



**COMMENT RESPONSE DOCUMENT (CRD)  
TO NOTICE OF PROPOSED AMENDMENT (NPA) 2007-08**

**amending Commission Regulation (EC) No 2042/2003 of 20 November 2003 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks, and**

**amending Commission Regulation (EC) No 1702/2003 of 24 September 2003 on the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations, and**

**amending Annex I (AMC to Part-M) and Annex II (AMC to Part-145) of Decision No 2003/19/RM of the Executive Director of the Agency of 28 November 2003 on acceptable means of compliance and guidance material to Commission Regulation (EC) No 2042/2003 of 20 November 2003 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks.**

***'Revised Part-M requirements for aircraft not used in Commercial Air Transport'  
AND  
'Pilot owner maintenance'***

## Explanatory Note

### I. General

1. The purpose of the Notice of Proposed Amendment (NPA) 2007-08, dated 28 June 2007, was to envisage amending Commission Regulation (EC) No 2042/2003<sup>1</sup> of 20 November 2003 laying down implementing rules for the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks, Commission Regulation (EC) No 1702/2003<sup>2</sup> of 24 September 2003 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations and the Decision of the Executive Director of the Agency No 2003/19/RM of 28 November 2003 on acceptable means of compliance and guidance material to Commission Regulation (EC) No 2042/2003. The scope of this rulemaking activity is outlined in the Terms of Reference M.005 and M.017.

### II. Consultation

2. NPA 2007-08 was published on the web site (<http://www.easa.europa.eu>) on 28 June 2007.

By the closing date of 13 October 2007, the European Aviation Safety Agency ("the Agency") had received 661 comments from 149 National Aviation Authorities, professional organisations and private companies.

### III. Publication of the CRD

3. All comments received have been acknowledged and incorporated into this Comment Response Document (CRD) with the responses of the Agency.
4. 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

The resulting text highlights the changes as compared to the current rule.

5. At the end of this CRD there is an "Attachment 1" divided in four sections:

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<sup>1</sup> Commission Regulation (EC) No 2042/2003 of 20 November 2003 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks, *OJ L 315, 28.11.2003, p. 1*. Regulation as last amended by Regulation (EC) No 376/2007 (*OJ L 94, 4.4.2007, p. 18*).

<sup>2</sup> Commission Regulation (EC) No 1702/2003 of 24 September 2003 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations, *OJ L 243, 27.9.2003, p.6*. Regulation as last amended by Regulation (EC) No 375/2007 (*OJ L 94, 4.4.2007, p. 3*).

- **GENERAL ISSUES:** contains replies to general comments to the NPA, including the subsequent changes to the rules and AMC material.
  - **SPECIFIC ISSUES:** contains other changes introduced to the rules and AMC material as a result of more specific comments to the NPA.
  - **GUIDANCE FOR OWNERS OF PRIVATE AIRCRAFT OF 2730 KG MTOM AND BELOW (including balloons of any size):** contains guidance in relation to the most simplified procedures allowed by the rules. Please note that other options may exist.
  - **RESULTING TEXT (Consolidated version of CRD07/2005, NPA2007-08 and CRD2007-08).**
6. The Agency's Opinion 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.
7. Such reactions should be received by the Agency not later than **6 May 2008** and should be submitted using the Comment-Response Tool at <http://hub.easa.europa.eu/crt>.

## IV. CRD table of comments, responses and resulting text

## (General Comments)

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comment 9

comment by: *SAMA Swiss Aircraft Maintenance Association*

1. SAMA greatly welcomes the efforts of EASA to adapt and propose rules for non complex and not commercially operated aircraft, GA. The majority of our members are small organisations working exclusively or primarily in this sector, and application of the existing EASA rules on them is a heavy, unproportional burden with very questionable safety benefit.
2. A-NPA 14-2006: In fall 2006, EASA collected opinions on a 'concept for better regulation for General Aviation'. We are surprised now to see proposals mainly covering the same subject, but without reference to results of A-NPA 14-2006 or even a related CRD. Considering also some other NPAs and current tasks at EASA, it appears that the process of creating a proportional set of rules for GA is very fragmented and confusing. The concept of deriving 'light' from 'large' regulations might even be a start from the wrong end, as this visibly does not lead to concise, easily understandable and thus proportional rules, even if in their apparent meaning, the proposals aim at easing the conditions for complying with the rule. We suggest that EASA defines rulemaking for GA (continuing) airworthiness as one project instead of a sucession of changes and clarifications. This would also help the NAAs to solve the dilemma of "having to impose, for the sake of compliance" rules/conditions which are likely to be relaxed, changed or withdrawn shortly after.
3. Deadline 28.08.2008: Even without integrating upcoming conclusions of other NPAs and tasks, it is obvious that the rulemaking timescale will not allow final decisions in time for them to be complied with on September 28, 2008. This conclusion has been emphasized also at the Cologne workshop 4/5.7.2007. EASA has put priority on regulating airworthiness of large aircraft, for obvious reasons. There was no expression of a safety concern to delay the definition of rules for GA, as every member state has such rules in place. If, for reasons escaping our own considerations, the original 'end of opt-out date' can not be changed, its meaning should be changed to say: "it is the date at which the NAAs must present an implementation plan for GA airworthiness rules". The plan shall foresee a start of implementation not before EASA has finalized an agreed and proportional set of rules.
4. A rather minor editorial remark, which can have a considerable impact on the use of English language in member states: to my knowledge, aircraft in plural has no s.

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment 49

comment by: *NHAF Technical committee*

We see a lack of harmonization between the new B3 license and the weight limit at 2730 Kg. As we understand the B3 licence weight limit is intended to be at 2000 Kg. The intension of this NPA is to reduce costs for non commercial

GA and we therefore find it strange that B3 licences and this NPA isn't harmonized.

In general we do not agree that a pilot could do a self-assessment of his qualification to do maintenance work. Other maintenance personell is required to have an minimum of basic knowledge. As we understand the self-assesment is also againts ICAO regulations.

Economical effect can be opposite of the intention of this NPA due to following:

- Insurance rate would possible increase, NOT be reduced
- Second hand value could be reduced compared to MO maintaned aircraft
- Export of aircraft would be difficult due to lack of proper documentation of maintenance work

Safety issuses regarding pilot maintained aircraft:

- No quality control of maintenance
- No formal technical maintenance training required
- Reduced bogus part control
- May reduce availibility of maintenance organizations

response *Not accepted*

1) First part of the comment

Harmonizing the weight to 2000Kg would mean un unnecessary burden because many aircraft would not be eligible for the reduced requirements introduced in this amended Part-M (those between 2000 and 2730 Kg). The current text already includes 2730 Kg as the limit for pilot owner maintenance. In addition, there is not a significand difference on how to manage aircraft of 2000 Kg and aircraft of 2730 Kg.

Harmonizing the weight to 2730 Kg would mean to include in the B3 license aircraft which are significantly more complex in terms of maintenance (pressurization, more complex avionic systems, etc). This would mean to significantly increase the level of training, which is opposite to the objective of the task.

2) Second Part of the comment

PILOT OWNER MAINTENANCE

Refer to comment 51.

comment 50

comment by: FAA

The FAA has reviewed the subject NPA and has no comments.

response *Noted*

comment

51

comment by: *Aircraft Engineers International (AEI)*

General comment:

AEI is totally against this NPA in its present issue.

However in case that this NPA is developed into a regulation change according to this issue, then AEI has prepared a lot of detailed comments that are registered in relation to their respective text that they refer to, to try to restrict maintenance by pilot owners (PO). One of these restrictions must be that under no circumstances PO's are allowed to self assess their competence (as is presently proposed in this NPA, see also the reference to ICAO in the reason for this comment). They need to sit an exam to proof their knowledge and competence. In addition to, and before they sit this exam, they need to have technical instruction/a course to ensure that their knowledge is at a satisfactory level.

Reasons for general comment:

The NPA is allowing far too much maintenance that may be carried out by PO's. This has an adverse affect on safety. More over in case of a flying club for example, an accident (due to PO maint.) could not only kill the PO, but also others! Another negative effect is that export of aircraft maintained by PO's outside the EU will become a problem due to the maintenance not having been carried out by the proper maintenance organisation. Some of these organisations are already refusing to maintain PO maintained aircraft for the very same reason. Finally this NPA is clearly not following the ICAO recommendations (see § 59 on page 15) on examining personnel to check their knowledge and competence before they are allowed to sign for (in this case) maintenance tasks. All other regulation is strictly following ICAO recommendations, so should this proposal.

response

*Not accepted*

The list (Appendix VIII of Part M) has been compiled to exclude safety critical items and no current evidence exists to support that self assessment would produce accidents caused by Pilot-Owner Maintenance. Assessment of a pilot-owner's competence by a maintenance organisation or a licensed person or NAA was considered to be unjustified when compared against the perceived safety benefit

In addition, as described in M.A.201 (a) & (c), the owner remains responsible for the maintenance tasks performed.

Refer also to paragraph 64 of the NPA explanatory note where additional elements to the assessment of the pilot's capability are given.

The Term of reference of M-005 was not to challenge the existence of the pilot owner maintenance in accordance with Part M Appendix VIII but to improve it.

Additionally, the concept of pilot-owner maintenance is not new: sufficient experience in various European and American countries demonstrates that no significant reduction of safety level exists.

Paragraph 57 of the NPA explanatory note gives additional elements: records of accidents and accidents were scrutinized and no statistics show critical information on cases where maintenance was badly performed by any pilot-owners involved.

comment	<p>52 <span style="float: right;">comment by: <i>Aircraft Engineers International (AEI)</i></span></p> <p>General comment:</p> <p>UAV's are not covered in this NPA. Some UAV's have a considerable weight and complexity, and pose therefore a potential danger in case of a crash and collision. Therefore UAV's should be regulated.</p> <p>Question:</p> <p>How and where in the regulation are UAV's planned to be covered in relation to maintenance and operation?</p>
response	<p><i>Noted</i></p> <p>UAV are covered by an Agency rulemaking process and an advanced NPA 16/2005 was published which describes the process of certification.</p> <p>The A/NPA can be found at the following Agency's address:  <a href="http://www.easa.eu.int/home/rm_arc_en.html">http://www.easa.eu.int/home/rm_arc_en.html</a></p>

comment	<p>121 <span style="float: right;">comment by: <i>Axel Mitzscherlich</i></span></p> <p>General comment on NPA 2007-08:</p> <p>Reject Part M for A/C not involved in commercial air transport and transfer all existing tasks related to certification, registration and maintenance to the NAAs again, in Germany transfer these tasks to the DAeC e.V.:</p> <p>Main reasons:</p> <ol style="list-style-type: none"> <li>1) German maintenance regulations instructed a safe and stable A/C operation over the past</li> <li>2) Germans national air sports association DAeC e.V. has been assigned from the german NAA to perform all tasks related to UL-certification and registration and all related tasks regulating maintenance including AD-administration</li> <li>3) Quoting NPA 2007-08 "the accident and incident data currently available does not show any relationship between pilot owner maintenance and the number of accidents or incidents."</li> <li>4) Germans DAeC e.V. has developed an all-inclusive body of regulations about maintenance training regarding all air sport activities which all sub-member organisations comply with.</li> <li>5) Changing a "running system" of working with unsalaried, volunteering members through all sections of air sports to a complete new system including raising effort and prices might let increase illegal "working in the dark", which would be an unwanted side effect.</li> <li>6) Adapting existing procedures and manuals to part M does already tie up very much effort not even thinking about introducing the new contract to all of our members.</li> </ol> <p>Therefore I would, as technical representative of the german "Luftsport Verband Bayern e.V.", member of the DAeC e.V., with our own maintenance organisation LBA II-B17, including of about 118 sub-member-club shops, with over 800 of DAeC-certified maintenance staff (300 shop-leaders with ratings on wood, mixed and plastics, 290 A/C mechanics, 200 parachute packers, 20</p>
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welders), like to appeal to EASA / European commission not to convert our national running system for A/C not involved in commercial air transport into Part M.

Best regards

Axel Mitzscherlich

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response *Not accepted*

General answer

It is part of EC Regulation 2042/2003 that Part-M applies to non-commercial air transport aircraft at the end of the opt-out period specified in Article 7.

Germans national air sports association DAeC e.V. may be nominated by the competent authority as a qualified entity for a certain category of aircraft.

Part-M does not prevent staff in subpart-F and subpart-G organisations working on a voluntary basis.

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES.

Particular answer to part n°3

This is why the concept of "Pilot owner maintenance" is kept.

comment 135

comment by: DGAC France

One question which is not properly adressed by this NPA is the question of requirements applicable to restricted certificates of airworthiness.

Indeed it is essential that Part M is adapted before 28 September 2008 to the specificity of such restricted C of A if we want to avoid a number of exemptions.

We understand that this problem should be adressed by rulemaking task 21.023(b). However, considering the time necessary to go from an Agency's Opinion to the publication of an amendment to a Commission's regulation, it is not acceptable that this rulemaking task 21.023(b) initially scheduled (as proposed to AGNA in its June meeting) with an NPA 2nd quarter 2007 and an Agency's opinion 1st quarter 2008 has been rescheduled in the 2008 rulemaking programme published by the Agency, with an opinion at the



	earliest during the 3rd quarter 2008.
response	<p><i>Not accepted</i></p> <p>It is not the intention of the Agency to interfere with an undergoing rulemaking task (21.023) and this subject is out of the scope of M.017.</p> <p>Nevertheless, the text proposed in this CRD 2007-08 contains flexibility provisions that will render many requirements of Part-M not mandatory until 28 September 2009.</p> <p>In addition, there are envisaged changes coming also as a result of the work of MDM.032.</p>
comment	<p>138 <span style="float: right;">comment by: <i>DGAC France</i></span></p> <p>It has to be acknowledged that apart from its content this NPA together with CRD 2007/05 are causing concern because of their late arrival and the short transition period between the publication of the amended regulation and the application date of 28 September 2008.</p> <p>When Regulation (EC) n°2042/2003 was adopted the requirement of article 7.6 of an impact assessment of Part M and an opinion to the Commission on possible amendment before 28 March 2005, was introduced to keep a transition period of about three years.</p> <p>The Agency should be aware that the reduction of this transition period to only some months is not without creating confusion amongst authorities and interested parties.</p>
response	<p><i>Partially accepted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>
comment	<p>148 <span style="float: right;">comment by: <i>Dutch gliding association</i></span></p> <p><u>General</u></p> <p>Although some improvements are made to part M due to introduction of NPA 2007-08. It is the position of the Dutch Gliding Association that Part M is still too complex for gliders. Special maintenance requirements must be developed for European Light Aircraft.</p> <p>These new requirements must be based on issuing privileges to individuals (e.g. licensed engineers) instead of organisation (Part G/I + F).</p> <p>The implementation of Part M for non-commercial aircraft has to be postponed with at least 1 year, because it is not feasible for gliding associations and competent authorities to implement Part M in a couple of months.</p>
response	<p><i>Partially accepted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>

comment

167

comment by: *SITEMA – Sindicato dos Técnicos de Manutenção de Aeronaves*

**SITEMA is totally against this NPA in its present form.** However if this NPA stays as it is, we are prepared to fight for safety. PO's need to sit an exam to proof their knowledge and competence. In addition to, and before they sit this exam, they need to have technical instruction/course/training to ensure that their knowledge is at a satisfactory level, as Aircraft Engineers already do.

## JUSTIFICATION:

This NPA is allowing far too much maintenance to be carried out by PO's. This has an adverse affect on safety. In case an accident (due to PO maint.) occurs, the PO will not be killing only himself, but also others! Another negative effect is that exportation of aircraft maintained by PO's will be a problem due to the maintenance not having been carried out by the proper maintenance organisation. Some of these organisations are already refusing to maintain PO maintained aircraft for the very same reason, and we are sure no Insurance Company will sign a contract with a PO's aircraft that has not been maintained by competent, certified personnel. Finally this NPA is clearly not following the ICAO recommendations (see 59 on page 15) on examining personnel to check their knowledge and competence before they are allowed to sign for (in this case) maintenance tasks. Why should we deviate from ICAO recommendations?

response

*Noted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES.

Pilot owners tasks are based on the fact that only maintenance tasks not subject to safety may be carried out before they release the aircraft, in addition the risk is limited to their own aircraft, not to all aircraft that B1 and B2 licences holders have on their type ratings.

Refer also to comment n°51

comment

174

comment by: *Swiss Federal Office of Civil Aviation (FOCA)*

The Opt Out period (28.09.2008) included in Article 7 of Regulation (EC) 2042/2003 shall be extended for all Owners / Operators of Aircraft below 2730 Kg. This extension shall cover 24 months after entry into force of the amendment of Regulation (EC) 2042/2003 covered by NPA 8-2007.

For such purpose, Swiss FOCA proposes a respective amendment of the Opt Out provision included in Article 7 of Regulation (EC) 2042/2003.

## JUSTIFICATION:

Based on the Part M Workshop held in Cologne on 04.07.2007 and on the respective presentation of NPA 8-2007, it was noticed that a three month or even less implementation phase between approval of the NPA/amendment of Regulation (EG) 2042/2003 and the current Opt Out deadline for implementation of Part M for aircraft used in non-commercial activities (28 September 2007) will not be sufficient enough for a serious implementation of Part M in the non-commercial area.

Due to the fact that Part M is being revised but that the envisaged modifications (in particular the envisaged cancellation of the 12 months for the controlled environment, the extension of the privileges for Pilot/Owner Maintenance as well as the generic maintenance program) are not yet formally adopted by the Commission, the industry will hesitate to continue implementation of Part M as they cannot be sure which provisions will finally be applicable. Hence, a huge workload for all European NAAs as well as for the industry must be expected as soon as the envisaged amendments of Regulation (EC) 2042/2003 will enter into force. Such workload cannot be handled within a time frame of three month or less. If such extension of the Opt Out period is not granted, there is a severe risk that Part M is not properly implemented throughout Europe.

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment *190*

comment by: *Austrian Aero Club*

The Austrian Aero Club welcomes the possibility in the proposed amendment of Part M to maintain the possibility of Pilot Owner Maintenance for Aeroclubs on aircrafts (below 2730 kg) including aircrafts which are used for pilot training in schools (no commercial). Additionally we suggest to expand the Pilot Owner Maintenance in order to give the national authorities the possibility to act in favour of the aeronautical sport.

response *Not accepted*

First part

Pilot owner maintenance can not be performed in the case of "commercial operations" (which includes a "flying school"). Please see the changes to M.A.201(i), M.A.803(a) and AMC M.A.803.

Second part

The comment is not understood.

comment *194*

comment by: *Louis BERGER*

**Introduction** : The Royal Belgian Aero Club is the co-ordinating body of the national federations of 8 different air sports, 3 of which fall under community rules : aeroplanes, gliders, balloons. Each of these three federations will make their specific and technical comments through their respective European Unions and Europe Air Sports. Therefore the Royal Belgian Aero Club, in co-ordination with its federations will voluntarily stay general.

**1. About the calendar.** Presented during the very good Juan Aton briefing in Cologne last July, the calendar seems to be unrealistic to the Royal Belgian Aero Club : Even if after the consultation period (13 October 2007) EASA will be able to send its opinion to the Commission by March 2008 and hoping that the regulation will be approved by the Commission in June 2008, we do not see how it will be possible to be ready for implementation in all countries for

the 28 September 2008. This time scale, in our view, will create confusion.

**2. Preference for a separate "Light Part M".** The Sport and Recreational aviation we represent, always wanted to have a simple regulation on Light Part M, separated from a regulation applicable to transport aviation. It cost us a lot of money to be able sending experts through Europe Air Supports, to help EASA to understand this problematic. It seems that this has not been understood. We do not accept the argument by which owners/operators trying to move from non-commercial aviation to commercial air transport would need to learn two separate regulations. How many owners/operators would be in this case? This is seen as making from the exceptions the general rule!

**3. Language used and translation.** If it can be admitted that professional in aviation must have a good level in English, however this is not the case in non professional world and in particular in Sport and Recreational aviation (S&R aviation). Therefore a document of 144 pages written in a very difficult English, is discouraging the consulted stakeholders, the pilot owner making its own maintenance or the volunteers making the maintenance of the gliders of their club or clubs.

