and greater than or equal to 1.1VC. In addition, VNE must be greater than or equal to VH.
Add	4.1.3	When the aircraft is equipped with a variable pitch propeller and / or a retractable landing gear, the various configurations of those devices have to be considered, as applicable.
Add	4.2.1.3	The maximum empty weight W_E (N) as defined in 4.2.1.1 shall be determined. W_E shall be provided as operational limitation for the aircraft
Add	4.3.2	A propeller that can be controlled in flight but does not have constant speed controls must be so designed that –
	4.3.2.1	4.3.1 is met with the lowest possible pitch selected for the takeoff and climb case, and
	4.3.2.2	4.3.1 is met with the highest possible pitch selected for the glide case.
Add	4.3.3	A controllable pitch propeller with constant speed controls must comply with the following requirements:
	4.3.3.1	With the governor in operation, there must be a means to limit the maximum engine rotational speed to the maximum allowable take-off speed, and
	4.3.3.2	With the governor inoperative, there must be a means to limit the maximum engine rotational speed to 103% of the maximum allowable take-off speed with the propeller blades at the lowest possible pitch and the aeroplane stationary with no wind at full throttle position.
Add	4.6.1	Ground Vibration Test – For aircraft exceeding Vne 200 km/h (108 kt) a ground vibration test with subsequent analysis of the vibration modes and frequencies and potential flutter cases must show the aircraft to be free from flutter before verification in flight.
	4.6.2	This ground vibration test and analysis may be omitted when there is clear reason to assume freedom of flutter due to compliance with all of the following:
	4.6.2.1	Reasonable analysis following the Airframe and Equipment Engineering Report No. 45 (as corrected) 'Simplified Flutter Prevention Criteria' (published by the Federal Aviation Administration) shows the aircraft to be free from flutter risk
	4.6.2.2	The airplane
	4.6.2.2.2	does not have T-tail, V-tai or boom-tail or other unconventional tail configurations

	4.6.2.2.5	is equipped with fixed fin tail surfaces
	4.6.2.2.6	does not have significant amount of sweep
	4.6.2.2.7	does not have unusual mass concentrations along the wing span (such as floats or fuel tanks in the outer wing panels)
Add	4.5.2.3	The control force to achieve the positive limit manoeuvring load factor (n1) shall not be less than 70 N in the clean configuration at the aft centre of gravity limit. The control force increase is to be measured in flight from an initial n=1 trimmed flight condition at VC.
	4.5.2.4	If flight tests are unable to demonstrate a manoeuvring load factor of n1, then the minimum control force shall be determined using the ratio of n1 to the demonstrated load factor. Control forces and gradients shall not be extrapolated by more than 0.5 'g' beyond the demonstrated load factor.
Modify	4.5.4.2,	change VS1 against 1.1VS1
Modify	4.5.5.2,	change VS1 against 1.2VS1
Modify	4.5.6	contents in parenthesis to be read (1.1 * VS to maximum allowable speed specified in the POH, both as appropriate to the configuration)
Modify	4.5.7	Wings level Stall and Stall Warning
	4.5.7.1	It shall be possible to preven more than 20° of roll or yaw by normal use of the controls during the stall and she recovery at all weight and CG combinations
	4.5.7.2	A stall warning can be omitted when, during stalling in level flight
	4.5.7.2.1	It is possible to initiate and correct a roll motion using aileron control alone while maintaining rudder control at neutral position
	4.5.7.2.2	The aeroplane does not have a noticeable tendency to drop one wing while aileron and rudder controls are held neutral
	4.5.7.3	On aeroplanes that do not meet requirements under 4.5.7.2.
	4.5.7.3.1	in both, straight and turning flight, with flaps and landing gear in any normal position, a clear and distinctive stall warning must exist;
	4.5.7.3.2	The stall warning must not occur at normal operating speeds, but must occur sufficiently before the stall to allow the pilot to regain level flight;
	4.5.7.3.3	The stall warning may be furnished either through the inherent aerodynamic qualities (e.g. buffeting) of the aeroplane or by a device that clearly indicates the stall.
Modify	4.6	Vibrations-Flight testing shall not reveal, by pilot observation, heavy buffeting, excessive airframe or control vibrations, flutter (with proper attempts to induce it), or control divergence, at any speed from VSO to VDF (except as associated with a stall).
Modify	4.7	Ground and Water Control and Stability.
Add	4.7.3	A seaplane or amphibian may not have dangerous or uncontrollable porpoising characteristics at any normal operating speed on the water.
Add	4.8	Spray Characteristics – Spray may not dangerously obscure the vision of the pilots or damage the propeller or other parts of a seaplane or amphibian at any time during taxiing, take-off, and landing.
Modify	5.1.3.1	… without detrimental permanent deformation …
Modify	5.8.1.7,	implement the following changes in Fig. 6 (i) change in Fig 6 (a) and Fig 6 (c) application of the rearward force from ground contact point to the wheel axle (ii) change in Fig 6 (c) the value of the vertical load from 3.2 x Static Load to 2.25 x Static Load.
Add	5.10.2	Each aeroplane with retractable landing gear must be designed to protect