**4. Real benefit for safety ?** We do not think that the multiplicity of detailed, and separate, approvals required on all involved in maintaining and managing light aircraft under Part M will bring more benefit to safety, compared with the existing system that up to now have been proven as adequate. There is a very well known saying " too much regulation kills safety", this is in particular true in S & R aviation. It is statically proven that accidents in those three disciplines are practically never due to bad maintenance. It is not an increase in paper work that will help safety.

**5. Proposal :** The Royal Belgian Aero Club believes that EASA in light of the outcome of NPA 2007/08 should request the Commission to delay the application of Part M until such a time that MDM 032 working Group has completed its works, so that the S & R aviation world involved in "non complex non commercial" outside annex II of 1592, will have a joined and coherent regulatory approach of the entire issue: airworthiness, continuous airworthiness, pilot licensing and operations. Such a coherent regulation, short and simple should be completely separate from Commercial Air Transport regulation, because their environment and the goal are different. Was Working Group MDM 032 not created for this purpose ? This reason is however clearly explained in its ToR.

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment *199*

comment by: *Alan Baker*

Hello

I am a current pilot and instructor and aircraft owner (and erstwhile aircraft engineer) who is a supporter of constructive change which supports improvements in safety and simplification, with where possible a redction in costs.

My impression is that this documents is increasing complexity, certainly will cause and increase transient cost and ongoing costs, and in the short term and longer term reduce safety. It will also provide a whole new market for the litigators, such as we see in the USA.

I realise that the general well being of

response *Noted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment 200

comment by: *Rory OCONOR*

a) the steps to add a comment are so complex that most users wont bother. So EASA should be most cautious about the sign up to its policies.

b) EASA seems to be ignoring years of good practice and progress in the light aircraft industry - and is just creating a mass more bureaucracy which will be just another nail in the coffin of sports such as gliding.

c) we fly gliders and SLMG for fun. If you make it prohibitively expensive for us, then we wont be able to. We might also vote to do away with rubbish bureaucrats.

why not think of the users for a change. If your regulations result in a decrease in the number of leisure flyers, particularly gliders which happen to be environmentally-friendly, then will it have been a success - answer NO.

the work needs to change so that it does not impact adversely on sport gliding. That is your job not mine.

Rory

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment 223

comment by: *Bill Taylor*

General Comment: This NPA is grossly lacking in its response to the many criticisms of Part M as it will be applied to the non-commercial GA sector after September 2008.

**Note to EASA Staff: All these comments are having to be re-typed because the CRT 'timed out' during my initial session, resulting in the total loss of some two hours work. The CRT is not fit for purpose!!**

**TIMESCALE FOR IMPLEMENTATION**

Firstly, the NPA has come at such a late stage in the transition process that there is not enough time to properly develop the Implementing Rules and their AMC for this information to be passed to the NAAs and industry to allow proper planning and development of procedures and expositions to allow a safe and phased transition to the new arrangements. To precipitate such fundamental changes at such a late stage in the transition process is in itself a safety hazard. To have such uncertainty over requirements and the new procedures at this late stage in the process also creates a number of commercial issues, especially as the extra costs associated with the new regime are so high that many organisations will be unable to move to the new arrangement. From talking to existing maintenance organisations here in the UK it is clear that these uncertainties and the huge extra costs have made any decide not to make the transition to EASA regulation, with the likelihood of there being a serious shortage of approved maintenance capability from September 2008.

**Action Required.** It is essential that EASA postpone the introduction date of Part M until its final configuration has been agreed, has passed through the full consultation process and has been accepted and understood by the industry and the population of aircraft owners and operators.

**ONCE AGAIN THE CRT HAS TIMED OUT. DISREGARD THIS COMMENT NO 223 AND REFER TO COMMENT 224 WHICH WILL BE TYPED IN WORD AND IMPORTED INTO THE CRT RATHER THAM ME RUN THE RISK OF YET MORE WORK BEING LOST BY THIS CRAZY CRT.**

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

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hazard. To have such uncertainty over requirements and the new procedures at this late stage in the process also creates a number of commercial issues, especially as the extra costs associated with the new regime are so high that many organisations will be unable to move to the new arrangement. From talking to existing maintenance organisations here in the UK it is clear that these uncertainties and the huge extra costs have made any decide not to make the transition to EASA regulation, with the likelihood of there being a serious shortage of approved maintenance capability from September 2008.

**Action Required.** It is essential that EASA postpone the introduction date of Part M until its final configuration has been agreed, has passed through the full consultation process and has been accepted and understood by the industry and the population of aircraft owners and operators.

### **GROSS OVER-COMPLICATION**

Secondly, Part M as it stands, even following this NPA, remains grossly over-complex for the needs of non-commercial GA. Part M is a process with its roots in commercial air transport but it has been driven down onto sectors of aviation which show no evidence of a poor safety record relating to continuing airworthiness and which require such complex measures to resolve. The sector requested that EASA deliver a Part M 'Light' but this has not been done. One can perhaps understand why EASA might not want to develop a wholly new Rule, but would wish to incorporate a 'light touch' within the extant document. However, this has not been achieved by this NPA.

The changes proposed in this NPA have perhaps rounded off some of the rougher edges within Part M, but there has been no fundamental derogation for non-commercial GA from the full rigour of Part M. Even with the amelioration offered by this NPA, Part M remains over-complicated for the needs and safety record of non-commercial GA. There is no safety case for the imposition of this repressive regime and the RIA attached to the NPA utterly fails to elicit any form of safety hazard which Part M must address. More fundamentally, the RIA does not address the huge extra costs associated with implementation of the new regime, and the RIA itself is therefore fundamentally flawed. Many sectors of non-commercial GA have safely managed continuing airworthiness over many decades. EASA has failed to make any form of robust case for dismissing these arrangements and replacing them with Part M. Part M itself remains fundamentally flawed and it is not fit for purpose in the regulation of continuing airworthiness of non-commercial GA.

**Action Required.** EASA must withdraw the requirement to impose Part M onto non-commercial GA and establish from first principles a new regime which is fit for purpose. In such an approach from first principles, the true safety issues must be analysed and any proposed Implementing Rule must be proportionate to the risk. At present Part M fails on all these counts.

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment	<p>229 <span style="float: right;">comment by: <i>BCAA - DAE - Certification</i></span></p> <p>In this NPA, the terms "Continuing Airworthiness" and "Maintenance" have not always used correctly. This can mislead or induce confusion.</p>
response	<p><i>Accepted</i></p> <p>In some cases the term "maintenance management" was used when meaning "continuing airworthiness management". This has been corrected.</p>
comment	<p>235 <span style="float: right;">comment by: <i>British Gliding Association</i></span></p> <p>Background Information – Page 6, Para 12</p> <p>Comment Text</p> <p>In producing NPA 2007-08 EASA has clearly dismissed the widely held view in industry that there is a need to develop proportionate standardizing regulation under a Part M 'Light'. The BGA ( in common with many industry bodies) continues to contest the rationale behind a 'one size fits all' regulation. The reasons given in IV-12 of NPA2007/08 for a single Part M regulation are those for the convenience of the regulator, and not for the satisfactory and economic function of the lighter end of the GA sector / industry. These are minor, secondary issues compared to continuing effective and economic operation of all light and sport aircraft. While M017 and M005 have to some extent relieved the processes associated with compliance with Part M the basic distribution of roles tasks and responsibilities remains totally unsuitable for light GA.</p> <p>The BGA is fully aware of the current discussions in EASA Group MDM032. The BGA wholly supports that group's development of a range of more open regulations under the heading of the 'European Light Aircraft' (ELA), wherein, as a matter of principle, the owner remains responsible for the safe operation of his aircraft without the necessary stipulation of a hierarchy of professionally licensed organisations and prescribed detailed procedures. Given that such a policy is now under advanced consideration, the imposition in the interim of Part-M (amended to NPA2007/08) with its prescriptive approach would create great cost and hardship. This would be particularly severe to the BGA and its members because of its existing de-regulated status, which for many years has produced a safe and ecomic model of glider maintenance.</p> <p>In everyone's interest the implementation of this NPA should be delayed pending further consideration of better options to fit with the philosophy of the emerging ELA category. Should this current draft of Part-M be pursued, irrespective of the above comments, EASA should at least commission an in-depth objective RIA, taking fully into account the potential impact on the diverse light GA sector, to demonstrate clearly that it holds value compared to this new MDM032 (ELA) approach to the GA/light/sport aviation sector</p> <p>Reason Text</p> <p>In light/sport/GA aviation a lighter regulation has, over several decades, been demonstrated to be effective and specifically SAFE, as exemplified by the record of many national associations such as the BGA. The separate limbs of the regulation as set out in Part M (Sub</p>



Parts F, G and I) complicate and diversify these roles in a manner which is not appropriate, requiring owners (usually private individuals) to engage commercially with a multiplicity of regulatory bodies and organisations many of which are themselves overburdened with external assessment and quality overviews inappropriate to the level of their activity and irrelevant to safety.

The potential additional expense of these organisational structures, processes and measures are considerable and will be directly to the detriment of the development of this sector.

All other comments made by BGA against this NPA are direct examples of this overriding issue of principle.

response

*Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

251

comment by: *John DAVIES*

I think that this has been missed in previous NPA's. I don't think you really mean it to apply to balloons and airships?

AMC MA605 (a) It is not necessary to inspect balloons and airships in a hangar. In some cases inspection requires a hot inflation of the envelope which must be performed in a field (unless we are going to start building specialist hangars in excess of 60 m high, i.e. 3 times as high as a Boeing 747). I fear this could make balloon inspection just a bit expensive.

Proposed text

"Where a hangar is not owned by the M.A. Subpart F organisation, it may be necessary to establish proof of tenancy. In addition, **except in the case of balloons and airships,** sufficiency of hangar space to carry out planned maintenance should be demonstrated by the preparation of a projected aircraft hangar visit plan relative to the aircraft maintenance programme. The aircraft hangar visit plan should be updated on a regular basis."

response

*Partially accepted*

Refer to consolidated version at the end of the CRD.  
AMC M.A.605(a) has been amended.

comment

255

comment by: *René Meier*

The Aero-Club of Switzerland (AeCS) welcomes greatly the efforts of EASA to adapt the rules for non complex aircraft not used in Commercial Air Transport to the needs of the categories of aircraft at the lower end of the spectrum. The Swiss maintenance system for light aircraft is built on pilot owner maintenance (glider and balloon) and on a 2 years periodicity for the airworthiness review. The Swiss national authority, the Federal Office for Civil Aviation FOCA delegates the airworthiness review to experienced airworthiness review staff organisations. The system works efficiently without a lot of paperwork. No accidents happened in the past years due to non-correct aircraft maintenance

or due to mistakes made by the airworthiness review staff.

The EASA proposal contains several valuable ideas. However, compared with the actual Swiss system, the proposed EASA regulation is more complicated, creates more administration and more expenses, unfortunately without any gain in safety. With this in view, it is very difficult to convince our members of the necessity of the system change.

The NPA shows a tendency of overregulation with regards to the light aircraft operators community and with the national regulations in force. The one-year periodicity, for instance, can be extended to a two-year periodicity without any loss in safety.

response

*Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

Specific answer for the Pilot-Owner maintenance

Not accepted

a) Permitting a person who does not hold a valid pilot licence to perform maintenance task is clearly against the basic principles of pilot owner maintenance.

The concept is also based on the fact the pilot-owner may be the one who is going to fly the aircraft just after maintenance task have been carried out.

b) In this case, this experience may not be lost because the Agency is in the process of exploring in the near future the possibility to have a light maintenance licence for the lighter end of general aviation.

comment

266

comment by: SFVS

The Swiss Gliding Federation (SFVS) welcomes the effort of EASA to adapt a lighter regulation on Part M for light/sport aircraft.

In comparison with the actual Swiss system, the proposed EASA regulation is still complicated and creates costs and administration without any increase in safety.

First of all, the implementation by 28 September 2008 is not realistic. We propose to delay the application date of Part M to at least September 2010.

We strongly recommend extending the period of validity of an ARC to 2 years for aircraft below 1000 kg MTOM. We have made good experience in Switzerland by carrying out airworthiness review inspections every 24 month.

A high quality Maintenance Organisation will only work after the implementation of EASA Part M, if Grandfather's rights are fully approved.

Pilot owner maintenance is essential for gliding. Pilots losing their medical fitness should also have the possibility to carry out pilot owner maintenance.

CAMO's are too burdensome for the gliding federations of small and simple countries. Small and simple organisations (Subpart I), covered by the responsibility of the competent authority, should be allowed to ensure the validity of aircraft airworthiness review certificates for aircraft below 1000 kg MTOM.

response

*Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in

paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment 269

comment by: *DAeC LV NRW e.V.*

The "Deutscher Aero Club Landesverband Nordrhein Westfalen e.V.", Duisburg, (DAeC LV NRW e.V.) is a member of the national German Aeroclub (DAeC) and representing approximately 17.000 air sport aviators in North Rhine Westfalia, Germany. The DAeC LV NRW e. V. has got its CAMO approval on the 20. July 2007 according to the current Part M, Subpart G+I with its approval No. DE.MG.0501.

DAeC LV NRW e.V. has established an appropriate organisational structure and an IT based CAMO tool (CAMOplus<sup>®</sup> and CAMOdata<sup>®</sup>) to meet the current valid Part M rules. With this internet-based system the CAMO is able to manage the airworthiness of a great number of gliders, motorgliders, balloons and airplanes up to 2000 kg with a minimum of manpower. In this stage the CAMO is able to manage the airworthiness of more than 1100 gliders, motorgliders, balloons and airplanes in its controlled environment with this system.

response *Noted*

comment 282

comment by: *Stuart BUCHANAN*

I currently own and fly an aircraft in the U.K., exempt from Part-M under Annex II. The aircraft is a flexwing microlight, with a MTOM of 370kg.

I currently do all my own maintenance as a microlight owner, from changing a spark plug, to overhauling the engine. There is no requirement to have a certified engineer or maintenance organisation perform any maintenance. Major structural work is signed off by another person, and a yearly permit renewal is completed by a British Microlight Aircraft Association Inspector. The current approach is simple, cheap, and appropriate for microlight aircraft.

The proposed changes will reduce the amount of maintenance I can perform to a trivial level, while increasing the level of bureaucracy involved. The cost maintaining my aircraft will increase enormously due to the requirement of having a maintenance organization perform tasks that I currently undertake myself.

My current ownership costs are under 2,000 euros annually, including maintenance, hangarage, insurance and permit. This is proportionate to the value of my aircraft - around 8,000 euros. The proposal will increase my costs significantly, and out of all proportion to the value of my aircraft.

I may not be able to afford such an increase in costs, and may have to give up microlighting as a direct result.

Studies in France, Canada and the UK have found that the number of airworthiness-related accidents is no higher in aircraft that may be pilot-maintained, compared with those that cannot. Therefore the proposal will not

have any safety benefit whatsoever. In fact, it may have a detrimental affect on safety. Some pilots may choose to forgo maintenance in an attempt to save money, where before they were able to perform the maintenance themselves.

Annex II was created to deal with aircraft where Part M was inappropriate and overly bureacratic. The new proposal appears to do nothing to address this issue with regards to microlights, imposing a significant new burden that is out of all proportion to the complexity of the aircraft, and the difficulty of maintaining airworthiness. The exemption of microlights and other very light aircraft from Part M should therefore be made permanent. The alternative is that a large number of microlight pilots will be forced to give up their sport due to the increase in costs, both monetary and bureacratic.

Your sincerely,

Stuart Buchanan

Owner and pilot: G-MWLX

response *Noted*

Microlight aircraft are Annexe II aircraft, therefore they are not under the remit of the Agency and Part-M does not apply to all these aircraft within the category.

comment 295

comment by: ICAA

General comments to NPA 2007-08:

- Transition period may be required if there are not sufficient approved CAMO's especially with the appropriate ratings prior to 28 September 2008.
- This also applies if there are not sufficient Subpart F maintenance organisations.
- Components in stock with national serviceable tags (green tags) that are nationally acceptable i.e. the component is airworthy, should be given grandfather right for EASA Form One. Otherwise the component owners may suffer economically providing they will find an appropriate Subpart F or Part-145 organisation with the proper component rating, in order to get the particular component certified.

During the JAA era, JAR-145 allowed national serviceable tags to be attached with a JAA Form One by a JAR-145 maintenance organisation, even though this organisation did not possess the appropriate component rating. Even a transition period was given and that period was also extended a few times.

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment	301	comment by: <i>Richard TOSSWILL</i>
	<p>The proposals seem to be out of all proportion to the risks incurred by aircraft at the lower end of the MTOM range such as microlights. A genuinely relaxed regime in which pilots carry out their own maintenance would be far more appropriate. What is suggested at present would see the death of a burgeoning industry in verl light aircraft.</p>	
response	<p><i>Noted</i></p> <p>Microlight aircraft are Annexe II aircraft, therefore they are not under the remit of the Agency and Part-M does not apply to all these aircraft within the category.</p>	
comment	306	comment by: <i>Tony Lintott</i>
	<p>As a private glider pilot using just one glider solely for personal use and enjoyment this document will inevitably lead me to early retirement from my chosen hobby, unless modified in a very major way.</p> <ul style="list-style-type: none"> <li>• What real benefit derives from this protocol to the private flyer?</li> <li>• Will EASA re-look at their proposals with flyers like me in mind?</li> <li>• Is EASA seeking to stop private sole aircraft users from taking to the air?</li> </ul> <p><u>Tony Lintott - United Kingdom - Glider Pilot</u></p>	
response	<p><i>Partially accepted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>	
comment	308	comment by: <i>peter GRAY</i>
	<p>I am a UK glider pilot and my sporting body is the British Gliding Association.</p> <p>In that I believe (as do the majority of your respondents, it would appear) that the heirarchical structure of separate, professional (therefore expensive) agencies described in this document are inappropriate to GA/Sporting aviation I do not propose to suggest detailed amendments to specific sections. Particularly since working group MDM032 is yet to produce recommendations for the separate regulation of a category of European light aircraft.</p> <p>I have however made a few comments but in general this document is abstruse and difficult to understand.</p> <p>I urge the director to listen carefully to the governing bodies for sporting and light aviation throughout Europe for they speak on behalf of the pilots such as myself.</p>	
response	<p><i>Partially accepted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>	
comment	316	comment by: <i>Tom DAWSON</i>

It seems inappropriate to me that there is no lesser standard for aircraft of low mass. There is no evidence of a worse record of airworthiness for light aircraft which are constructed and maintained solely by owners than for those aircraft which are heavily controlled. It will damage the sport of aviation to impose a heavy and apparently unnecessary maintenance regime. To separate out as class of light aircraft of say 1000Kg or even 750Kg would seem a reasonable approach.

At least the decision to include light aircraft in Part-M should be postponed until the results of the MDM.032 working group can be considered. At that time a set of appropriate rules for that minimal class of aircraft outside Annex II should then be considered.

I do not support the removal of sub 450kg aircraft from Annex 2 .

response

*Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

324

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

We think that the proposed Part M is not possible to be used in sport and recreational aviation It is far too complicated and creates unnecessary complications for users in non-commercial operations. Therefore LAA CR proposes not to use the Part M for proposed ELA 1 process. Instead of this we propose to use for this process the maintenance system based on approved Maintenance Manual with regular inspection checks. LAA CR is using this system in the Czech Republic 15years and we have good experience with it. LAA CR is ready to to participate on creation of such system for ELA 1 process.

response

*Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

327

comment by: *Teveso*

We think that the proposed Part M is not possible to be used in sport and recreational aviation It is far too complicated and creates unnecessary complications for users in non-commercial operations. Therefore LAA CR proposes not to use the Part M for proposed ELA 1 process. Instead of this we propose to use for this process the maintenance system based on approved Maintenance manual with regular inspection checks. LAA CR is using this system in the Czech Republic 15years and we have good experience with it. LAA CR is ready to participate on creation of such system for ELA 1 process.

response

*Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

333

comment by: *J Kilpatrick*

General

Comment

Continuing airworthiness activities for certain aircraft included in Annex II may be undertaken by the pilot/owner. Indeed, in the case of homebuilt aircraft the entire construction from raw material may be undertaken by the pilot/owner.

Where comprehensive accident statistics on such aircraft are available, for the UK, it is clear that the level of airworthiness-related accident for such aircraft is very low and not significantly higher than for aircraft for which the maintenance that may be carried out by the pilot/owner is far more limited.

non-complex aircraft could operate under a similarly relaxed regulatory regime up to 750 kg. It was anticipated that the output of the MDM.032 Working Group would provide the input to deliberations relating to continuing airworthiness regulations in this respect.

Instead, the amendments to Part-M for aircraft not used in Commercial Air Transport imply no such change and the proposed implementation date for Part-M of 28 September 2008 allows neither the deliberations of MDM.032 nor the input from the associated consultation process to be taken into account in the proposed regime for continuing airworthiness.

Implementation of Part M for sub-1000 kg aircraft should be delayed until the final results of the MDM.032 Working Group have been delivered then a set of appropriately light rules should be drafted for those sub-1000 kg that fall outside Annex II.

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment 335

comment by: *Michal Seifert*

Myslím si, že tak jak je v současné podobě navrhován Part M je pro sportovní a rekreační létání naprosto nepoužitelný, toto létání staví do podobné pozice jako je v současné době komerční létání "větších" letadel. Proč nepoužít model údržby a oprav, který již například LAA CR provozuje více jak 15 let, kdy údržbu může provádět provozovatel podle schválené příručky a kontrola celého stroje je prováděna pravidelnými Inspekčními prohlídkami pověřeným technikem LAA CR. Myslím si, že více jak 15 let fungování systému prohlídek a údržby na více jak 2500 letadlech je zárukou, že LAA CR by se měla podílet na vytváření pravidel pro Evropu. Bylo by možné tyto důležité návrhy překládat do národních jazyků zemí, kterých se tato problematika týká, z důvodu možného mylného překladu "na koleně".

S pozdravem,  
Michal Seifert

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment	<p>337 <span style="float: right;">comment by: <i>CAA Finland, Communications</i></span></p> <p>The approval of this NPA will most probably be finished very late before the Opt Out date; September 2008. The uncertainty linked to the result of this consultation period will probably lead to the situation that there are not sufficient approved CAMO's especially with the appropriate ratings prior to 28 September 2008. Therefore a decision is necessary as soon as possible about the new transition period.</p>
response	<p><i>Accepted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>
comment	<p>339 <span style="float: right;">comment by: <i>Alex Cosser</i></span></p> <p>I'm afraid this document is too complex for me to understand. I am led to believe it may be proposing that owner maintenance of aircraft currently under BMAA regulation would no longer be permitted. My feedback is that this would have a devastating impact on one of the last bastions of low cost private aviation. I would like you consider permitting this to continue for aircraft under 600kg.</p>
response	<p><i>Noted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>
comment	<p>340 <span style="float: right;">comment by: <i>Nayak Aircraft Services</i></span></p> <p>In the complete documentation there is a mix in wording between owner and operator.</p> <p>It must clear define who is responsible for what. Otherwise we will get juristic problems later on.</p>
response	<p><i>Noted</i></p> <p>There is no evidence that there are confusions, an owner may be an individual or an organisation. Individual owner(s) may personally or collectively own an aircraft.</p> <p>Regarding the operator, according to a proposal of Basic regulation amendment by the Commission (COM 579) an operator means "any legal or natural person, operating or proposing to operate one or more aircraft". According to JAR-OPS and depending on national regulations, an operator in commercial air transport is required to hold an AOC, an operator not operating aircraft in commercial air transport but in commercial activities as aerial works, photography activities, flying schools... may be required by the state of operation to hold a certificate.</p> <p>and responsibilities of each of them are clearly defined by the paragraphs of</p>



M.A.201. This NPA introduces amendments to this paragraph.

comment 342 comment by: *Swedish Civil Aviation Authority (Luftfartsstyrelsen)*

- A transition period may be required if the NPA has not been officially published by the European Commission early enough prior to 28 September 2008 or if there are not sufficient approved CAMO's especially with the appropriate ratings prior to this date.

- This also applies if there are not sufficient Subpart F maintenance organisations.

**IMPORTANT:**

- Components in stock with national serviceable tags (green tags) that are nationally acceptable i.e. the component is airworthy, should be given the right to an EASA Form One. Otherwise the component owners may suffer economically providing they will find an appropriate Subpart F or Part-145 organisation with the proper component rating, in order to get the particular component certified.

During the JAA era, JAR-145 allowed national serviceable tags to be attached with a JAA Form One by a JAR-145 maintenance organisation, even though this organisation did not possess the appropriate component rating. Even a transition period was given and that period was also extended a few times.

Now a "stand alone" Part-66 AML engineer may have several components in stock that require compliance with the opt-outed rules. It must be possible also for such a Part-66 engineer to convert a national serviceable tag to an EASA Form One without sending the component to an appropriately approved Subpart F or Part-145 organisation. If a component is airworthy by a national serviceable tag there are no concerns whatsoever in view of aircraft safety.

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and TECHNICAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment 343 comment by: *Martin Marecek*

I think that the proposed Part M is not a proper set of rules to be used for sport and recreational aviation. It will possess an unnecessary burden for parties enrolled in non-commercial operations. I propose not to use the Part M for proposed ELA 1 process. Instead of this may I propose to use for this process the maintenance system based on approved Maintenance manual with regular inspection checks. This system works for years in some segments of aviation.

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

353

comment by: FFVV

General

On behalf of FFVV French Gliding Union

Il est difficile d'exprimer une position politique sans utiliser sa langue maternelle, aussi le commentaire général de la FFVV est exposé en Français.

De façon générale, la FFVV apprécie les améliorations apportées avec les NPA proposées, et remercie les membres du MDM032, en particulier du groupe M017, pour leurs efforts.

Il est cependant regrettable que la structure rigide de la part M ne permette pas, **actuellement**, de prendre en compte les propositions du MDM032 au niveau de la certification.

En effet les concepts d'ELA, en particulier la catégorie d'aéronefs de moins de 1000kg, apparaissent comme le résultat d'une réflexion qui associe le bon sens et la connaissance de la réalité, et devraient avoir des conséquences sur la structure de la part M et sur une partie de son contenu.

Il serait souhaitable que la part M, comprenne un chapitre exposant les principes généraux et des Chapitres spécifiques aux différentes catégories d'aéronef et en particulier les planeurs.

La classe ELA1 (>1000 kg) couvre la totalité (99%)

des aéronefs certifiés en CS22. Un chapitre "Maintenance" pour cette catégorie devrait être rédigé. Comme cela a été fait pour la maintenance par le pilote propriétaire dans l'Annexe VIII- dans cette annexe l'identification de la catégorie "planeurs et motoplaneurs " permet un accès et une compréhension facile, ce qui ne serait pas le cas si ce qui concerne les planeurs était noyé dans l'ensemble des tâches autorisés aux pilotes propriétaires, quelque soit l'aéronef.

Au lieu de cela il faut chercher dans la part M ce qui concerne l'aviation générale par rapport à l'aviation commerciale, et chercher également ce qui concerne les aéronefs complexes par rapport au nom complexe, oublier toute référence à la part 66...( la licence 66 ne concernant pas les planeurs).

Comme (en général) les personnels de l'autorité compétente en charge des CEN et des agréments FGI, connaissent mal le "planeur" et (encore plus mal le vol à voile), et passent la majeure partie de leur temps pour le suivi de l'aviation commerciale et la surveillance des ateliers professionnels, il est à craindre que leur connaissance du règlement basée en priorité sur ces domaines, entraîne des exigences excessives par rapport à l'enjeu que représente le "planeur" dans le monde de l'aviation.

Ce qui amenera probablement l'autorité compétente à noter des "écarts" que constatera la FFVV.

La FFVV souhaite donc que la structure de Part M du règlement 2042/2003 puisse évoluer de façon à permettre une meilleur et plus facile identification des exigences réglementaires relative aux planeurs, que ces exigences soient bien identifiées et qu'en conséquences le risque d'interprétation "généralisée" par l'autorité compétente soit évitée.

response

*Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment	<p>359 <span style="float: right;">comment by: <i>Norwegian Air Sports Federation, Gliding Section</i></span></p> <p>The Gliding Section of the Norwegian Air Sports Federation (S/NLF) supports the comments submitted by the European Gliding Union, as presented in the file <i>EGU comments on NPA 2007-8.doc</i> and posted on the EASA web site for comments to NPA 2007-08.</p> <p>In addition, S/NLF has submitted specific comments to the following:</p> <p>Appendix VIII Limited Pilot Owner Maintenance</p> <p>Part C Pilot Owner Maintenance Tasks for Sailplanes and Powered Sailplanes  <i>Page 70, ATA no. 51 "Structure"</i>          AMC M.A.502 (b) Component maintenance</p> <p><i>Page 76</i></p> <p>AMC M.A. 707 Airworthiness Review Staff</p> <p><i>Page 80</i></p>
response	<p><i>Noted</i></p> <p>Thanks for the comment (first part)          Second part of the comment</p> <p>Please to the reply in the corresponding sections where you have placed the comments.</p>
comment	<p>364 <span style="float: right;">comment by: <i>Paul Collins</i></span></p> <p>While EASA sees fit to consider the use of licensed engineers is appropriate for light sport aviation I will NEVER support the removal of sub 450kg aircraft from Annex 2.</p> <p>There is no safety case for such a dramatic imposition which has the potential to single handedly eradicate almost totally light sport aviation.</p> <p>EASA should be supporting these lower levels of aviation, not acting in a way to shut them down. Such action will have an extremely negative economic impact, and strikes at the heart of the freedoms we should all enjoy as Europeans.</p>
response	<p><i>Noted</i></p> <p>The aircraft described in your remark are classified as Annexe II aircraft, therefore they are not under the remit of the Agency and Part-M does not apply to all these aircraft within the category.</p>
comment	<p>370 <span style="float: right;">comment by: <i>Huml Miroslav</i></span></p> <p>Part M, pokud by byl aplikován v uvedené podobě, povede k zásadnímu zvýšení nároků na uživatele a provozovatele sportovních letounů v nekomerčním provozu. To povede zcela nutně k zdražení a znesnadnění možnosti provozovat letoun ke sportovnímu využití. Ve svém důsledku tak</p>

klesne vzhledem k nižším praktickým zkušenostem úrovně bezpečnosti létání. Navrhujeme proto aby Part M pro navrhovaný proces ELA – 1 neplatil a místo toho se použil systém založený na údržbě letadel podle schválené příručky pro údržbu a pravidelnými inspekčními prohlídkami. Tento systém LAA ČR již 15 let úspěšně aplikuje pro ultralehké létání v ČR a osvědčil se. Dále jako diskriminační vidíme možnost studovat materiály EASA a odpovídat na ně pouze v anglickém jazyce a ne v národních jazycích EU. M. Huml

response

*Noted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

374

comment by: *Chvojka Petr*

Czech:

Domnívám se, že navrhovaný Part M je pro sportovní a rekreační létání nepoužitelný a to z důvodů své komplikovanost a tím neúměrnými nároky na uživatele v nekomerčním provozu. Navrhují proto, aby Part M pro navrhovaný proces ELA – 1 neplatil a místo toho se použil systém založený na údržbě letadel podle schválené příručky pro údržbu a pravidelnými inspekčními prohlídkami. Tento systém LAA ČR již 15 let úspěšně aplikuje pro ultralehké létání v ČR a osvědčil se.

English:

I think that the proposed Part M is not possible to be used in sport and recreational aviation It is far too complicated and creates unnecessary complications for users in non-commercial operations. I propos not to use the Part M for proposed ELA 1 process. Instead of this I propose to use for this process the maintenance system based on approved Maintenance manual with regular inspection checks. LAA CR is using this system in the Czech Republic 15years and we have good experience with it.

response

*Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

382

comment by: *NEDVĚDICKÝ Petr*

Můj názor je, že Part M v navrhované podobě je pro sportovní a rekreační létání nepoužitelný a to z důvodů své komplikovanost a tím neúměrnými nároky na uživatele v nekomerčním provozu.

Navrhují proto, aby Part M pro navrhovaný proces ELA – 1 neplatil a místo toho se použil systém založený na údržbě letadel podle schválené příručky pro údržbu a pravidelnými inspekčními prohlídkami. Tento systém již 15 let úspěšně aplikuje LAA ČR pro ultralehké létání v ČR a osvědčil se. Na vytvoření takových pravidel pro Evropu je LAA ČR určitě připravena se podílet.

response

*Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment	<p>386 <span style="float: right;">comment by: <i>Deutscher Aero Club e.V. (DAeC)</i></span></p> <p>The Deutscher Aero Club e.V. (DAeC) is the representing body of 100.000 air sport aviators in Germany.</p> <p>The working group MDM.032 is currently developing European Light Aviation processes for certification, operation and pilot licensing of aircrafts up to 1000 kg MTOM (ELA.1) resp. 2000 kg MTOM (ELA.2). DAeC strongly believes that this NPA is not covering maintenance rules for those kinds of aircraft. It is therefore requested to start rulemaking activities for the development of maintenance requirements for aircraft certified under the ELA process and to define a procedure for transferring existing aircraft into the ELA-system upon request of TC-Holder or aircraft owner. To avoid the implementation of Part M for aircraft, which will likely fall into the future ELA-system, DAeC requests to postpone the implementation of Part until a complete set of rules for the ELA-system is in place.</p> <p>M.B.604 Continuing oversight</p> <p>The German NAA see the workshop of each club as a subsidiary of the Maintenance organisation. Some Maintenance organisations, if this interpretation is applied, then have approx. 130 subsidiaries. The NAA is of the opinion that each subsidiary has to be audited by the NAA. This will cause a huge amount of money necessary to get the initial approval. The regulation should make provision for non commercial aircraft maintenance that auditing of up to 10% of the subsidiaries is sufficient to get an overview of the organisations performance.</p>
response	<p><i>Partially accepted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraphs GENERAL ISSUES / SPECIFIC ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>
comment	<p>387 <span style="float: right;">comment by: <i>Barry Plumb</i></span></p> <p>The EASA are urged to consider derogation from the requirements of subparts G and I for all light aircraft not used for commercial purposes. For these aircraft the organisations approved under subpart F should be granted the privilege to carry out the airworthiness review and recommend the issue of an ARC.</p> <p>Time scale. The expected timescale for the introduction of Part M by September 2008 is too short to allow the outcome of the MDM 032 working group to be promulgated, commented upon and ratified. Many of the proposals from the MDM 032 group will have a significant effect on Part M, and therefore the introduction of Part M should be delayed until these aspects of MDM 032 can be incorporated. Further, there is now little time left for maintenance and continuing airworthiness management organisations to complete their preparations and obtain approval of expositions prior to the proposed introduction of Part M.</p> <p>Safety. The NPA 2007-08 makes no case at all for any increased level of safety that would be achieved as a result of the introduction of Part M. In fact the increased burden of regulation will add to costs and therefore reduce the level of flying activity working counter to safety. It is therefore considered that Part M is not fit for purpose.</p>

Costs. There is no consideration of the increased costs likely to occur as a direct result of the extra level of bureaucracy, and extra approval fees expected as a result of the introduction of Part M. It is therefore considered that the NPA 2007-08 is wholly inadequate.

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment 389

comment by: *LISY Pavel*

Dear Agency, we think, as a small mainenance company, that the Part M as it is now is too complicated to proceed all the requirements for planes used in small aviation, for example for gliders, motorgliders and simple single piston engine planes, and makes a higher costs due paperwork for customers and also for repairshop companies. We suppose to use the old system of maintenance based on Maintenance manual with annual inspections and other repair and maintenance instructions issued by manufacturer and approved by authority. We as a small repair shop work in this for more than 15 years and we never have had a problems.

response *Noted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment 391

comment by: *CAA CZ*

The proposal amending Commission Regulation (EC) No 2042/2003, Annex I (Part-M) will simplify all agenda relating to continued airworthiness in non-commercial air transport and it is necessary to support this proposal.

However CAA CZ experts have several comments and questions to the proposed text –

a) We recommend to separate Annex I (Part-M) into two parts; one for commercial air transport (it is possible to assume that requirements for commercial air transport will not be subject to great changes in future) and second part for general aviation (in this field of the air transport there will probably be need for several changes in near future).

b) We recommend to avoid the mandatory requirement for the establishment of the Maintenance Manual; at least for aircraft of 2.730 kg MTOM and less, which are not involved in commercial air transport. In case of sailplanes and balloons this only represents a transcription of the technical documentation issued by the Type Certificate holders. We recommend to keep maintenance programmes and procedures included in the Maintenance manual that are developed and approved during the type certification of the aircraft.

c) We recommend to simplify the requirements for maintenance and continuing airworthiness management of aircraft not involved in commercial air transport provided that the current level of safety will be kept. Suitable manner could be for example extension of the aircraft maintenance licence category B3 against the category B1, B2 or replacement of quality system of maintenance organisation involved in maintenance of non-commercial aircraft by

	organisational review
response	<p><i>Partially accepted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>
comment	<p>395 <span style="float: right;">comment by: <i>JIHLAVAN airplanes s.r.o.</i></span></p> <p>Our company JIHLAVAN airplanes s.r.o. produces all-metal low-wing airplanes certified under UL or LSA category. Although the airplane is designed as full-value sport plane, using it is considered as flying with flying sport device and our customers are buying it like that. Our airplanes are not commercially used except pilot training in flight schools.</p> <p>That's why we consider proposed system of maintenance and repairs as very slow and complicated. Maintenance manual including timetable of inspection and repairs is enclosed to airplane documentation and owner has to proceed according to this plan. This is how the maintenance is done.</p> <p>We have made 170 airplanes and we hadn't any extraordinary event caused by technical failure.</p>
response	<p><i>Noted</i></p> <p>However, as owners of a JIHLAVAN aeroplane will need to meet the M.A.302 requirement, a manufacturer maintenance programme and instructions for continuing airworthiness shall at minimum be made available to them.</p>
comment	<p>403 <span style="float: right;">comment by: <i>LEROCH Roman</i></span></p> <p>DearSiWe think that the proposed Part M is not possible to be used in sport and recreational aviation It is far too complicated and creates unnecessary complications for users in non-commercial operations. Therefore LAA CR proposes not to use the Part M for proposed ELA 1 process. Instead of this we propose to use for this process the maintenance system based on approved Maintenance manual with regular inspection checks. LAA CR is using this system in the Czech Republic 15years and we have good experience with it. LAA CR is ready to participate on creation of such system for ELA 1 process.</p>
response	<p><i>Noted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>
comment	<p>405 <span style="float: right;">comment by: <i>LEROCH Roman</i></span></p> <p>Dear Sirs,</p> <p><b>we think that the proposed Part M is not possible to be used in recreational aviation</b> and in sport aviation. It is too complicated. Therefore we propose not to use the Part M. Instead of this we propose to use for this process the maintenance system based on approved Maintenance manual with regular inspection checks. <b>LAA CR is using this system in the Czech Republic 15years and we have good experience with it!!!</b> LAA CR</p>

	is ready to participate on creation of such system for ELA 1 process. Thank you. Roman Leroch (area manager), UL-JIH s.r.o. Czech Rep.
response	<i>Noted</i>  Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.
comment	426 <span style="float: right;">comment by: <i>Ludwig Hessler</i></span>  Comment: Editorial changes to the printing error of <b>M.A.404</b> to <b>M.A.403</b> in both the English and other language editions. In all publications 404 is stated.
response	<i>Accepted</i>  There is an editorial mistake in paragraph M.A.710 which refers to M.A.404. This was already corrected in Opinion 06/2005, which is pending the approval of the Commission.
comment	436 <span style="float: right;">comment by: <i>IAOPA Europe</i></span>  General Comment: This NPA is grossly lacking in its response to the many criticisms of Part M as it will be applied to the non-commercial GA sector after September 2008. <b><u>TIMESCALE FOR IMPLEMENTATION</u></b> Firstly, the NPA has come at such a late stage in the transition process that there is not enough time to properly develop the Implementing Rules and their AMC for this information to be passed to the NAAs and industry to allow proper planning and development of procedures and expositions to allow a safe and phased transition to the new arrangements. To precipitate such fundamental changes at such a late stage in the transition process is in itself a safety hazard. To have such uncertainty over requirements and the new procedures at this late stage in the process also creates a number of commercial issues, especially as the extra costs associated with the new regime are so high that many organisations will be unable to move to the new arrangement. From talking to existing maintenance organisations here in the UK it is clear that these uncertainties and the huge extra costs have made any decide not to make the transition to EASA regulation, with the likelihood of there being a serious shortage of approved maintenance capability from September 2008. <b><u>Action Required.</u></b> It is essential that EASA postpone the introduction date of Part M until its final configuration has been agreed, has passed through the full consultation process and has been accepted and understood by the industry and the population of aircraft owners and operators. <b><u>GROSS OVER-COMPLICATION</u></b> Secondly, Part M as it stands, even following this NPA, remains grossly over-complex for the needs of non-commercial GA. Part M is a process with its roots in commercial air transport but it has been driven down onto sectors of aviation which show no evidence of a poor safety record relating to continuing airworthiness and which require such complex measures to resolve. The sector requested that EASA deliver a Part M 'Light' but this has not been done. One can perhaps understand why EASA might not want to develop a wholly new Rule, but would wish to incorporate a 'light touch' within the extant document. However, this has not been achieved by this NPA. The changes proposed in this NPA have perhaps rounded off some of the rougher edges within Part M, but there has been no fundamental derogation



for non-commercial GA from the full rigour of Part M. Even with the amelioration offered by this NPA, Part M remains over-complicated for the needs and safety record of non-commercial GA. There is no safety case for the imposition of this repressive regime and the RIA attached to the NPA utterly fails to elicit any form of safety hazard which Part M must address. More fundamentally, the RIA does not address the huge extra costs associated with implementation of the new regime, and the RIA itself is therefore fundamentally flawed. Many sectors of non-commercial GA have safely managed continuing airworthiness over many decades. EASA has failed to make any form of robust case for dismissing these arrangements and replacing them with Part M. Part M itself remains fundamentally flawed and it is not fit for purpose in the regulation of continuing airworthiness of non-commercial GA.