		each occupant in a landing
	5.10.2.1	With the wheels retracted;
	5.10.2.2	With moderate descent velocity
	5.10.2.3	Assuming, in the absence of a more rational analysis (1) a downward ultimate inertia force of 3g and (2) a coefficient of friction of 0.5 at the ground
Modify	6.10.1	… ability to reach all controls for smooth, positive and conventional recognition and operation shall be provided.
Add	6.11	Landing Gear Retracting Mechanism
	6.11.1	Each landing gear retracting mechanism and its supporting structure must be designed for the maximum flight load factors occurring with the gear retracted.
	6.11.2	For retractable landing gears it must be shown that extension and retraction of the landing gear are possible without difficulty up to VLO.
	6.11.3	An aircraft equipped with a non-manually operated landing gear must have an auxiliary means of extending the gear.
	6.11.4	If a retractable landing gear is used, there must be a means to inform the pilot that the gear is secured in the extended (or retracted) position.
Add	6.12	Floats and Hulls
	6.12.1	Main Float Buoyancy – Each main float must have –
	6.12.1.1	A buoyancy of 1.8 times the portion of the 80% in excess of the maximum weight which that float is expected to carry in supporting the maximum weight of the seaplane or amphibian in fresh water; and
	6.12.1.2	Enough watertight compartments to provide reasonable assurance that the seaplane or amphibian will stay afloat if any two compartments of the main floats are flooded.
	6.12.2	Each main float must contain at least four watertight compartments approximately equal in volume.
	6.12.3	Auxiliary Floats – Auxiliary floats must be arranged so that when completely submerged in fresh water, they provide a righting moment of at least 1.5 times the upsetting moment caused by the seaplane or amphibian being tilted.
Modify	7.1	Installation
	7.1.1	The powerplant installation shall be easily accessible for inspection and maintenance.
	7.1.2	The powerplant attachment to the airframe is part of the structure and shall withstand the applicable load factors.
	7.1.3	Propeller-Engine-Airframe Interactions—In the absence of a more rigorous approach, powerplant installations must be shown to have satisfactory endurance in accordance with the requirements of 7.1.3.1 through 7.1.3.3 without failure, malfunction, excessive wear, or other anomalies.
	7.1.3.1	Complete 100 hours of flight operations for any approved propeller, engine, and engine mount combination. The testing must be completed on a single set of hardware, inclusive of engine, propeller, and engine mount.
	7.1.3.2	A modification to an existing installation that complies with 7.1.3.1 involving only a propeller or engine mount change shall complete 25 hours of flight operations. For the purposes of this requirement, propeller pitch changes to an otherwise approved installation are not considered to be a propeller change.
	7.1.3.3	Flight operations such as performance, controllability, manoeuvrebility, and structural flight testing may be counted toward the requirements of this section.
		NOTE 7: Compliance with 7.1.3 is considered an acceptable demonstration that the engine, propeller, airframe interaction does not exhibit vibration or other operational anomalies.

	7.1.4	The powerplant, including all systems required for the operation of the engine and including installed accessories, must be installed to ensure safe operation within the aircraft operating envelope.
	7.1.5	Systems required for the operation of the engine must be identified and verified to provide adequate capacities (such as fuel flow, lubrication, cooling) within the aircraft operating envelope.
	7.1.6	Areas of the engine compartment where flammable fluids or moisture could accumulate in normal ground and flight attitudes must be drained.
Modify	7.2	to be read: … approved under 14 CFR Part 33, CS-E, or CS-22 Subpart H standards
Add	7.4.3	Oil lines located in an area subject to high heat (engine compartment) must be fire resistant or protected with a fire-resistant covering.
Modify	7.6.1 to correct thickness to be read: Stainless steel, not less than 0.38 mm (0.016 in.) thick,	
Add	7.7	Cooling
	7.7.1	Liquid Cooling – When equipped with a liquid cooling system:
	7.7.1.1	Components of the liquid cooling system must be selected and installed as to withstand all operating conditions that must be expected.
	7.7.1.2	Coolant tanks shall be designed to withstand a positive pressure of 24.5 kPa (3.55 psi) (2.5-m (8.2-ft) water column) plus the maximum working pressure of the system.
Add	7.8	Exhaust– Each exhaust system must ensure safe disposal of exhaust gases without fire hazard or carbon monoxide contamination in the personnel compartment.
Add	7.9	Propeller:
	7.9.1	Installed propellers shall conform to Subpart J or shall be type certificated or otherwise approved under 14 CFR Part 35, CS-P, or CS-22 Subpart J standards.
	7.9.2	Sufficient clearance must be provided between propeller and ground or water, as well as between propeller (including all other rotating parts of the propeller and spinner) and structural components. Effects of aircraft weight, center of gravity, propeller pitch positions, flight accelerations, vibrations and aging of shock mounts must be considered.
Add	8.5	Instruments and other equipment may not in themselves, or by their effect upon the aircraft, constitute a hazard to safe operation. Therefore:
	8.5.1	Each item of required ATC equipment must be approved.
	8.5.2	Each item of installed equipment must:
	8.5.2.1	be installed according to limitations specified for that equipment
	8.5.2.2	be installed in a way that it is unlikely to adversely affect the proper functioning of any other system or equipment of the aircraft
	8.5.2.3	be installed in a way to function properly
	8.5.2.4	be labeled or designed to be clearly identifiable
	8.5.2.5	be described and labeled appropriate regarding limitations and operation.
Add	9.1.3	Required Placards Operational Conditions—A placard stating 'This aeroplane is classified as a Light Sport Aeroplane approved for day VFR day operation only, in non-icing conditions. All aerobatic manoeuvres are prohibited. See Flight Manual for other limitations'.
	9.1.3.1.	No intentional Spins", if applicable.
Modify	10.1	Item to be read: Each airplane shall include a Pilot's Operating Handbook (POH) that conforms to Subpart G1.

Delete	10.2 – 10.11 incl. sub-chapters
Modify	Annex A1 A1.2.2 The aircraft must be capable of achieving a rate of climb while towing of at least 1,5 m/s, while not exceeding the maximum placarded towing speed of the towing aircraft, or the maximum safe towing speed of the aircraft being towed.
Modify	Annex A1 A1.6.1.6 The rated ultimate strength of the weak links to be used in the towing cable shall be established and shown to be suitable in operation. For the determination of loads to be applied for the purpose of this section, the strength of the weak link shall not be less than 300 daN.
Modify	Annex A2 A2.1 Applicability A2.1.1 CS-LSA is not yet acceptable as certification basis for LSA to be flown at night. Annex A2 A2.7.2 to A2.9.8 is applicable for the installation of lights.
Delete	Annex A 2 Chapters A2.2 – A2.7.1.5 and Chapters A.2.8 - A.2.11.2