**Action Required.**

EASA must withdraw the requirement to impose Part M onto non-commercial GA and establish from first principles a new regime which is fit for purpose. In such an approach from first principles, the true safety issues must be analysed and any proposed Implementing Rule must be proportionate to the risk. At present Part M fails on all these counts.

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment 439

comment by: *Bill Taylor*

**GENERAL COMMENT - CAMO ATTENDANCE AT AIRCRAFT INSPECTION**

Part M, Subparts F, G and I are very badly structured for application to GA/Sport aviation, especially, the requirement for the CAMO itself to carry out a physical survey of the aircraft during during ARC renewal. This action is the only occasion when CAMO (Subpart G) staff are required to actually visit the aircraft. In all other cases the physical functions and interventions are carried out by Sub Part F maintenance staff (or a Part 66 licensed engineer, or the owner on his own authority). The regulation even accommodates the probability that the CAMO may not have staff which can actually work on the aircraft, in which case the CAMO representative is nothing more than a highly qualified and therefore very costly bureaucratic addition.

This detailed requirement alone will involve thousands of man hours, and kilometres of business travel, potentially to remote locations, by CAMO staff, only to stand alongside and watch a process that is essentially a maintenance activity. While this practice is acceptable in large, centrally located CAT-type facilities, it is wholly uneconomic and unnecessary in light and sport GA. In this instance, surely the effective way to ensure the embodiment of mandatory modification and airworthiness directives is to accept the opinion of the maintaining individual or organisation. Indeed, as I have previously recommended elsewhere, it is most sensible and logical to combine the two (Sub Part F and G) functions at the Subpart F level, as is effectively the case today with the UK CAA M3 approval.

response *Noted*

The function of a CAMO is to manage the continuing airworthiness of an aircraft, not to perform maintenance (which is the function of the Subpart F

maintenance organisation).

The function of a CAMO is as important as that of a Subpart F organisation because otherwise you face the risk of not performing all the required maintenance.

comment 441

comment by: SCL

I understood EASA was going to make an improvement in flight safety in Europe. All it has done for General Aviation so far is complicate things.

I refer in this case to aircraft maintenance.

I have operated my Bolkow Junior B208C for 30 years under the CAA LAMS maintenance schedule quite safely.

Your proposals are detrimental to the operation of my and many other general aviation aircraft. The time spent on the administration would be much better spent doing "hands on" inspection of the aircraft OR keeping up to date with flying techniques.

I have just found that renewing my C of A on this aircraft will cost me three times as much.

How.....I have to fly the plane to my M3 organisation and then return later to collect it. That's every year instead of every three years. It takes a day to do that trip and with the weather factored into the operation it could take two

Then there is the payment to the M£ organisation for the ARCs. Would you not think that after doing it for 30 years I know what's safe and what's not.

Mr Barry Tempest has submitted his response which I agree with entirely.

response *Noted*

In the case you mentioned, you have to fly the aircraft to the authority or a qualified entity every year, this is the case when you have no contract with a CAMO organisation. If you have a contract with a CAMO organisation for carrying the airworthiness management, the aircraft need to be visited every 3 years only.

comment 443

comment by: BRŠKOVSKÝ Jan

Domníváme se, že Part M v navrhované podobě je pro sportovní a rekreační létání nepoužitelný a to z důvodů své komplikovanosti a tím neúměrnými nároky na uživatele v nekomerčním provozu. Navrhujeme proto aby Part M pro navrhovaný proces ELA – 1 neplatil a místo toho se použil systém založený na údržbě letadel podle schválené příručky pro údržbu a pravidelnými inspekčními prohlídkami. Tento systém LAA ČR již 15 let úspěšně aplikuje pro ultralehké létání v ČR a osvědčil se. Na vytvoření takových pravidel pro Evropu je LAA ČR připravena se podílet.

We think that the proposed Part M is not possible to be used in sport and recreational aviation. It is far too complicated and creates unnecessary

complications for users in non-commercial operations. Therefore LAA CR proposes not to use the Part M for proposed ELA 1 process. Instead of this we propose to use for this process the maintenance system based on approved Maintenance manual with regular inspection checks. LAA CR is using this system in the Czech Republic 15years and we have good experience with it. LAA CR is ready to participate on creation of such system for ELA 1 process.

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

451

comment by: *Vahalik Jiri*

The part M is not - according to our point of view – suitable and possible to be used for our us and our customers in non-commercial operations. We think it is too complicated. Please take into consider the maintenance system based on approved Maintenance manual with regular inspections check. We have good experience in Czech Republic. DOVA Aircraft, s.r.o.

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph SPECIFIC ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

453

comment by: *John Armin*

Microlight aircraft - ie aircraft not exceeding 450kg mauw should be completely exempt from the latest proposed amendments to Part M.

The proposed shift towards a highly regulated licensed engineer/inspection regime is totally inappropriate for simple low energy aircraft and flies against the whole spirit of microlight aviation. The present emphasis of owner responsibility for airworthiness and maintenance within a simple non-beauracracic annual inspection framework works. This is borne out by statistics which confirm a very low accident rate when compared with heavier aircraft as well as minimum risk to the general public as a result of the current restrictions on airspace and avoidance of built up areas.

Microlight aviation does not need the burden of extra regulation, beauracracy and the additional prohibitive costs of a licensed engineering maintenance/airworthiness regime. The present regulatory structure for complying with Section S in the UK is already overburdened because there are not enough engineers to do the approvals. Manufacturers are understandably reluctant to make new investments and the industry is already suffering. The additional costs of the new proposals for Part M would undoubtedly force many participants out of the sport. We are not talking about an elite group here but normal people on average incomes who love their sport.

We need less regulation not more in microlight aviation and we should not be lumped in with heavier more complex aeroplanes for the sake of beauracracic convenience.

response *Noted*

The micro-light aircraft are classified in Annexe II to Basic Regulation 1592/2002, and are already exempt from meeting Part-M requirements.

comment

459

comment by: *Vavřík Josef*

Domníváme se, že Part M v navrhované podobě je pro sportovní a rekreační létání nepoužitelný a to z důvodů své komplikovanosti a tím neúměrnými nároky na uživatele v nekonvenčním provozu.

Navrhujeme proto aby Part M pro navrhovaný proces ELA-1 neplatil a místo toho se použil systém založený na údržbě letadel podle schválené příručky pro údržbu a pravidelnými inspekčními prohlídkami. Tento systém LAA ČR již 15 let úspěšně aplikuje pro ull létání v ČR a osvědčil se. Na vytvoření takových pravidel pro Evropu je LAA ČR připravena se podílet.

response

*Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

463

comment by: *UK CAA*

This is a comment against Part M AMC MA.605(a) but we feel it is relevant to this proposal.

PARAGRAPH: Part M AMC M.A.605 (a) Facilities

COMMENT:

Add new para 4

JUSTIFICATION:

AMC.605 (a) refers to organisations having hangars to comply with the requirement of Facilities in MA.605. Balloons and Airships can be inspected to a satisfactory standard and particularly the envelope if it is laid outside of a building and either cold or hot inflated. It is not necessary to conduct this work inside a "hangar". Within the United Kingdom, balloon inspection has been conducted by approved inspectors in this manner with the approval of the Civil Aviation Authority since 1972 without any concerns. If further rectification is required for say sewing new panels within an envelope then only this is required to be conducted at a suitable location in terms of equipment and facilities appropriate to the task.

**PROPOSED TEXT:**

AMC M.A.605 (a) Facilities

1. Where a hangar is not owned by the M.A. Subpart F organisation, it may be necessary to establish proof of tenancy. In addition, sufficiency of hangar space to carry out planned maintenance should be demonstrated by the preparation of a projected aircraft hangar visit plan relative to the aircraft maintenance programme. The aircraft hangar visit plan should be updated on a regular basis.
2. Protection from the weather elements relates to the normal prevailing local weather elements that are expected throughout any twelve-month period. Aircraft hangar and aircraft component workshop structures should be to a standard that prevents the ingress of rain, hail, ice,

snow, wind and dust etc. Aircraft hangar and aircraft component workshop floors should be sealed to minimise dust generation.

3. Aircraft maintenance staff should be provided with an area where they may study maintenance instructions and complete continuing airworthiness records in a proper manner.
4. Balloons and airships may be inspected at a location other than a hangar, where the weather and ground conditions are suitable to achieve satisfactory inspection standards, and prevent the balloon or airship from damage. Other maintenance must be conducted at a facility suitable for the intended task. The environmental and facility conditions required for inspection and maintenance must be defined in the Maintenance Organisation Manual.

response

*Accepted*

Paragraph AMC M.A.605 modified accordingly.

Refer to the consolidated version of Part-M at the end of this CRD.

comment

467

comment by: *British Microlight Aircraft Association*

Whilst currently microlights fall into Annex 2 and so outside the scope of EASA and Part M the microlight community have an unease that regulation designed firstly for CAT has now been watered down for non commercial lighter aircraft and may ultimately be applied to the lightest sporting aircraft. It is felt that however watered down the requirements are they are not appropriate for microlight aircraft or light sporting aircraft falling outside the microlight category.

Our concern is that regulations will be formed that will eventually impinge on microlights, should Annex 2 be withdrawn, and that these regulations will adversely affect our type of flying activity.

Sporting aircraft are operated for fun by their owners and commercial operation is restricted to non-passenger carrying (crop spraying, banner towing, photography etc) with the exception of pilot training.

Risk to passengers is minimised by the number able to take flight, 2 persons, with 50% of the people on board being crew. It is extremely unlikely that any accident will result in great loss of life and then only of persons actively participating in a sport. Many more persons are hurt or killed each year in sports such as skiing and horse riding without the government of the country feeling the need to regulate the activity.

Sporting aviation is the route through which many commercial pilots begin their flying careers and many thousands of other people seek relaxation. To many of the participants maintenance of the aircraft is an important part of their hobby. To others it is not. In the UK microlight pilots have been owning and operating their own aircraft, with help from the British Microlight Aircraft Association, for nearly 30 years. During that period the accident rate, due to poor maintenance has been almost nil and certainly comparable with heavier aircraft operated through licensed maintenance organisations.

Any increase of requirements for light sports aircraft operated non-commercially, or limited to solo flights or training, is unnecessary and will put a financial burden and inconvenience on sporting/recreational pilots.

	<p>The British Microlight Aircraft Association do not support reduced scope for owner maintenance or increased layers of oversight by outside organisations.</p> <p>G Weighell</p> <p>Chief Executive British Microlight Aircraft Association</p>
response	<p><i>Noted</i></p> <p>There is no plan to remove Annexe II.</p> <p>Part-M should not be seen at lowering the requirements for aircraft operated in commercial air transport to aircraft not operated in CAT, when Part-M was drafted, both categories of aircraft were considered.</p> <p>Regarding your remark on pilot-owner authorisation, the list of tasks in Appendix VIII is prepared and issued by a working group, taking consideration of industry but also on owners considerations.</p>
comment	<p>471 <span style="float: right;">comment by: <i>Josef Strobach</i></span></p> <p>I think that the proposed Part M is not possible to be used in sport and recreational aviation It is far too complicated and creates unnecessary complications for users in non-commercial operations. Therefore LAA CR proposes not to use the Part M for proposed ELA 1 process. Instead of this we propose to use for this process the maintenance system based on approved Maintenance manual with regular inspection checks. LAA CR is using this system in the Czech Republic 15years and we have good experience with it. LAA CR is ready to participate on creation of such system for ELA 1 process.I am booth owner and pilot of factory manufactured plane Evector Eurostar and with current maintenance system in Czech Republic I am quite satisfied.</p>
response	<p><i>Partially accepted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>
comment	<p>489 <span style="float: right;">comment by: <i>MECIAR Marian</i></span></p> <p>By our opinion, the proposed Part M is not possible to be used in sport and recreational aviation It is far too complicated and creates unnecessary complications for users in non-commercial operations. This kind of operations (operators) ask for very simple regulation and requirements based on to use approved Maintenance manual with regular inspection checks. This proces will be perform by owner or pilot of aircraft. LAA CR is using this system in the Czech Republic 17years and members have good experience with it.</p>
response	<p><i>Partially accepted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>
comment	<p>494 <span style="float: right;">comment by: <i>M Wilson</i></span></p> <p>ECOGAS agrees with the comments numbers 181, 187, 191, 192, 193, 195,</p>

196, 198, 223, 224 submitted by Mr Bill Taylor of deHavilland Support. Mr Taylor's comments can be considered as ECOGAS comments

In general terms ECOGAS believes Part M remains a code developed for airline operations/large organisations. Whilst we do not oppose any of the changes of this NPA in principle, we believe the starting point is wrong and no matter how many NPA's are developed the Part itself needs to be re-written from scratch to properly reflect the needs of General Aviation. It is our view that the radical work within MDM032 for initial airworthiness provides a model.

response

*Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

495

comment by: *European Gliding Union (EGU)*

In producing NPA 2007-08 EASA has clearly dismissed the widely held view in industry that there is a need to develop proportionate standardizing regulation under a Part M 'Light'. The EGU continues to contest the rationale behind a 'one size fits all' regulation. The reasons given in IV-12 of NPA2007/08 for a single Part M regulation are those for the convenience of the regulator, and not for the satisfactory and economic function of the lighter end of the GA sector / industry. These are minor, secondary issues compared to continuing effective and economic operation of all light and sport aircraft.

The attempts performed by several of our members to apply the current version of Part M in their country has systematically shown that this implementation will result in a dramatic increase of the paperwork and of the costs of the maintenance of gliders without any benefit for safety.

While this NPA has to some extent relieved the processes associated with compliance with Part M the basic distribution of roles tasks and responsibilities remains totally unsuitable for gliding and light aviation in general.

The EGU is fully aware of the current discussions in EASA Group MDM.032 about the development of the European Light Aircraft concept for certification, operation and pilot licensing of aircrafts up to 1000 kg MTOM (ELA.1) resp. 2000 kg MTOM (ELA.2). The EGU wholly supports this development and wishes EASA to extend this concept to maintenance. The gliding movement needs a range of more open regulations for these aircraft wherein, as a matter of principle, the owner remains responsible for the safe operation of his aircraft without the necessary stipulation of a hierarchy of professionally licensed organisations and prescribed detailed procedures.

Given that such a policy is now under advanced consideration, the imposition in the interim of Part-M (amended to NPA2007/08) with its prescriptive approach would create great cost and hardship. This would be particularly severe to the European gliding movement which for many years has produced in most countries a safe and economic model of glider maintenance. In everyone's interest the implementation of this NPA should be delayed pending further consideration of better options to fit with the philosophy of the emerging ELA category. Should this current draft of Part-M be pursued, irrespective of the above comments, EASA should at least commission an in-depth objective RIA, taking fully into account the potential impact on the diverse light GA sector, to demonstrate clearly that it holds value compared to

this new MDM032 (ELA) approach to the GA/light/sport aviation sector

#### Justification

In light/sport/GA aviation a lighter regulation has, over several decades, been demonstrated to be effective and specifically SAFE.

The separate limbs of the regulation as set out in Part M (Sub Parts F, G and I) complicate and diversify these roles in a manner which is not appropriate, requiring owners (usually private individuals) to engage commercially with a multiplicity of regulatory bodies and organisations many of which are themselves overburdened with external assessment and quality overviews inappropriate to the level of their activity and irrelevant to safety. The potential additional expense of these organisational structures, processes and measures are considerable and will be directly to the detriment of the development of this sector.

All other comments made by EGU against this NPA are direct examples of this overriding issue of principle.

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment 512

comment by: *Steve BARBER*

Gliders are simple aircraft, with simple mechanical control systems, few instruments and no flight-critical electrical systems. There is no need to formalise the maintenance requirements for gliders to the extent proposed.

The BGA system has evolved from practical experience and has worked well for many years. It has proved to be safe and can be implemented by pilots, owners and qualified, but often unpaid, inspectors/engineers who give up their own time voluntarily to help their friends. There may be a case for tightening procedures, but the bureaucracy and costs which will inevitably accompany the existing proposal are far far in excess of the benefit to be gained.

All that should be done is to exclude gliders from the part M requirements and formalise the existing BGA procedures into a separate document. (I have noted that multiple similar documents do increase the workload of the administrators, but I do not accept that the benefit to the administrators is sufficient justification to add enormously to the workload and expense of those who will have to implement the excessively complex rules).

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment 514

comment by: *Bob Bromwich*

I have spent some time reading the very large and detailed 144 page NPA 2007-08 document and find it seems to have been written by legal people trying to control engineering activities ! In fact, it would seem very difficult for



any normal person to read the document and understand all the unintended consequences that might appear in the future if it becomes law.

My experience is 40 years of detailed work on gliders, towplanes and self launching sailplanes. I am also a pilot with some 3000 hours, and feel that my opinion should carry weight along with the opinions of my peers, many of whom have opinion, yet are not able to "jump through all the hoops" and properly respond to such a complex and difficult computerised comment process !

Please excuse my making comments only here in the general section. The reason for this is that the framework of the multitude of offered comment headings is too complicated and detailed to reply to easily - and also that framework rests upon proposals within the document which are biased due to pre-disposed lawmaker opinion.

Remember, Rules do not fly, but aircraft might fly if there are not too many conscriptive rules.

Please also consider that if a lawmaker makes it too complicated and difficult and technically complex to argue against suffering under a raft of imposed rules, and very few replies are received, then that lawmaker should not proudly announce that very few replies have been received, and therefore the majority who did not participate with the comment process must be happy to have the imposition of the lawmakers rules.....

It is only by getting an actual vote from every possible participant **pilot** (note the word pilot here) that a lawmaker might understand how biased his proposed laws might seem to those influenced.

Now, if I may be allowed to make some general observations which reflect on most of the comment headings :

- The rules will cause a pilot owner to get caught up in much more bureaucratic paperwork
- The rules will mean using costly General Aviation Servicing bases - which will not be able to provide "same day servicing"
- In the case of self launching sailplanes, of which there are only a very small number in the United Kingdom, the local General Aviation Aircraft Servicing bases will never before have serviced such self launching sailplanes
- The proposed rules have unintended safety consequences where, for instance , a minor fault that just happens to involve a part prohibited from servicing is allowed to get steadily worse because it cannot be fixed without a months delay at a remote servicing base

The bottom line is that if the costs and paperwork and down time involved with operating self launch sailplanes, light planes etc become too high, then many pilots would be forced to give up flying - or emigrate with their aircraft to a country where sensible rules thrive.

The latter situation would be a great loss to Europe, which would not benefit even from taxing the everyday living costs of those unhappy pilots and their families.

However, the lawyers would be very pleased with the resulting situation - overall safety would rise, because there would be less aircraft owners who could afford to fly in the regulated European Skys !

It is rich (this is slang in this context for selfishly biased) for law makers to say that they are "trying to alleviate the legislative burdens" ---- when the burdens should not have been imposed in the first place !

**This legislation MUST be reconsidered in a proper way, fair to pilots, not lawyers**

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

515

comment by: *Jozef Sajan*

I think that the proposed Part M is **too complicated** for recreational users. In the Czech and Slovak Republic is functioning system periodical revisions. This system is easy applicable for recreational users.

response

*Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

516

comment by: *Programme Manager Europe Air Sports*

Extension of the rulemaking period

Europe Air Sports welcomed the extension of the comment period. The importance for the aviation community and the complexity of the issue justify this slight delay in the rulemaking process. This will contribute to the better acceptance of this regulation since the EASA efforts to inform the stakeholders in dedicated briefing events throughout Europe increased the information level and the understanding of the affected stakeholders considerably. EASA wants to stress that this general pattern of an intense information campaign should become a standard part and procedure for further rulemaking activities where and when the huge number of European airports operators is affected. Both sides will benefit by applying this procedure.

response

*Noted*

comment

517

comment by: *Graham Morris*

This document seems to propose a tremendously complex maintenance system quite out of proportion to those demonstrated for many decades as safe and effective for both gliding and GA generally.

The rigid approach to a wide range of requirements, A380 to Glider, indicates a depressingly unimaginative view of what is required. Depressing in a body as young as EASA! It is hard to imagine who will benefit from such an arrangement.

For all non-commercial aviation a much 'lighter touch' is absolutely essential if much money and effort is not to be wasted.

I can only conclude that this proposal has been generated by professional bureaucrats, certainly not by professional engineers or aviators, professional or otherwise.

response *Noted*

This NPA has been built on a proposal made by a working group composed of representatives of general aviation associations of light aircraft where Europe Air Sport is largely represented. The group composition of this task M.017 is shown on the web site.

The rulemaking procedures are shown on an open web site at:

[http://www.easa.europa.eu/home/r\\_rps\\_documentation.html](http://www.easa.europa.eu/home/r_rps_documentation.html)

and the drafting of this NPA obeys to these procedures.

comment

519

comment by: *SNMSAC Syndicat National des Mécaniciens Sol de l'Aviation Civile*

**General comment.**

We are against this NPA because the **issue is not in accordance with ICAO requirements** for maintenance knowledge and experience checked by exam which must be needed as well as for pilot owners.

Engineers to be allowed to flight must follow regular training to get a flight licence, some of us did so. Why do pilots owner will be exempted of passing our regular maintenance training ?

The risk due from a bad maintenance is not support only by them but also to free passenger they are allowed to take on board as well to the public population flew over.

response *Noted*

The Term of reference of M-005 was not to challenge the existence of the pilot owner maintenance in accordance with Part M Appendix VIII but to improve it.

Additionally, the concept of pilot-owner maintenance is not new: sufficient experience in various European and American countries demonstrates that no significant reduction of safety level exists.

Paragraph 57 of the NPA explanatory note gives additional elements: records of accidents and accidents were scrutinized and no statistics show critical information on cases where maintenance was badly performed by any pilot-owners involved.

The list (Appendix VIII of Part M) has been compiled to exclude safety critical items and no current evidence exists to support that self assessment would produce accidents caused by Pilot-Owner Maintenance. Assessment of a pilot-

owner's competence by a maintenance organisation or a licensed person or NAA was considered to be unjustified when compared against the perceived safety benefit

In addition, as described in M.A.201 (a) & (c), the owner remains responsible for the maintenance tasks performed.

Refer also to paragraph 64 of the NPA explanatory note where additional elements to the assessment of the pilot's capability are given.

The last part of the comment shows a mis-understanding of the pilot-owner maintenance concept which is also based on the fact the pilot-owner may be the one who is going to fly the aircraft just after maintenance task have been carried out. The pilot is therefore responsible and no statistics permit to reduce considerably the tasks or repeal this concept.

comment

520

comment by: *SNMSAC Syndicat National des Mécaniciens Sol de l'Aviation Civile*

Why **UAV's** not involved whit this issue ? **As other flying machine they must be maintenance regulated.**

response

*Noted*

UAV systems with a maximum take-off mass of 150 kg or more; which are not excluded by Article 1(2) or Article 4(2) and Annex II of EC Regulation 1592/2002 are subject to Part-M

comment

521

comment by: *Programme Manager Europe Air Sports*

ELA 1 and ELA 2

MDM.032, the task force for developing a concept for better regulation recently decided to amend Part 21 Initial Airworthiness by new regulations for the process and certification of ELA aircraft below 2000 kg and ELA aircraft below 1000 kg MTOW.

This concept, the deliberations and ideas are naturally not included in this NPA consultation. The stakeholders in general are not yet informed and familiar wiith that concept being developed. It is therefore stressed and appreciated that EASA Rulemaking accepts this new approach as a contribution to a more effective and acceptable rulemaking, and to exclude aircraft falling under the two ELA concepts from the scope of the present Part M. It is strongly advised by EAS to set up a rulemaking task for developing a Part M ELA which can be as light as: The owner/operator is responsible for the continuing airworthiness of his aircraft.

This new rulemaking task needs to include bridging criteria and transfer procedures for opening the possibility to transfer existing aircraft to ths new regime if the TC holder or operator wishes.

EAS is willing to make substantial contributions to develop and enable this approach which is highly dependent on the acceptance of the next general comment, an extended transition period for Part M beyond the 28.09.2008.

response

*Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment	<p>522 <span style="float: right;">comment by: <i>TEPLY Zdenek</i></span></p> <p>Part M v navrhované podobě je pro sportovní a rekreační létání nepoužitelný a to z důvodů své komplikovanost a tím neúměrnými nároky na uživatele v nekomerčním provozu. Navrhujeme proto aby Part M pro navrhovaný proces ELA – 1 neplatil a místo toho se použil systém založený na údržbě letadel podle schválené příručky pro údržbu a pravidelnými inspekčními prohlídkami. Tento systém LAA ČR již 15 let úspěšně aplikuje pro ultralehké létání v ČR a osvědčil se.</p>
response	<p><i>Partially accepted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>
comment	<p>548 <span style="float: right;">comment by: <i>Programme Manager Europe Air Sports</i></span></p> <p>Transition Period</p> <p>EAS welcomes and appreciates the effort which was put into this NPA by EASA and the stakeholders to considerably amend the present Part M for an easier and less bureaucratic application to light and airports aircraft. Nevertheless, the sum of changes and the time required by EASA and EU followed by the time period needed for adjusting the Member State legislation requires an urgent initiative to extend the date laid down in the Regulation 2042 for applying Part M in full to all aircraft. The 28. Sep 2008 cannot be kept as target date, as it would leave only about 6 month if the legislation process of amending Regulation 2042 and Part M would be finished in March 2008. Any further delay would increase the difficulty for the NAAs and the affected owners who need to know in advance what regulation to prepare and how to organize the airworthiness activities.</p> <p>EAS strongly and urgently asks to postpone the application of Part M to a date which should be effectively determined by a Part M ELA and its entry into force. The optimum would be to coordinate the target dates for Part M and Part M ELA with the effective dates of the IRs for Licensing and Operations.</p>
response	<p><i>Partially accepted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>
comment	<p>551 <span style="float: right;">comment by: <i>Marek Machala</i></span></p> <p>I think this Part M is not possible to be used in sport and recreational aviation. It is complicated and creates unnecessary complications for users in non-commercial operations. I have good experience with maintenance system based on Maintenance manual with inspection checks.</p>
response	<p><i>Partially accepted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>

comment	<p>552 <span style="float: right;">comment by: <i>Frantisek BARTL</i></span></p> <p>I think that the proposed Part M is not possible to be used in sport and recreational aviation It is far too complicated and creates unnecessary complications for users in non-commercial operations. Therefore I prefer not to use the Part M for proposed ELA 1 process. Instead of this we propose to use for this process the maintenance system based on approved Maintenance manual with regular inspection checks. LAA CR is using this system in the Czech Republic 15years and we have good experience with it. LAA CR is ready to participate on creation of such system for ELA 1 process.</p>
response	<p><i>Partially accepted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>
comment	<p>553 <span style="float: right;">comment by: <i>European Microlight Federation</i></span></p> <p>Continuing airworthiness activities for certain aircraft included in Annex II may be undertaken by the pilot/owner. Indeed, in the case of homebuilt aircraft the entire construction from raw material may be undertaken by the pilot/owner. In many countries such aircraft may be used in limited commercial activity.</p> <p>Where comprehensive accident statistics on such aircraft are available, for example from countries such as Canada, France and the UK, it is clear that the level of airworthiness-related accident for such aircraft is very low and, in any event, not significantly higher than for aircraft for which the maintenance that may be carried out by the pilot/owner is far more limited.</p> <p>On the basis of the above and initial discussions with EASA staff it was anticipated that EASA would broaden the range and extend upwards the MTOM of non-complex aircraft which could operate under a similarly relaxed regulatory regime up to 600 kg, 750 kg or even 1000 kg. It was anticipated that the output of the MDM.032 Working Group would provide the input to deliberations relating to continuing airworthiness regulations in this respect.</p> <p>Instead, the amendments to Part-M for aircraft not used in Commercial Air Transport imply no such change and the proposed implementation date for Part-M of 28 September 2008 allows neither the deliberations of MDM.032 nor the input from the associated consultation process to be taken into account in the proposed regime for continuing airworthiness.</p> <p>In these circumstances the implementation of Part M for sub-1000 kg aircraft should be delayed until the final results of the MDM.032 Working Group have been delivered, the comments resulting from the associated NPA have been analysed and their conclusions used in the development of rules for the continuing airworthiness of such aircraft. Then a set of appropriately light rules should be drafted for those sub-1000 kg that fall outside Annex II.</p>
response	<p><i>Noted</i></p> <p>Refer to answer made under comment 467 from the British microlight aircraft association.</p> <p>When the aircraft is classified in Annexe II, Part-M and NPA 2007-08 does not</p>

apply.

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

556

comment by: *Michel LEBLANC*

We know that the Maintenance regulations have been driven before Airworthiness questions in the EASA schedule.

But the CFI members who are very interested in the Pilot owner maintenance for their not used in Commercial Transport TMG, propose to adapt Maintenance categories in the same way as in the projected Airworthiness rules, with ELA 1 and ELA 2.

For their ELA 1 TMG <1.000 kg, they are able to get the same security level with non Form One spare parts, even for engine and propeller Maintenance. The Belot report has proved that.

And our members think that a complete coherence between Airworthiness and Maintenance rules is interesting.

Thank you to the EASA for its participative management way into the new rules definition.

Michel Leblanc

Club Fournier International President.

response

*Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

558

comment by: *Michael Poole*

At this time, certain aircraft including microlights and home built are contained within Annex II. these aircraft may be maintained by the pilot/owner. In the case of homebuilts the pilot /owner will have an intimate knowledge of his craft having built it from either a kit or raw materials.

Experience from around the world would suggest that accidents resulting from airworthiness related causes are not significantly greater for this group than for aircraft falling under much more restrictive maintenance regulations.

It was understood that EASA would have a category of simple very light-weight (upper limit to be determined) aircraft that could operate under a much relaxed maintenance regime. However it would seem that this will not be the case as the implementation date of September 2008 for Part-M does not give time for the outcome of the MDM.032 working group to be taken into account.

The extra burden placed upon the lighter end of recreational aviation by the imposition of these irrelevant proposed regulations will result in its destruction. It is important to limit safety regulation only to that required to maintain an acceptable level of safety and not have regulation for regulations sake.

In view of the above, imposition of these regulations should be limited only to those aircraft above some reasonable minimum weight, say 750 kg

response

*Noted*

Part-M does not apply to microlights.

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

560

comment by: *Laurie HURMAN*

If it is the intention to remove sub 450Kg microlight aircraft from Annex 2 in the future then these regulations must take that into account. Failure to plan now may make it impossible to dissolve Annex 2 in the future.

The application of the present Part M to Microlight and other Permit to Fly aircraft would severely curtail their growth and damage a thriving european industry.

No safety case is known to exist to support the view that the application of Part M to microlight aircraft would improve safety.

In the absence of a benefit to safety it is impossible to justify the vastly increased cost incurred by applying Part M to Microlight aircraft.

response

*Noted*

There is no intention to remove microlights from Annex II.

comment

565

comment by: *Programme Manager Europe Air Sports*

Grandfather rules and procedures

Regulation 2042 specifically addresses the transfer procedures of maintenance organisation approved under JARs to approvals under Part M. But there are no provisions to allow maintenance organisation, especially smaller and specialized ones, to transition into the Part M regime except fulfilling the requirements which are asked for by the national aviation authorities, depending on their interpretation, legal system and present procedures.

EAS is asking to establish a standardized procedure, to be applied by NAAs, to transfer the existing national approvals of maintenance organisations into approvals as laid down in Part M. Many of those organisation have a high reputation and expertise, acquired by the engineers and employees during many years of caring for the airworthiness of aircraft and flight safety.

A smooth transition period must be possible before all requirements of Part M need to be met and fulfilled.

Second, EAS strongly recommends to introduce flexibility into the approval procedures for the different maintenance privileges, authority audits for the purpose of aproving subpart F or G/I organisations must be recognized and accepted as basis for a subsequent approval or when applied for a F and G/I approval, the audit shall be only one for all approvals.

response

*Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.



comment	<p>567</p> <p style="text-align: right;">comment by: <i>Swedish Soaring Federation</i></p> <p>The work to apply the current version of Part M in Sweden show clearly that this implementation will result in a dramatic increase of the paperwork and of the costs of the maintenance of gliders without any benefit for safety. Safety records over several decades show that there is no safety case for changing the existing arrangements.</p> <p>Maintenance of gliders has not been a problem, statistically, in terms of the causes of fatal or serious accidents in the European gliding community. The maintenance regimes, mostly managed in practice by the gliding associations or federations, have assured an adequate level of safety, and are based on generic maintenance programmes or check lists that apply to all gliders.</p> <p>Justification</p> <p>We still find Part M (amended to NPA 2007/08) very complicated and not suitable for gliding and light aviation in general.</p> <p>All other comments made by SSF against this NPA are direct examples of this overriding issue of principle.</p>
response	<p><i>Partially accepted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>
comment	<p>571</p> <p style="text-align: right;">comment by: <i>S Rogers</i></p> <p>Bearing in mind that the main objective was to alleviate the regulatory burdens imposed on <b>light</b> aircraft you would appear to have missed the point of the exercise. I appreciate that in another place there are moves to reorganise the classifications of light aircraft. I also appreciate that at this moment permit aircraft and microlights are treated as anational responsibility. However, this catch-all approach for all <b>light</b> aircraft up to nearly 3 tonnes really misses the point. You are guilty of grouping the equivalent of bicycles with 4x4 SUVs.</p> <p>Having formerly worked in a National Ministry and served on International Committees I am well aware of the empire building and job preservation views taken by many in that environment. This NPA has all the indications of over-regulation that I thought it was designed to overcome. The fact that the document itself consists of 144 pages in my opinion speaks for itself. Volume does not replace thought.</p>
response	<p><i>Noted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>
comment	<p>574</p> <p style="text-align: right;">comment by: <i>Souta Ota</i></p> <p>My personal view is that the proposed Part M is complex, over the top and useless in sport and recreational aviation. It is far too complicated and creates</p>

unnecessary complications for users in non-commercial operations.

Obviously you are trying to simplify your own task by the suggestion of maintaining one document only. From my Ultralight pilot's point of view it is like a pilot training syllabus for the Complex Multiengine Turbojet with split paragraphs for the simplified Single Engine ultralight training, where only a fraction of it applies to the SLA pilot. Resulting excess of information will overwhelm the requirements for the non-commercial maintenance requirements and may have negative effect on the sports and recreational aviation.

We have existing simple working programme in the LAA CR, which is easily understood, enforced and working. From the accident statistics you present, it is clearly shown that the current simple process works, why to make it so complex? We adhere to maintenance system process based on approved Maintenance Manuals with regular inspection checks. It works well.

**I strongly oppose to substantial increase in bureaucracy involving operation and running of SLA, which is not operated commercially.**

response

*Noted*

As you are referring to ultra-light, this Part-M doesn't apply. However refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment

577

comment by: *Gristwood, Peter*

I would like to express my deep concern at this paper.

Firstly, given that for some aircraft, the Part M provisions are already in place, and are leading to additional and unnecessary cost to owners and maintenance organisations, with little additional safety benefit.

EASA appear to be more concerned with systems and processes rather than the practical difficulties which will inevitably lead to greater costs falling on the poorest sector of aviation.

In consultations held by the UK CAA there are usually estimates given as to the likely cost of any changes imposed on users, but here there are no estimates or judgements.

For over a year now, we have been awaiting news of the promised Part M Light - a process more in tune with the realities of operating and maintaining our light aircraft, not used for commercial purposes. As time has passed, we now learn that this is not to be, and, for administrative convenience, we are to be exposed to the full force of the regulation.

This is likely to be based on the arbitrary measure of the MTOW of the aircraft in question, with little thought of the real complexity of an aircraft.

I operate a DR220 (MTOW of 780kg), currently on a C of A, yet, until recently it was an Annex II type outside of the scope of this document. This was sensible as it is almost identical to the Jodels who are on a Permit to Fly, and maintained at much less cost. However, it has now been returned to the EASA list and will be subject to all the provisions.

Contrast this with some of the VLA types, with complex systems and engine management. These can be maintained in a much more traditional way than can mine, yet are much more complex.

Further, my aircraft is based far away from a large maintenance organisation and constant reference to the CAMO would be expensive and difficult compared with my current arrangements.

I use a licenced engineer who works alone and comes to my airfield when required and carries out and signs off the work.

This is simple and effective and safe. He knows my aircraft as well as anyone, and costs comparatively little. After next year, without a CAMO as an employer, he will not be able to continue in maintaining my aircraft, and those of many others, and will retire from the work.

I cannot believe that EASA would wish to remove such people from the, already limited, pool of available engineers

Moving to the process of a 'Controlled' environment with a CAMO will restrict my ability to operate and add time, cost and serious delay to the resolution of maintenance issues.

EASA have failed to recognise that aircraft such as mine do not necessarily operate with easy access to maintenance facilities or licenced engineers employed by a CAMO.

The CAMO, according to this document, would appear to have much enhanced powers of control over the airworthiness of my aircraft. They are able to specify exactly what I am permitted to do under 'pilot maintenance', and, if they so wish, can prevent me from carrying out any tasks at all. This would appear to give a CAMO draconian powers to increase their profits, if they so wish.

They are able to insist on a full maintenance review if they wish, or recommend a one or two year ARC.

Further, should I have a dispute over the quality of work by my CAMO, I am to be tied into a contractual relationship with them, and moving to another firm will result in expense and difficulty.

All of this additional bureaucracy and cost will have little practical effect on safety, as there are comparatively few accidents which have been due to faulty maintenance.

In short, the current arrangements have worked well, and there is little or no justification for EASA to impose overly bureaucratic measures on the lighter end of aviation.

I would suggest that the Agency postpone the implementation by Sept 2008 of the Part M measures pending the outcome of the current working group and that Part M Light be reinstated.

There should be a single weight class for aircraft not operated for commercial purposes under 2750 kg but with variations based on complexity (ie variable pitched prop, retractable u/c etc)

EASA should also carry out a full analysis of the costs of implementing these measures and undertake a cost-benefit analysis before taking further action.

Many of us operating small aircraft on a C of A are not able to fund major increases in our costs, especially when there is no obvious benefit in safety or efficiency. This measure is one that will have a damaging effect on our sector of aviation and needs to be rethought, as a matter of urgency.

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

An aircraft below 1000Kg MTOM may take advantage of alleviated rules for ELA1 aircraft as shown in the consolidated version of Part-M.

comment 582 comment by: *Stepan Rudolf*

Občanské sdružení Charvatce Sever jehož jsem předsedou, po seznámení s navrhovanými dokumenty došlo k názoru, že část M v podobě, která je navržena není použitelná pro rekreační létání . Je příliš komplikovaná, a má nepodloženě a bezdůvodně velké nároky na majitele UL strojů (SLZ). Tato kategorie by se dostala do nesmyslného područí dalších byrokrstických předpisů i přesto, že tato kategorie není určena pro komerční využití. Žádáme aby Part M v navrhovaném znění byl zamítnut.