Subpart G1 - Operating Limitations and Information

(a) General - Each airplane shall include a Flight Manual or Pilot's Operating Handbook (POH) that conforms to F2746-09 (6) as modified below or GAMA Specification No. 1

(b) Approved Manual Material

(1) Each part of the flight containing information required by the following chapters or paragraphs of a Pilot's operating Handbook according F2746-09 (6)

- Chapter No. 2 Limitations;
- Chapter No. 3 Emergency Procedures;
- Chapter No. 5 Performance;
- 6.10.1 Weight and Balance Chart;
- 6.10.2 Operating Weights and loading;
- 6.10.3 Center of Gravity (CG) range and determination;
- 6.12.5.1 Approved fuel grade and specifications;
- 6.12.5.2 Approved oil grades and specifications;

must be approved, identified and clearly distinguished from each other part of the Flight Manual

(2) Non approved information must be presented in a manner acceptable to the Agency.

(c) Standard Specification for Pilot's Operating Handbook (POH):

ASTM F2746-09 applies including all Annexes and Appendices, except as modified

Delete	1.3
Delete	1.4
Delete	6.13.3
Delete	7
Modify	In section 6.6.4, remove everything following (V_A) to read: Maneuvering speed (V_A) ~~at gross weight and minimum weight~~

Subpart G2 - Maintenance Limitation and Information

General

(a) A maintenance manual containing the information that the applicant considers essential for proper maintenance must be provided

(b) The part of the manual containing service life limitations, (replacement or overhaul) of parts, components and accessories subject to such limitations must be approved, identified and clearly distinguished from each other part of the Flight Manual

(c) ASTM F2483-05 applies including all Annexes and Appendices, except as modified

Delete	1.2
Delete	3.1.2
Delete	3.1.6
Delete	3.1.7
Delete	3.1.14
Delete	3.1.15
Delete	3.1.16
Delete	3.1.2
Delete	4
Modify	5.3 When listing the level of certification needed to perform a task, the manufacturer shall use one of the following descriptors. Pilot/Owner—Items that can be expected to be completed by a responsible owner who holds a pilot certificate but who has not received any specific authorized training. NOTE–refer to Part M for regulations regarding pilot/owner maintenance. Approved Maintenance Person—Items that can be expected to be completed by a maintenance person approved following applicable regulations of Part M and Part 66 for ELA 1 aircraft maintenance. Approved Inspection Person— Items that must be inspected by a maintenance person approved following applicable regulations of Part M and Part 66 for ELA 1 aircraft maintenance. Task Specific Training—Items that can be expected to be completed by one of the options above, but requires task specific training by the aircraft manufacturer or by an organization approved by the aircraft manufacturer to provide this training. When specifying the "task specific" level of certification, the manufacturer must also specify the specific training required.
Modify	6.1 Authorization to Perform—Part M and Part 66 must be consulted for minimum authorization to perform line maintenance, repairs and alterations of LSA aircraft.
Modify	7.1 Authorization to Perform— Part M and Part 66 must be consulted for minimum authorization to perform heavy maintenance, repairs and alterations of LSA aircraft.
Modify	10.1 A manufacturer of a product may require type-specific training in order to accomplish a task in either the maintenance manual or in an authorization for a major repair, maintenance, or alteration. The FAA does not give approval to these task-specific training programs for SLSA. A manufacturer may specify any task-specific training it determines is appropriate to accomplish a task.
Delete	Note 1
Delete	Note 4

Delete	Note 5
Delete	Note 6
Delete	Note 7
Delete	Note 8
Delete	Note 9
Delete	Note 10
Delete	12
Delete	Note 1
Delete	Contents regarding E-LSA needs to be removed
Modify	Throughout complete section 11 the terms “Safety Directives” and “Service Directives” are changed against “Notices of Corrective Action”. This is in line with the referenced standard F2295.

Subpart H - Engine

Applicable Specifications:

Installed engines shall conform to ASTM F2339, ASTM F2538, 14 CFR Part 33, CS-E or CS-22 Subpart H standards.