Navrhujeme použít systém platný v ČR - údržba letadel dle příručky svépomocí s kontrolou ověřeného technika a s pravidelnými technickými kontrolami - obdobné jako u automobilů.

Tento systém u nás funguje již od roku 1989, kdy jsem se podílel na jeho založení a že funguje **dobře** je znát z každodenní praxe.

Jsem připraven Vám pomoci - i v německém jazyce, bohužel ne anglicky - s potřebnými dokumenty a jsem přesvědčen, že i LAA ČR je stejného názoru.

s pozdravem  
Létáme pro radost  
Wir Fliegen für Freude  
Ing. Štěpán Rudolf  
Na Marně 10  
Prag 6  
Česká republika  
tel. 00420 606 642474

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment 586 comment by: *Programme Manager Europe Air Sports*

EAS appreciates the general intention of the Agency and the work members of rulemaking directorate put into this NPA. We hope that General aviation will benefit from the changes to Part M.

As a lot of comments are triggered by national interpretations, different present procedures and a different level of knowledge about Regulation 2042 and Part M, it is difficult for Europe Air Sports to comment all those points.

We therefore request EASA to take the comments which are delivered by member organisations of EAS as complementing comments to our comments and into consideration.

response *Noted*

comment 588 comment by: *DULV*

General Comment: This NPA is grossly lacking in its response to the many criticisms of Part M as it will be applied to the non-commercial GA sector after September 2008.

**TIMESCALE FOR IMPLEMENTATION**

Firstly, the NPA has come at such a late stage in the transition process that

there is not enough time to properly develop the Implementing Rules and their AMC for this information to be passed to the NAAs and industry to allow proper planning and development of procedures and expositions to allow a safe and phased transition to the new arrangements. To precipitate such fundamental changes at such a late stage in the transition process is in itself a safety hazard. To have such uncertainty over requirements and the new procedures at this late stage in the process also creates a number of commercial issues, especially as the extra costs associated with the new regime are so high that many organisations will be unable to move to the new arrangement. From talking to existing maintenance organisations here in the UK it is clear that these uncertainties and the huge extra costs have made any decide not to make the transition to EASA regulation, with the likelihood of there being a serious shortage of approved maintenance capability from September 2008.

**Action Required.** It is essential that EASA postpone the introduction date of Part M until its final configuration has been agreed, has passed through the full consultation process and has been accepted and understood by the industry and the population of aircraft owners and operators.

### **GROSS OVER-COMPLICATION**

Secondly, Part M as it stands, even following this NPA, remains grossly over-complex for the needs of non-commercial GA. Part M is a process with its roots in commercial air transport but it has been driven down onto sectors of aviation which show no evidence of a poor safety record relating to continuing airworthiness and which require such complex measures to resolve. The sector requested that EASA deliver a Part M 'Light' but this has not been done. One can perhaps understand why EASA might not want to develop a wholly new Rule, but would wish to incorporate a 'light touch' within the extant document. However, this has not been achieved by this NPA.

The changes proposed in this NPA have perhaps rounded off some of the rougher edges within Part M, but there has been no fundamental derogation for non-commercial GA from the full rigour of Part M. Even with the amelioration offered by this NPA, Part M remains over-complicated for the needs and safety record of non-commercial GA. There is no safety case for the imposition of this repressive regime and the RIA attached to the NPA utterly fails to elicit any form of safety hazard which Part M must address. More fundamentally, the RIA does not address the huge extra costs associated with implementation of the new regime, and the RIA itself is therefore fundamentally flawed. Many sectors of non-commercial GA have safely managed continuing airworthiness over many decades. EASA has failed to make any form of robust case for dismissing these arrangements and replacing them with Part M. Part M itself remains fundamentally flawed and it is not fit for purpose in the regulation of continuing airworthiness of non-commercial GA.

### **Action Required.**

EASA must withdraw the requirement to impose Part M onto non-commercial GA and establish from first principles a new regime which is fit for purpose. In such an approach from first principles, the true safety issues must be analysed and any proposed Implementing Rule must be proportionate to the risk. At present Part M fails on all these counts.

Your comment relates the category of micro-light aircraft, these aircraft are classified as Annex II in basic regulation (EC) 1592/2002 and are not affected by Part-M and this NPA.

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment 599

comment by: *Fridrich Jan*

Domnívám se, že Part M v navrhované podobě je pro sportovní a rekreační létání nepoužitelný a to z důvodů své komplikovanost a tím neúměrnými nároky na uživatele v nekomerčním provozu. Navrhuji proto aby Part M pro navrhovaný proces ELA – 1 neplatil a místo toho se použil systém založený na údržbě letadel podle schválené příručky pro údržbu a pravidelnými inspekčními prohlídkami. Tento systém používáme v LAA ČR již 15 let úspěšně pro ultralehké létání v ČR a osvědčil se. Na vytvoření takových pravidel pro Evropu jsem připraven se podílet.

Z výše uvedených důvodů nekomentuji zbývající paragrafy navrhovaného Part M, protože to považuji za zbytečné. Nechci aby se používal pro lehké letectví.

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment 603

comment by: *Walter Hayward*

For the life of me I cannot see the validity in proposing a single regime for flying machines from ZERO weight to monsters of 2730 kg.

How do you intend to enforce such a rediculos regime on such thing as deregulated Paramotors etc?

The other anomloy seems to be that I san construct a flying machine (subject to certain criteria) but them cannot carry oput simple maintainence tasks. Who would be better to maintain such an aircraft.. the constructor, or Joe Bloggs who simply has a maintainance ticket, but has never seen such an aircraft.

Most of the proposed rubbish has nothing to do with small light recreational aircraft. but may have some relevance to large multi seat beasts, UNLESS your object is to completely kill off the small aircraft sector.

You imply that the number of airworthyness accidents are the same for all such sectors.. Paramotors, Microlights and other light aircraft.

Rediculous.

response *Noted*

Paramotors, Microlights and other light aircraft are microlight aircraft. Please refer to the answer made to the comment from the European microlight aircraft association comment no 553.

Refer to the different explanations in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment	<p>607</p> <p style="text-align: right;">comment by: <i>Fiala, Vaclav</i></p> <p>Many years ago I studied in Czech Military Academy (specialization on construction aeroplanes). Since 1963 up to the present day fly more than 40 types of aircraft different weighted categories.</p> <p>Now I am retired, but I work like FI in private flight school.</p> <p>If have to do with access to construction of small aeroplanes, belong to rather to conservative people. Nevertheless I think, that Part M in form here mentioned absolutelly is not fit for microlights and sport airplanes. Immense complication progress, mentioned in documents causes undesirable inhibition current development extensive of technical and sport areas.</p> <p>Of many year's standing experience in field of me prompt, that current maintenance system of aeroplanes inclusive regular inspectional visits is for given to purpose suitable.</p> <p>I am ready for cooperate on preparation rules, or their next form in the concrete reminder.</p> <p>V.Fiala,PhD.</p> <p>Except reminder to technical parts I have yet small organization remark: Several tenners years I fly and several years I learn English. Nevertheless I have definite problème with accurate reading some passage of mentioned dokument. Assume, he should was fit of such paper translate to all languages member states of Europe Union. So will not be disadvantaged experts from practice, who now hereto cannot express.</p> <p>V.Fiala, PhD.</p>
response	<p><i>Noted</i></p> <p>When you refer to microlight aircraft, please refer to the answer made to the comment from the European microlight aircraft association comment no 553.</p>
comment	<p>608</p> <p style="text-align: right;">comment by: <i>Royal Aero Club of the UK</i></p> <p>It is essential that the implementation of Part M is delayed to allow:</p> <ol style="list-style-type: none"> <li>1. A proper RIA on the implementation of Part M to be undertaken.</li> <li>2. The MDM.032 Working Group to report its findings in an NPA</li> <li>3. Time for maintenance organisations to implement the changes</li> </ol>
response	<p><i>Partially accepted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>
comment	<p>611</p> <p style="text-align: right;">comment by: <i>Dostal Jaroslav</i></p> <p>simple sad :</p> <p>- to use the proposed - too complicated Part M for sport and recreational aviation means to break and destroy our progress we created during last years and destroy European current advantage opposite to USA in this part of sport flying and business.</p> <p>From this reason I do not recomend that Part M for proposed ELA 1 process -</p>

and recommend to use the maintenance system based on approved (type certificated) Maintenance manual of specific aircraft.

To create that kind of system is the best to create some system - adequate to LAA CR system, we are 15 year successfully using in the Czech Republic .

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As a designer of some ultralights and light sport aircraft ( from which Skyboy and MD3 Rider are type certificated in more European countries and SLSA approved in USA) - and in the same time according to 30 years of my experiences in big aircraft industry development ( 7 years I was Head of Preliminary Design Group in LET Kunovice factory - company producing L-410 commuters, L-13, L33 and L23 gliders and developing that time bigger regional aircraft L610 according to FAR/JAR 23, 25 etc) I think can see that problems from both sides - professional view, recognizable all responsibilities and importance of good airworthiness system for air transport and amateur view - using from my beginning hang-gliders and "fighting" with communist bureaucrats.

By my meaning - to use the same access for light sport aircraft flying like for big aircraft transport was possible to understand in the time, when cold war was here - when government needed to limit personal flights.

The cold war is a lot of years out, but with this access, You build new Berliner Wall - between big aircraft industry and users and between people with free mind, wanted to use aircraft like their hobby . For feeling of freedom, as our challenge to create something new, what can move borders of our mind to the future....

For me it is similar like some other law officers create the law, before You are using Your personal car, motor bike, or bicycle, You need to ask some approved technical station or approved specialists - to make technical inspection - BEFORE EVERY USING.

With this access - we are still using horses for personal transport ( if some officials will not created the law for technical inspection of horses)

By my meaning, system of technical inspections for classic cars is adequate to the system we need for sport aircraft ....

Maintenance manual of all type certificated planes has description what is needed to do, to have aircraft in good condition, and classic checking by approved organization technicians ( in Czech LAA CR specialists ) can make every two years general check of aircraft abilities and safety - like for normal cars using.

Please, if You do not want to kill light sport aircraft industry and destroy advantage, our designers and producers reach during last twenty years, forgot to use practically the same access for Boeing 747 like for sport aircraft, used for sport, fun and recreation.

With similar access we had in Czech not more 10 light aircraft twenty years ago

With actual access of LAA, approved in last years we have thousands of



airplanes and pilots ... - and in the same time we are showing – European designs are better then US ones – like all can see just now.

PLEASE, DO NOT DESTROY EUROPEAN ADVANTAGE WE ACTUALLY HAVE OPPOSITE TO USA :

CONFIRM TO USE APPROVED Amateur associations ACCESS TO AIRPLANES MAINTENANCE, without using of requirements for Boeings and Airbuses for using of our light airplanes.

If not, EU designers and producers will need to forgot Europe and create their products especially for USA or other countries – and pilots, wanted to make some cheap flights for fun – will need to forgot flying in Europe, or to move their planes to USA ... the best including its owners

Thanks

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response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment 612

comment by: *DSvU*

Danish Soaring Association highly appreciates the work done towards a lighter regulation for our part of the aviation industry and we recognize that the work has brought us some of the way.

However our main concern remain unchanged: the proposed part-M will lead to more work, more bureaucracy, more money wasted and, we regret to say, a negative impact on flightsafety.

To have a positive impact on flight safety a regulation must first and foremost be easy to read and be acceptable and reasonably to the user. The proposed Part-M does not meet these basic criteria.

It is, as stated again and again over the past few years, not suitable to apply a regulation like Part-M to our part of recreational aviation given the fact that Part-M was written for heavy aviation performed in big commercial organisations. The attempt to make our part of the industry fit into the regulation only makes it even more complicated and is therefore not meeting the basic criteria mentioned above.

We propose to relight the idea of a separate "Light Part-M" maybe linked to the new EASA-idea of the European Light Aircraft concept.

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

613

comment by: *APAU*

As to Part M's proposal, we (the Portuguese Microlight Association - APAU) consider it to be too complicated and different from our sport and recreational aims. It will turn simple aviation into "bureaucratic aviation," with the forcoming complications for microlight (simple) pilots. So we propose to keep the maintenace system based on the approved Maintenance Manual with the regular inspection checks.

response

*Noted*

Refer to answer made to comment 553 from the European association of microlight aircraft.

comment

614

comment by: *JAR-Contra*

The opinion, as drafted in this NPA appear to make a good groundwork to get started with lighter rules for continued airworthiness for non-commercial aircraft. Many of the rules are far to complex to securely predicate their impact in practice, however. Many rules leave room, especially for authorities, for interpretation in day-to-day usage. Some rules might be not applicable in practice due to cost-considerations.

So, wether the new rules work as expected should be reviewed a few years in the future. Particularly, this review should consider even more simplifications in "paperwork", "bureaucracy" or whatever term you prefer for the work away from the plane.

We support the comments (published in advance) of Deutscher Aero Club (DAeC).

response

*Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

In addition, please note that the work away from the plane, as you refer to, is as important as the work on the plane, because otherwise you hace the risk of not performing all the required maintenance.

comment

615

comment by: *Bob Hood*

Dear Sirs,

I have tried to read through this very difficult and obscurely written document to try and understand exactly what you are proposing. My understanding is that you are proposing to introduce a set of maintenance rules for all light aircraft with an MTOW below approx 2700kgs under the title Part M.

I have no problem with you imposing licensed engineers on heavy metal GA

aircraft, as these already have such a system in place, but I see no need or reason for such a system to be forced onto the lighter end of sport aviation. By this I mean aircraft with an MTOW of around 500kgs or less. Aircraft such as paramotors, microlights (ultralights), powered hang gliders, etc., which for the purpose of brevity I will refer to for the rest of these comments as 'micros', have happily existed and flown safely for the last 30 odd years without such a formalised system, and there has never been a safety case to warrant its imposition. I therefore would like to register my dismay and total disapproval of your petty minded bureaucracy in wanting to introduce completely unnecessary and ultimately detrimental rules to the maintenance of the above mentioned micros.

A suggestion has already been made that the 'one size fits all' approach is not appropriate in this situation. I would like to state that I agree, with such a statement. You cannot impose the same rigid formalised maintenance regime on micros as you can with heavy metal GA type aircraft without causing huge disruption to this delicate sector of the aviation market. Needless expense, totally unnecessary paperwork, and what I am certain will be a completely unworkable formal maintenance system will alienate many aspiring sports pilots. Your proposed system of having to use licensed engineers to perform maintenance work that can easily, safely, and cheaply be performed by the aircraft owner/pilot can only have a negative affect on the growth and development of the micro market.

The net result of forcing a licensed and formal system of maintenance onto a reluctant sport flying fraternity will be a huge rise in illegal flight. Details of home performed maintenance will not be reported in the aircraft's log book, as to do so would render the owner/pilot guilty of breaking the rules. Instead aircraft will end up with two log books. The formal one which will just show tasks carried out by licensed engineers, and another one which will show all the illegal maintenance carried out by the owner/pilot. This latter book will be the one that prospective owners of used aircraft will want to see, not the rubber stamped formal one that officially releases a micro for flight.

So please reconsider your ill thought out and ham fisted approach to light aircraft maintenance, and leave things as they are at present for aircraft with an MTOW of around 500kgs or less. The added cost, increased complexity, mountains of wasted paper, and endemic delays brought about by what will be a permanent shortage of suitably qualified engineers, will inevitably have a very detrimental affect on the whole of the sport aviation market. However, the sector that will be hit worst is the sector you claim you are trying to help, the micro market. Typically the owner/pilots of these aircraft cannot afford to fly heavier metal aircraft, and will be forced to give up sport flying altogether if high maintenance costs are forced upon them. This will lead to severe financial loss for many aircraft manufacturing companies throughout Europe, and may lead to many of the smaller companies closing down altogether. This in turn will stifle innovation, and reduce the European share of light aviation in the World market, to the detriment of us all.

response *Partially accepted*

This NPA do not change the status of micro-light aircraft which remain under the oversight of the national competent authority.  
Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment	<p>618 comment by: <i>Fédération Française de Planeurs Ultralégers motorisés</i></p> <p>Looking at the continual decrease of general aviation activities all over Europ, the EASA had begun a full rewriting of the rules for light and non complex aircrafts.</p> <p>This work was conducted by the MDM 032 group and will produce two new categories ELA 1 and ELA 2.</p> <p>The FFPIUM strongly encourage this work. But it appear that if the airworthiness part of this futur regulation had been conducted with a real creativity, the maintenance proposals are common with the heavier aircraft rules with only some exemptions for self maintenance in the so call « non vital matters »</p> <p>The French accidents statistics for homebuilt aircrafts and microlights where maintenance are under the full responsability of the owners demonstrate that an heavy maintenance system had nothing to do with the general safety level of those activities.</p> <p>We believe that EASA must have followed the same white sheat paper principale that the one's they have used for the creation of the new airworthiness and pilot licences ELA 1 and 2. The amendments to Part-M for aircraft not used in Commercial Air Transport is far from responding to the level of lightening needed for those new non complex aircraft categories</p> <p>As we and all the representative european user organisations had allways asked for, we urgely encourage EASA to follow the same creative process as for airworthiness and licences matters and work on a real « light part M » for ELA 1 and 2.</p> <p>To allow that it is very important that the the proposed implementation date for Part-M of 28 September 2008 should be delayed until the final results of the MDM.032 Working Group and the associated NPA have been concluded.</p>
response	<p><i>Partially accepted</i></p> <p>This NPA doesn't change the status of micro-light aircraft which remain under the oversight of the national competent authority.</p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>
comment	<p>621 comment by: <i>SOLTYS Vitezslav</i></p> <p>Z výše uvedeného je zřejmé, že Part M tak jak je navržen, je pro sportovní a rekreační létání a pro ultralighty nepoužitelný . Je neúměrně komplikovaný a klade zcela neadekvátní nároky na uživatele v rekreačním, sportovním a nekomerčním provozu. Navrhuji proto aby Part M pro navrhovaný proces ELA – 1 neplatil. S úspěchem lze použít systém založený na údržbě letadel podle úředně schválené příručky pro údržbu v kombinaci s pravidelnými inspekčními prohlídkami, tak jak to LAA ČR již 15 let úspěšně provádí pro ultralehké létání v ČR. Tento systém se plně osvědčil. Jistě by se v ČR a v LAA našlo dost odborníků, kteří by pomohli s přípravou takových pravidel s možností aplikace v celé Evropě.</p>
response	<p><i>Partially accepted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>

comment	<p>642</p> <p style="text-align: right;">comment by: <i>DTruempi</i></p> <p>Attachment <a href="#">#1</a></p> <p>This EASA regulation concerning Maintenance and airworthiness is for the behalf of airports overregulated and absolutely out of needs and problems of this branch of aviation. It may be usefull for commercial aviation and air transport, but not for the sport- and hobby-orientated aviation. Airports ist operated by citizens, who have there plesure and satisfaction by flying an powererd aircraft, glider or balloon. They are organized in clubs and are engaged in a voluntary manner to maintain there recreational interests.</p> <p>This absolutely new and oversized bureaucracy will kill (or at least damage) airports. The costs will increase rapidly, more professionals are neede and at last nobody will be engaged in the clubs.</p> <p>EASA regulations like Part M. will produce a big bunch of paper but can never (or marginal) increase safety in recreational aviation. What we need are self dependent pilots and owners and not functionaries who are satisfied when the have fulfilled and signed there papers.</p> <p>Sorry about this hard commet, but after 30 Years in airport I afraid really that we will go in the wrong direction!</p>
response	<p><i>Partially accepted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>
comment	<p>652</p> <p style="text-align: right;">comment by: <i>Fédération Francaise Aéronautique</i></p> <p><b>GENERAL COMMENT:</b></p> <p>France set up a transition system by a ministerial decree published in October 2006. It allows the current maintenance organisations, working under national regulation, to postulate by anticipation and in a voluntary basis to a conversion conforms to "reviewed "Part M" provisions for light aircraft.</p> <p>To date, only some of our members have registered conversion file. Indeed, in spite of our permanent efforts to give objective information, we have a real difficulty to convince our maintenance organisations to voluntarily go forward with a step that they do not understand.</p> <p>These organisations ask many questions about the process coherence. They would need to be able to refer to a clear regulatory and final text, to have a global vision of the process.</p> <p>For the first time a NPA presents a coherent whole of specific proposals. Even if we approve main points, this process is only a first step. As soon as possible, we are waiting for the definitive text and we hope that it will not be too far from this NPA.</p> <p>Taking into account these arguments and authority materials means available, we are convinced that a period of transition clearly definite and adapted to the real situation is necessary. In all cases, when organisations currently under national rules with 3 years cycle, would make an approval request for Sub part F and for Sub part G, with privilege I, before September 28, 2008, at this date limit fixed by Agency, it seems impossible that all organisations could be approved.</p>

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During the Köln workshop on July 4 and 5 2007, it was referred to the rule known as the "grandfather rights". This mention has not been accompanied by a clear comment which would have avoided confusion generated by various interpretations.