When selected, ASTM F2339 applies, including all Annexes and Appendices, except as modified:

delete	1.2
delete	2
delete	8

Subpart J - Propeller

Applicable Specifications:

Installed propellers shall conform to ASTM F2506, ~~7 14 CFR~~ Part 35, CS-P, or CS-22 Subpart J standards.

When selected, ASTM F2506 applies, including all Annexes and Appendices, except as modified:

delete	1.4	
delete	2 incl. sub chapters	
delete	10	
Modify	The reference within section 6.5 to section 5 is incorrect; must reference to Section 6.1 – 6.4 and to the addition as by (e) below.	
Add	5.5	Pitch Control
	5.5.1	Failure of the propeller pitch control may not cause hazardous overspeeding under intended operation conditions.
	5.5.2	If the propeller can be feathered the control system must be designed to minimize (1) consequential hazards, such as a propeller runaway resulting from malfunction or failure of the control system (2) the possibility of an unintentional operation.
Add	6.5	Function Test
	6.5.1	Each variable pitch propeller must be subjected to all applicable functional tests of this paragraph. The same propeller used in the endurance test must be used in the functional test and must be driven by an engine on a test stand or on a powered sailplane
	6.5.2	Manually controllable propellers–500 complete cycles of control throughout the pitch and rotational speed ranges, excluding the feathering range.
	6.5.3	Automatically controllable propellers–1500 complete cycles of control throughout the pitch and rotational speed ranges, excluding the feathering range.

Subpart K Airframe Emergency Parachute

Applicable Specifications:

Installed Airframe Emergency Parachutes and installations of such systems shall conform to ASTM F2316-08. ASTM F2316-08 applies, including all Annexes and Appendices, except as modified:

delete	1.3
delete	2 incl. sub chapters
delete	X1.1.1 including Note X1.1
delete	X1.2.1
delete	X1.3.1
Modify	Fig X1.1 shows the placard explained under 11.3.3.3
Modify	Fig X1.2 shows the placard explained under 11.3.3.3
Modify	Fig X1.3 shows the placard explained under 11.3.3.3
Modify	The reference within section 6.5 to section 5 is incorrect; must reference to Section 6.1 – 6.4 and to the addition as by (e) below.

EASA Certification Specifications for Light Sport Aeroplanes

CS-LSA Book 2

Acceptable Means of Compliance

AMC Subpart B 6.2

Parts of Structure Critical to Safety

(a) The use of the following stress levels may be taken as sufficient evidence, in conjunction with good design practices to eliminate stress concentrations, that structural items have adequate safe lives:

Material used	Allowable normal stress level of maximum limit load
– Glass rovings in epoxy resin	25 daN/mm^2
– Carbon fibre rovings in epoxy resin	40 daN/mm^2
– Wood	According to ANC-18*
– Aluminium Alloy	Half of rupture tensile strength
– Steel Alloy	Half of rupture tensile strength

(b) Higher stress levels need further fatigue investigation using one or a combination of the following methods:

(1) By a fatigue test, based on a realistic operating spectrum.

(2) By a fatigue calculation using strength values which have been proved to be sufficient by fatigue tests of specimens or components.

* ANC-18 is the ANC Bulletin "Design of wood aircraft structures"; issued June 1944 by the Army-Navy-Civil Committee on Aircraft Design Criteria (USA).

Material Strength Properties and Design Values (Interpretative Material)

Material specifications should be those contained in documents accepted either specifically by the Agency or by having been prepared by an organisation or person which the Agency accepts has the necessary capabilities. In defining design properties these material specification values should be modified and/or extended as necessary by the constructor to take account of manufacturing practices (for example method of construction, forming, machining and subsequent heat treatment).

Appendix B - Attachments

Requirements for Qualified Entities.pdf
Attachment #1 to comment #540

Stellungnahme BAZL zu EASA NPA 07 2008.pdf
Attachment #2 to comment #342

PART 21.pdf
Attachment #3 to comment #143

FAA Light Sport Aircraft Structural Safety Record July FY08.pdf
Attachment #4 to comment #670