On this precise subject, we questioned the Agency's representative on September 6 in Paris during one's public presentation. We noted his explanation, but we insisted to urgently have a clear written explanation. Up to now, nothing was received.

Whatever the transition provisions retained, we want to point out that any discontinuity in the activity of our maintenance organisations, during the transition from the national regulation to the European regulation, will not be accepted by our Federation.

We suggest the following: it would consist to authorize all organisations already entitled by the present national system, to ensure aircraft maintenance on a 3 years cycle basis and, those which have already made "F + G + I" approval request before September 28, 2008, to extend the ARC validity on a purely provisional basis for aircraft for which they already have the responsibility, and that, up to the complete delivery of their "F + G + I" organisation approval.

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment *660*

comment by: *Adolf Flüeli*

**general item for general aviation and commercial aviation:**

solutions shall be effective but also efficient and cost effective

EASA has great opportunities creating ! and using economies of scale regarding

- general setup for 21st century's needs
- methodology and standardisation
- lean and appropriate process setups
- use of new technologies (ICT)

(for example by configuration management over internet using manufactures database)

response *Noted*

comment *661*

comment by: *John GIDDINS*

Dear Sir,

I am extremely concerned with the unreasonable conception and enforcement of the above NPA 2007-08 Part M and the effect it will have on owners and operator of gliders in the UK

The implementation of this change affects majority of the gliders in the UK which have to conform to the same documentation and enforcement as a large passenger aircraft

No rustication exists for these change

They will NOT improve flight safety

They will NOT improve aircraft reliability There is no justification for these changes which will effectively reduce the servicing facilities in the UK and dramatically increase the servicing costs of glider which are likely to stay on the ground trying to meet these un reasonable requirements

EASA should have had, if they had to make a change, implemented a special class of aircraft up to 1000kg

John Giddins

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

662

comment by: *Max BACHMANN*

Ladies and Gentlemen,

Due to unsolved problems with CRT, I am using above adress ( I am registered ,13. oct. 07).

I read in the Treaty of Amsterdam 1999:

Article 29.

The Conference emphasises the social significance of sport, in particular its role in forging identity and bringing people together. The Conference therefore calls on the bodies of the European Union to listen to sports associations when important questions affecting sport are at issue. In this connection, special consideration should be given to the particular characteristics of amateur sport.

Article 38.

Declaration on Voluntary Service Activities.

The Conference recognises the important contribution made by voluntary service activities to developing social solidarity. The Community will encourage the European dimension of voluntary organisations.

I read in the Nice European Council Meeting 2000:

Sporting Activity should be accessible to every man and women, with due

regard for individual aspirations and abilities, throughout the whole gamut of organised or individual competitive or recreational sports.

Those genuinely splendid ideals are in real danger when looking in the overwhelming Regulations by EASA/EU. Without effective intervention, the chances are that gliding competitions as we know today could become impossible in Europe within short period of time. As a glider pilot, I say, that's the way to kill the sport of gliding.

The guiding principle for the transfer of governance from national authorities to a European authority should be: what is permitted and conducted safely today in individual countries should continue to be permitted under the new regime.

When we get bogged down in renegotiating with the European authorities the terms on which we will fly in future, we need to keep reminding ourselves that everything was perfectly OK under the old rules. There is actually no intrinsic case for change. Up to now, we have been able to get on with our flying without undue risk to third parties, and within a sensible and proven (albeit not unified) regulatory framework. Everything that is happening now is not happening at our request or for benefit. As is so often the case with changes that have the potential to rot up the lives of ordinary people, the root cause is political. All this is happening because politicians want to change the map of Europe.

Europe Air Sports represents about 700`000 pilots and other airspace users of 26 European Countries. The EAS President, Sir John Allison, former Royal Air Force Air Chief Marshal, Commander in Chief of RAF Strike Command, has expressed in different Speeches our needs to secure a regulatory environment in Europe that enables a safe, and an operationally, socially and economically acceptable development of air sports and recreational aviation in and across the member states. We need simple rules, for the benefit of our sport community as well as for the regulatory bodies. Needlessly and complex bureaucratic hurdles are increasing operating costs extremely.

Sir John Allison is still an active pilot, he spent his whole life in an aviation environment, he knows what he is talking about, it is worthwhile to read his speeches.

Best regards.

Max Bachmann

response

*Noted*

Refer to the different explanations in Attachment 1 to the CRD in paragraph GENERAL ISSUES, and to the consolidated version of Part-M at the end of the CRD.

comment

663

comment by: *G Jones*

Sirs,

Having scanned through 144 pages of this gobbledegook I am little the wiser, although I see that I will be allowed to change the air conditioning hoses on



my glider (!). Presumably NPA No 2007-08 represents a great deal of work by people paid from the public purse. I think it would be much better if they were receiving unemployment benefit instead, in which case there would be no pretence that they were doing anything useful.

Gareth Jones

response

*Noted*

The intent of this NPA is to alleviate the rule for general aviation from the initial Part-M. Not accepting the NPA would render Part-M applicable in its entirety, which does not seem to fit with your opinion.

As you probably know, ATA 21 includes not only "pressurized air conditioning systems" which may not be applicable to sailplanes, but also "ventilation systems". So, this item was included in order to allow replacement of flexible hoses and ducts for those "ventilation systems".

The inclusion of this item was specifically agreed by the Working Group developing the NPA, which included experts from EASA, Competent Authorities and the General Aviation community.

comment

664

comment by: *G Jones*

Concerning EASA NPA 2007-08 Part M This document is an bureaucratic nightmare and not completely inappropriate for non-commercial small aircraft operations. Please refer to comments from the UK BGA and others a detailed critique.

response

*Noted*

Refer to the answers made to BGA comments.

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment

665

comment by: *Flugwerft Biberach*

Betr.: CAMO – Vortrag beim LBA Braunschweig am 09.10.2007

Sehr geehrte Damen und Herren,

dankenswerter Weise wurden ca. 35 Luftfahrttechnische Betriebe / Luftfahrtunternehmen vom Luftfahrtbundesamt in Braunschweig über den Fortschritt einer CAMO und deren Auswirkung auf die zivile Kleinfliegerei informiert. Nachdem wir 24 Stunden über dieses Thema geschlafen haben kommen wir als Flugwerft Biberach zu der Überzeugung das ist ein Irrweg. Das geistige Gedankengut der EASA scheint falsch programmiert und das ist positiv gemeint.

Als Part 145 Betrieb werden von uns ca. 200 davon ca. 70 verschiedene Flugzeugtypen betreut, unter 5700 kg und Flugzeuge bis 2730kg zur Zufriedenheit unserer Kunden und dem LBA.

Kleinflugzeuge im nichtgewerblichen Verkehr bis 2730kg sollten komplett Annex II

zugeordnet werden und den nationalen Privilegien unterliegen.

Dieses Europa der Fliegerei ist so nicht gewollt. Nicht von Piloten, Haltern und nicht

Von nationalen Behörden und Luftfahrttechnischen Betrieben.

In einem funktionierendem System ist diese Attacke auf die Fliegerei ein wirtschaftliches Desaster und wird die Fliegerei dezimieren, der Aufwand ist sozusagen verbranntes Geld Und wird wirtschaftliche Folgen haben. Hinzu kommt dass Fluggerätemechaniker die jahrelang einen guten Job vollbrachten sich einer Anerkennung erwehren müssen um mit einem Mechaniker gleichgestellt zu werden der mit 3 oder 5 Modulen und einem Jahr Luft der Reifen prüfen, gleichwertig abgewertet wird.

Bei allen ihren Entscheidungen bedenken Sie bitte dass in Deutschland über Jahrzehnte die jungen Leute eine sehr gute flugzeugtechnische Ausbildung erhalten haben und nicht in einer Monokultur von Luftauffüllern enden sollte. Korrigieren Sie dieses Potenzial nicht nach unten, erhalten Sie der Fliegerei die gesamte Instandhaltung eines Betriebes und Sie werden begeisterte junge Menschen finden die diesen Job ausüben möchten.

Nationale Privilegien sollten nicht leichtfertig aufs Spiel gesetzt werden.

Mit freundlichen Grüßen

FWB Flugwerft Biberach

Walter Gockenbach

response *Noted*

A certain number of aircraft types are already classified in Annexe II, which continue to remain under national regulation, and micro-light aircraft are among those. There is no intention of the Agency to modify this rule.

The existence of national qualifications is recognised by the rule, as according to Part-66, the person holding a national qualification may be granted a Part-66 licence.

For all other remarks, please refer to the different explanations in Attachment 1 to the CRD in paragraph GENERAL ISSUES, and to the consolidated version of Part-M at the end of the CRD.

comment

8

comment by: *Ian Wilson*

I feel that the level of maintenance permitted by this NPA is beyond the level of training and competence of the majority of private pilots/owners. It is even above the level permitted and expected from a CatA mechanic and he is at least subject to supervision and has had formal initial training and continuation training to an appropriate level, this is not the case for a private pilot/owner. It is not enough to say that a Pilot is expected to fly the aircraft and thus will have a vested interest in correct application of inspections and repairs as it may well not be the pilot who suffers in any subsequent flying accident or incident, and the number of reported accidents and incidents where private pilots/owners have failed to correctly inspect or prepare the aircraft for flight is proportionally far higher than in the realm of Commercial flying.

response

*Not accepted*

1) The Term of reference of M-005 was not to challenge the existence of the pilot owner maintenance in accordance with Part M Appendix VIII but to improve it.

Additionally, the concept of pilot-owner maintenance is not new: sufficient experience in various European and American countries demonstrates that no significant reduction of safety level exists.

Paragraph 57 of the NPA explanatory note gives additional elements: records of accidents and incidents were scrutinized and no statistics show critical information on cases where maintenance was badly performed by any pilot-owners involved.

2) The list (Appendix VIII of Part M) has been compiled to exclude safety critical items and no current evidence exists to support that self assessment would produce accidents caused by Pilot-Owner Maintenance. Assessment of a pilot-owner's competence by a maintenance organisation or a licensed person or NAA was considered to be unjustified when compared against the perceived safety benefit

In addition, as described in M.A.201 (a) & (c), the owner remains responsible for the maintenance tasks performed.

Refer also to paragraph 64 of the NPA explanatory note where additional elements to the assessment of the pilot's capability are given.

3) The other part of the comment shows a mis-understanding of the pilot-owner maintenance concept which is also based on the fact the pilot-owner may be the one who is going to fly the aircraft just after maintenance task have been carried out. The pilot is therefore responsible and no statistics permit to reduce considerably the tasks or repeal this concept.

4) Pilot licence versus maintenance licence

Refer to comment n°273

§4.2.1.1 of ICAO annex 1 refers to the maintenance licence although the pilot owner maintenance concept is based on the pilot licence. It is also limited to aircraft below 2730kgs.

The pilot licence remains a pilot licence and does not become a maintenance licence. The pilot licence just gives privileges to the pilot to carry out limited maintenance tasks on the aircraft that he owns; a maintenance licence may give privileges on any other aircraft of the same category.

comment

201

comment by: *Michael-Fortescue*

Please take this as Comment on all sections in the relevant document.

Nothing in the safety record of light, unsophisticated, General Aviation private aircraft in those parts of Europe where such private operations have been common (i.e, Western Europe since the '40s, Eastern and Central Europe since the '90s) justifies the extra bureaucratic burdens outlined in these proposals. Neither the aviation community (the pilots/operators of these aircraft and their passengers) nor the general European public over which they fly would be imperilled by abandoning all such proposals in relation to aircraft of Maximum Take-Off Weight of two tonnes or less. The certification (from new/importation into the EASA area, and continuing thereafter) of maintenance and associated record-keeping requirements should, rather, be further relaxed. It should match or resemble that allowed to uncertificated (eg, amateur-built or microlight) aircraft in countries like the United Kingdom. There, oversight delegated by the national authority (the Civil Aviation Authority) to amateur organisations has led to a safety record as creditable as that of similar fully-certified types (even those maintained to Public Transport standards, as Flying School and Club aircraft in the U.K. have had to be). The delegation by EASA of oversight of such maintenance, including of requirements for associated record-keeping, to such amateur bodies (which could be national or pan-European) would save EASA a great deal in time, documentation, travel and staff costs.

If these proposals were adopted in full, most private owners would be faced by a massive increase in costs (payments to large Part M organisations either for maintenance work formerly done, quite adequately, by small organisations or by private owners, or for bureaucratic oversight of such work). Many owners would cease to fly, or turn to less regulated types like amateur-built aircraft or microlights. The result would be the demise of large numbers of small organisations at small airfields, and a loss of effective competition at large ones; only the biggest organisations, at a few large airfields, would survive. Many jobs would be lost, both at these small maintenance organisations and at the currently flourishing and growing light aircraft factories in many parts of Europe, as their potential buyers ceased to be able to afford to operate any, let alone new, aircraft. But there would be no safety benefit to the operator/pilot nor the wider public. Meanwhile, the reduction in operation of light aircraft would run contrary to one of the founding principles of the European family – the free movement of individuals within its borders.

response

*Noted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of the CRD.

**A. EXPLANATORY NOTE**

p. 3

comment	<p>291</p> <p style="text-align: right;">comment by: <i>Jeff Thomas</i></p> <p>It is quite clear that this is a heavy handed regulatory system which is completely unsuitable for sport aviation.</p> <p>Sport aviation including home built aircraft has a safety record as good as that currently generated by much heavier general aviation with stricter maintenance regimes, and achieves this with less complexity and less expense than the system now being proposed.</p> <p>The existing system of devolving airworthiness and maintenance responsibility for light aircraft and permit to fly aircraft owners ie those who have the greatest interest in maintaining their aircraft in a safe and airworthy condition should be preserved and the new proposed system rejected for sport and light aircraft</p>
response	<p><i>Partially accepted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>
comment	<p>493</p> <p style="text-align: right;">comment by: <i>mikecuming</i></p> <p>I have seen the response by the British Gliding Association. This seems to me to be a very well-reasoned argument and I fully support the comments made by the BGA. I have added some further comments of my own as well.</p>
response	<p><i>Noted</i></p>
comment	<p>641</p> <p style="text-align: right;">comment by: <i>Microlight section of Norwegian Airports Assn.</i></p> <p>Continuing airworthiness activities for certain aircraft included in Annex II may be undertaken by the pilot/owner. Indeed, in the case of homebuilt aircraft the entire construction from raw material may be undertaken by the pilot/owner. In many countries such aircraft may be used in limited commercial activity.</p> <p>Where comprehensive accident statistics on such aircraft are available, for example from countries such as Canada, France and the UK, it is clear that the level of airworthiness-related accident for such aircraft is very low and, in any event, not significantly higher than for aircraft for which maintenance may not be carried out by the pilot/owner.</p> <p>On the basis of the above and initial discussions with EASA staff it was anticipated that EASA would broaden the range and extend upwards the MTOM of non-complex aircraft which could operate under a similarly relaxed regulatory regime from 450 kg to 600 kg, 750 kg or even 1000 kg. It was anticipated that the output of the MDM.032 Working Group would provide the input to deliberations relating to continuing airworthiness regulations in this respect.</p>

Instead, the amendments to Part-M for aircraft not used in Commercial Air Transport imply no such change and the proposed implementation date for Part-M of 28 September 2008 allows neither the deliberations of MDM.032 nor the input from the associated consultation process to be taken into account in the proposed regime for ongoing airworthiness.

**At the very least the implementation of Part M for sub-1000 kg aircraft should be delayed until the final results of the MDM 032 Working Group have been delivered and the comments resulting from the associated NPA have been analysed.**

response *Partially accepted*

In answer to your comment on microlight aircraft, please refer to the answer made to European microlight aircraft association in comment no 553.

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

## A. Explanatory Note - I. General

p. 3

comment 215

comment by: *Sarah Kelman*

As the owner / operator of a glider which is soon to be deemed EASA under the regulation change, I am horrified at how complex and potentially dangerous the increased regulation is becoming. The minefield of new paperwork and regulation is rapidly spiralling out of control.

Although I appreciate the need for European legislation, it is inappropriate to inflict such draconian requirements on gliders. There is a real risk that maintenance will be compromised rather than enhanced as owners of these simple craft either choose to stop flying altogether, or, more importantly, through a misinterpretation or lack of understanding of the requirements, they permit their aircraft to fly illegally and so invalidate insurances.

The document shows no understanding of the significant differences in maintaining a pure sailplane and that of a light piston single with the complexities of the engine and it's subsidiary systems and reliance thereon.

response *Partially accepted*

Refer to the different explanations in Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment 317

comment by: *Hermann Spring*

### **1. Scope**

-

These comments are from hangar floor, as well as from the engineering office and from the cockpit from an individual who has more than 30 years

experience in the general aviation.

The memo considers mainly general aviation aircraft below 2730 kg MTOW, outside commercial air transport but includes sightseeing flights.

## **2. General Remarks**

-

I do support the basic principle of EASA, but oppose the way of Part-M introduction for all aircraft.

Following human factors should be always considered:

To convince people to do something needs pressure or motivation. Motivation is the much more efficient way especially for long term achievements.

## **3. Main Concerns**

-

Expanded analysis to identify possible safety improvements related to the proposed maintenance system are missing.

Expanded analysis to identify the impacts resulting from the idea to invalidate foreign maintenance releases is further missing very important item.

Comparison between present and future situation including safety and commercial aspects are not available.

The practical experts from the hangar floor were not adequate involved, they are not understanding the change nor to they support it in the foreseen manner.

## **4. Discussion**

-

### **4.1. Reason and way to change**

Never change a winning team or do not fix what is not broken. Changes are always inadvertently introducing new problems.

The average age of the general aviation fleet is more than 25 years old, the design and the initial certification maintenance instructions older than 30 to 40 years.

The existing safety level was achieved mainly based on service experience.

EASA considers changing the base line of this service experience. This was initiated without an exhaustive analysis of the impacts and without the perspective to achieve an increased level of safety (answer from an official EASA presenter).

It is out of all reason to propose such a radical change for the general aviation without fundamental analysis and serious discussions with the stake holders!

#### **4.2. No more accepting FAA**

The designs of and documentation for older aircraft do not match EASA part-M requirements.

In addition there are many manufacturers/suppliers of spare parts and overhaul facilities for these aircraft outside EASA regime. It is obvious that their system – developed, continuously improved and established over decades - must be somehow validated by EASA.

If EASA does no longer accept to the FAA systems, the total data package from certification and maintenance has to be completely reissued under EASA.

It is hard to understand, how EASA would accept an Airworthiness Directive (AD) which is developed and published under FAA rules, but not accept the FAA maintenance procedures which are part of such an AD.

Some Maintenance Manuals call for AC43.13 to be used for repairs, but EASA does not accept AC43.13. What would be accepted and what no more?

How shall spare parts be handled, which are manufactured under FAA approval only, and subsequently receive a FAA maintenance release? Who resolves all these conflicts?

The total consequence would be that either **all** FAA certified Organisations need an EASA approval as well, or every single paper and part has to be designed and manufactured under EASA as well.

How would EASA approve an FAA maintenance manual, but not the described procedures which are required issuing the (FAA) maintenance release?

It would require a total duplication of the FAA world.

#### **4.3. The way out of the conflict**

Why could not the grandfather rights get accepted until the end of life?

This should be possible, if all aircraft types below 2730 kg MTOM operating under Annex II.

A safety board shall be formed, where all stake holders are participating for developing simple non cost driving safety enhancements for the general aviation, these especially for old aircraft designs.

Participation of the people involved right from begin should result in a motivation to maintain and improve the high level of safety in the general aviation maintenance (including the gliders).



Insurance companies should be taken on board as well, as they could motivate with a bonus system for all positive safety contribution.

As the accidents in the general aviation are mainly pilots related, a close cooperation with the pilots has to be considered. Some operational accidents could be avoided with new or improved systems, and also by modifying (enhancing) old aircraft systems.

I consider under these improvements, collision (and weather) warning system, improved navigation systems, visual (and audio) low pressure and low fuel warning etc. There are much more, but this shall show the direction of the proposed approach.

A smart approach with minimum formalities must be chosen, this would not increase the costs and the focus could remain on the real safety issues.

Any involved party shall contribute actively for real improvements and adding value.

### **5. Conclusion**

-

Refusing the acceptance of the FFA approvals and their documentation means that everything needs to be totally new developed. This is in my opinion an impossible approach.

An all day meeting having such a high level of experts together shall never ever spend a day like the 28<sup>th</sup> of August 2007 in Zürich, without having received one single idea of safety improvement. It should be mentioned, that the forum was representing > 100'000 flying hours as pilot and > 1000 years successful maintenance experience.

This huge capital of know-how was present, and for sure willing to contribute, but simply not asked.

Moving all aircraft below 2730 kg principally to Annex II and/or delay the introduction of part-M for at least another 5 years shall be envisaged with no further delay.

Using the knowledge of human factors, shall be considered to establish a culture of cooperation and motivation, to maintain and improve the general aviation safety in all concerns.

EASA would be held responsible for all incidents and accidents resulting of breaking existing proven procedures. Such risks are increasing as faster and as more extreme changes of proven system are implemented.

Safety first means check and analyse properly prior to any change.

response *Partially accepted*

Refer to the different explanations in Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of the CRD.

comment

492

comment by: *mikecuming*

I have a number of comments to make which are probably best grouped together.

1 The cost issues are very high for sport aviation and especially gliding. It is unreasonable to introduce such a high level of cost without subsidy. Bear in mind that there is no technical justification whatsoever for any of these changes. The harmonisation of European regulations is not welcome and without doubt the current activity will increase the cost without any impact at all on standards or safety - exactly the same as has happened with PICO licensing in fact.

2 It is implicit that the document FAA AC 43-13 is not an approved source of reference data, solely because it is a US document and not EU. This is ridiculous. The reference is excellent and in wide use, why not use it.

3 component maintenance proposal. This is impractical and unenforceable. If we really must have some rules here then please can we have some which can actually be applied in the real world, not just on planet EASA.

4 parts maintenance. Again, impractical and impossible to enforce. This needs to be revised or dropped.

5 pilot/owner maintenance. This is OK - and welcome - but the list of approved tasks is unreasonably short. The list of approved tasks needs to be expanded.

6 subpart F and G?

response

*Partially accepted*

For items 1) through 4) refer to the different explanations in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

5) Pilot owner maintenance

Rejected:

The list (Appendix VIII of Part M) has been compiled to exclude safety critical items otherwise the competency would have to be assessed and recorded by competent bodies. It would have been also costly.

Assessment of a pilot-owner's competence by a maintenance organisation or a licensed person or NAA was considered to be unjustified when compared against the perceived safety benefit.

This is why it has been decided not to extend the list beyond the existing proposal of this NPA.

When reading this document, it appears that some commenters state that in general, the extension of the list is a reasonable compromise.

comment	656	comment by: <i>Adolf Flüeli</i>
	<b>Page 4 &amp; 5</b>	
	General explanations and Background information General explanations and background informations shall be made (similar to the good expressions within the process-view of rulemaking) additionally also in the process-view of maintenance & overhaul to ensure the endusers understandig of the background and the aim of the paragraphs and also give some context information to clarify the coherence.	
response	<i>Noted</i>	

**A. Explanatory Note - III. Comment response document**

p. 4

comment	16	comment by: <i>Ted Norman</i>
	This comment response tool is too complicated for normal members of the public who are not computer literate. I have been working with computers since 1979 and it has taken me 25 minutes to get to this point.	
	Is it a device to ensure that only people with IT degrees can influence EASA?	
	Europea has a bad enough reputation without this sort of ill thought out system. Was it tested with some members of the public?	
response	<i>Noted</i>	
	We can assure you that our intention is not to make it more difficult for public to give comments to our consultations. During development the tool was also tested by a group of public users and several changes were made as a result. The aim of the CRT is to inform users whenever a new NPA is published and to automate the consultation process so that we can produce the Comment-Response Document (CRD) in a timely manner. As the CRT is still a relatively new application we are continuously improving it and would welcome any feedback you have on the user guide and on the functionalities to increase user friendliness.	

comment	212	comment by: <i>Armageddon Associates</i>
	This response to the NPA is from Barry Tempest FRAeS of Armageddon Associates. A General Aviation consultant and a council member of the UK Historic Aircraft Association (HAA).	
	The HAA council has requested me to make this response on behalf of the membership of the association.	
	It represents the sincere views of myself along with those of a highly experienced aeronautical maintenance engineer with a working lifetime spent in both the Royal Air Force and the civil general aviation world in senior	

appointments.

My own views have been influenced by in depth reading of successive drafts, attendance at seminars in the UK organised by both Europe Air Sports, through the Royal Aero Club of the UK, and EASA itself. Finally I attended the conference at the Royal Aeronautical Society in September 2007 where the top management of EASA formed a panel to present their views on how their organisation was evolving and to receive questions from those who were there.

The stated intentions from Eric Sival gave me some reason to hope that this NPA consultation process might influence favourably the eventual outcome providing general aviation as a whole made an effective response to the NPA.

I was also appreciative of his statement that suggestions for improvement to the response procedure would be welcome since they wanted it to be as "user friendly" as possible. My initial reaction to that is that I found it to be quite the most "user unfriendly" method of responding I have ever encountered. As I became more adept in the process my views altered, but only by a fraction.

The stated aim of EASA, given at the RAeS conference in London, is to enable all the citizens of the EU to feel able to respond to any aspect of EASA policy or rulemaking published. This if they feel it affects their lives in any shape or form. I submit that the process, as it exists, is going to deter all but the most persevering individual, organisation or association from doing just that. IT MUST CHANGE if EASA is to meet its stated obligations to those of us in the EU.

This is my first opportunity to use the PC internet based common response tool and it will not be my last. If I had been less motivated I would never have started in the first place.

It will be interesting to see the number of responses made to this NPA compared with the number of those submitted on MDM032. My feeling is that the numbers will be down by a huge amount, possibly in the order of 90%. I await the actual figure with keen anticipation.

Your task of analysing the responses and preparing the CRD may well be easier. The publication of the CRD sooner. But have you actually received all the sincerely held suggestions you might have done with a more "user welcoming" system. I think not.

response *Noted*

We understand from the comment that it is sent on behalf of the HAA, an association for historic aircraft.

It is the opinion of the agency that the NPA has not been well understood, as it intends to amend a regulation which does not affect Annex II aircraft, which is the case of historic aircraft.

Refer to the different explanations in Attachment 1 to the CRD in paragraph

GENERAL ISSUES and to the consolidated version of Part-M at the end of the CRD.

**A. Explanatory Note - IV. Content of the draft opinions and the draft decision**

p. 5

comment

204

comment by: *George Rowden*

Page 6 Para 12.

Comment Text.

NPA 2007-08 EASA endorses the regulatory approach of "one size fits all" based on the criteria that this is the most effective way forward from the point of view of the regulator. However, such an approach significantly compromises the proper and effective functioning of the GA/light portion of sport aviation. This approach is also at odds with the widely held industry view that any such regulation needs to be relevant to the differing parts of the industry. In short, proper, effective and relevant regulation that satisfies the safety requirements of the users should be the basis for any regulation, not beaurcatic ease.

The above approach is being taken by EASA Group MDM032 in their deliberations related to European Light Aircraft where safe operation remains the responsibility of the owner. To impose a requirement to involve professionally licensed organisations working within a series of very detailed procedures would creat great cost and hardship on private aircraft owners. This is particularly the case for glider pilots who currently operate in an existing de-regulated environment that historically has resulted in safe flying.

To impose the prescriptive approach formulated in this document while a more relevant and effective approach is being developed by EASA Group MDM032 cannot be justified. Accordingly, a delay in the implementation of this NPA should be delayed pending the conclusion of EASA Group MDM032's conclusions. At this point, the relative benefits of the two approaches in terms of safety effectiveness versus cost and complexity to the users should be compared.

Reason Text

Light/sport/GA aviation has for a long time been subject to a much less beaurcatic system of regulation than proposed in this NPA. Further, there is no evidence that this lighter system of regulation was ineffective or unsafe.

This NPA significantly complicates the relevant regulations without any evidence that such complication will enhance safety. Further, the additional cost and complexity of the proposed regulations are significant and an unnecessary additionalburden on the owners of light aircraft and the regulatory bodies.

response

*Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

307

comment by: *peter GRAY*

Paragraph 12 demonstrates a regrettable disregard of expert opinion in favour

of easing the task of the rule makers. The principal here outlined mitigates against a light regulatory touch for GA/Sporting aviation in that amendments to a set of rules will inevitably reflect those rules, whilst what GA/Sporting aviation needs is a significantly different type of regulation.

This decision seems to curiously disregard the efforts of the working groupMDM032(ELA)

response *Noted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment 557

comment by: *Programme Manager Europe Air Sports*

EAS welcomes the list of changes to Part M as written on page 5, IV, A Background Information, 9.

Nevertheless, EAS proposed some additional changes during the work within M.017 which were partially incorporated in the NPA but those not incorporated will be repeated in this consultation.

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

**A. Explanatory Note - IV. Content of the draft opinions and the draft decision  
- A) Background information**

p. 5-6

comment 10

comment by: *SAMA Swiss Aircraft Maintenance Association*

Section 12: The reasons for rejecting a separate "Part M light" are rather formal, rulemaking considerations. SAMA thinks that rules - particularly safety related ones - should first of all be easy to understand by the addressees. This is an essential precondition for their meaningful application by personnel, organisations and NAAs, even more important in the case of GA, where generally less capacity can be dedicated to formalities. Although SAMA agrees that rules should not be duplicated, the concept proposed leads to the fact that everyone has to consider both versions of the rule, irrespective of the sector he is working in. The proposal may perhaps be easier to handle by the rulemakers, but it is in no way easy(er) to understand by the addressees. We ask EASA to reconsider this proposal, also under the 'impact on safety' aspect.

response *Noted*

Refer to the different explanations in Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of the CRD.

comment 31

comment by: *BGA*

IV A) 12 on Page 6

The bullet points fail to identify that the quoted proposals by 'most of industry'

for a separate Part M (light) were in part based on the need to recognise that Part M cannot efficiently fit the sub 2730kg continuing airworthiness environment which for reasons of safety must remain uncomplicated, that individual engineers can be trusted and that air sport in particular is managed safely by informed experience and an interest in self preservation.

In addition, it is clear from development underway regarding the future certification of sub 2000 kg aircraft (ELA) that instigating the damaging upheaval and distress associated with implementation of Part M would be incredibly unwise as this regulation will be even more inappropriate under a lighter (ELA) certification regime.

response *Noted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

122

comment by: *SITEMA – Sindicato dos Técnicos de Manutenção de Aeronaves*

SITEMA is tottally against this change.

JUSTIFICATION:

All aircrafts, large or other, need preventive maintenance due to the simple fact that it is a machine and thus subject to malfunctions, that can also be due to agravation of a single failure. Therefore, it should include a Reliability programme.

response *Not accepted*

The change in M.A.302 is part of the CRD 07/2005 and, in any case, the introduction in the rule of this limitation to large aircraft is not new. It exists already in the current AMC M.A.302(d).

comment

144

comment by: *John Tempest*

Comment on Section IV A) Para 12.

It is understandable, having put considerable effort into generating and publishing Part M, that EASA and the authoring NAAs will be reluctant to cancel or radically change Part M for light aircraft below 2730 kg to create a much simpler system for continued airworthiness assurance.

The reality is, however, that Part M has been authored by regulatory authorities without industry consultation during its initial creation. The resulting requirements are tailored towards large aircraft maintenance and are a massive overkill for light aircraft below 2730 kg MTOM. There is no comparable bureacratic system overseeing other forms of recreational vehicle. The few beneficial changes proposed by this NPA, while generally welcome, do not address the basic unsuitability of Part M for use on aircraft <=2730 kg MTOM.

The benefits that would ensue if starting with a clean-sheet, in partnership with the light aircraft maintenance industry and operators, following cancellation of Part M due to the weight of dissatisfaction from the light aircraft community,

have not been realised to date.

Consideration should be given to adopting the maintenance regime that has been in use for many years in the USA, where individual qualified personnel, rather than Approved Organisations, carry the responsibility for the continued airworthiness of each aircraft. By using this style of continued airworthiness oversight, maintenance overheads would be kept to a minimum. In addition, the FAA procedure to obtain the licenses required to certify maintenance is well structured and straightforward, allowing almost any interested and competent individual to qualify.

The volume of requirements to be met before an individual can establish an Approved Organisation under EASA in order that he may maintain aircraft will inhibit small organisations from being formed. Instead, maintenance will be available only from a small number of high-overhead Approved Organisations, which will sharply increase the costs of aircraft maintenance. This will result in a degraded industry as costs increase, and will have safety impacts throughout the industry. Increased maintenance costs will inhibit the number of hours flown by private pilots who do chose to continue.

An occasional individual with remarkable tenacity will obtain the Approvals, and these individuals will be used as examples of how it is possible. However, the reality is that the weight of bureaucracy will inhibit the ability of many individuals to start up maintenance organisations, even though they would be competent to carry out the maintenance and certification work and produce a safe aircraft.

The weight of added bureaucratic costs associated with the 'Approved Organisation' system, as opposed to the qualified individual, will result in no significant safety benefit. This can be demonstrated by the fact that the safety record in the USA is acceptable.

My opinion is that this review of Part M following initial industry consultation has not been far reaching enough to generate a tailor-made system for light aircraft. The light aircraft industry will suffer economic penalties as a consequence, which will raise the cost of flying, reduce the flying hours flown and hence reduce safety.

My opinion is that the dilution of responsibility in an Approved Organisation away from the individual signatory is detrimental to safety. Further, the whole principle of the Approved Organisation has more to do with skill in forecasting what the NAA would wish to see in the required procedures manual, than producing a safely maintained aircraft at a reasonable cost to the owner. With or without the huge bureacracic overhead, one man still signs the Release to Service.

My proposal is that EASA should import the FAA continued-airworthiness assurance system from the USA, and cancel Part M. Such a simplified continued airworthiness assurance regime based on the FAA model would be applicable to light aircraft below 2730 kg used for both non-commercial and commercial air transport purposes.

Failing the wholesale cancellation of Part M, the next best alternative action would be to remove the need for the Subpart G CAMO for light aircraft  $\leq 2730$  kg, and allow companies Approved to Subpart F to fillfill the requirements of the Airworthiness Review and hold previledges to issue an ARC without the



	need for further Approvals, and hence additional costs.
response	<p><i>Noted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>
comment	<p>154 <span style="float: right;">comment by: <i>Armageddon Associates</i></span></p> <p>It is indeed a tragedy that the opportunity to develop a Part M (light) was not taken. We now are faced with, essentially, a watered down version of the requirements for the Part 145 Commercial Air Transport maintenance organisations with the high level of bureaucracy that necessarily entails.</p> <p>A greater contrast with the situation that prevails in the USA and which safely maintains probably 75% of the world's general aviation aircraft cannot possibly be imagined. Furthermore there would appear to be no safety case whatsoever for these draconian changes to national regulations, especially those in current use in the UK.</p>
response	<p><i>Noted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>
comment	<p>168 <span style="float: right;">comment by: <i>Derek Wilson</i></span></p> <p>Have EASA totally disregarded the comparable safety record of the de-regulated British Gliding Association in producing NPA 2007-08 ?</p> <p>A 'one size fits all' regulation is not appropriate here and will increase the costs of gliding 10 fold. This can never be acceptable. The reasons given in IV-12 of NPA2007/08 for a single Part M regulation are those for the convenience of the regulator, and not for the satisfactory and economic function of gliding and the rest of the GA sector.</p>
response	<p><i>Noted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES</p>
comment	<p>170 <span style="float: right;">comment by: <i>Derek Wilson</i></span></p> <p>Licensing of engineers. As written, this draft of Part M ignores the success of the gliding movement and unreasonably diminishes the role and privileges of individual licensed engineers. The document does not recognise that non-commercial maintenance can take place and assumes that owners will engage (several) professionally qualified ORGANISATIONS, eg. Sub Part F for maintenance, CAMO for airworthiness and/or NAA for ARC issue.</p> <p>Maintenance and CAMO functions could be carried out by qualified licence engineers provided his responsibilities and privileges are properly recognised such as in M.A.600</p>

response

*Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

181

comment by: *Bill Taylor*

NPA A IV-Para 12 Background Information explains why a separate Part M (Light) has not been written, and given the likely commonality between Part M and such a Part M (Light), this reasoning is understood. However, in making the slight amendments to Part M to better accommodate the concerns of GA, only simple changes to some of the procedures have been proposed. It is clear that there has been no fundamental reconsideration of the need to apply the full Part M to light aircraft, gliders etc, nor of the massive increase in bureaucracy and cost that this will create. These factors are quite likely to result in safety being degraded.

The structure of Part M as it stands at present, and as amended by this NPA, is NOT ACCEPTABLE for application to the light GA sector. The RIA has not looked at the added costs that will be caused by its adoption and no safety benefit has been shown to result from its adoption by this sector. The imposition of the current Part M is fundamentally flawed and the whole situation must be reconsidered, working from first principles. Just what sort of maintenance and continued airworthiness regime is needed by this sector? The mild watering down of the requirements for commercial air transport is not acceptable.

response

*Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of the CRD.

comment

202

comment by: *Ted Norman*

PARA 12

It would appear from para 12 that your organisation has decided that it will organise itself for its convenience, that is you only want one method of doing things. GA and gliding in particular is not commercial air transport. I consider your plans complex and unnecessary for small uncomplex aircraft. The thing that concerns me most with your approach is that it will drive servicing underground and you will loose control of the whole system.

Your comment on duplication is very thin in these days of word processors, it in fact totally unsupportable except in the bureaucrats mind.

The comment on moving between non CAT and CAT is also a diversion how many of the 80,000 plus GA aircraft do that a year specifically how many gliders/glider tugs?

I have been briefed that the groups discussing the ELA system are going down a simpler route where those that own the aircraft are responsible for their aircraft not the multilayered professional engineering organisations as suggested in this poorly thought out system.

My reading of the whole system suggested indicates to me that you have not looked at either costs or safety. I think it is inevitable that costs in the UK will rise damatically (I am aware that the NAA is insiting that any work carried out by the small number of 1/2 man operations repairing gliders shall be done under their control and by the way that will cost these small firms £2160 per year and of course the consultancy fee of £177/hour). These costs will be recovered from us as operators and of course EUROPE will be blamed!

ANY OTHER COMMENTS MADE ARE MADE ONLY IN RESPONSE TO THE PARA CONCERNED. THE OVERIDING SYSTEM IS TO COMPLEX IN MY VIEW AND SHOULD BE RETHOUGHT. It is essential that a proper RIA is carried out.

Always remember that if you do not get the agreement of the comunty you seek to regulate nothing you do will recover the situation untill you do get their agreement.

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment 207

comment by: *George Rowden*

Page 6, Para 13.

Comment Text.

The proposed regualtions discriminate against individual licensed engineers by unfairly requiring owners to use several separate organisations to undertake the same work. Maintenance and many of the CAMO tasks could readily be undertaken by suitably qualified, individual, licensed engineers as they are now.

Reason Text.

Replacement of the work of individual licensed engineers in the UK by a number of organisations will result in significantly greater cost for the owners, NAAs and organisations without any benefit in improved safety as in the UK individual licensed engineers are held in high regard. Indeed operational efficiency will be impaired.

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraphs GENERAL ISSUES / MAIN CHANGES and to the consolidated version of Part-M at the end of this CRD.

comment 216

comment by: *Sarah Kelman*

It is my understanding that this 'one size fits all' is contrary to the

recommendations made by the existing governing bodies, including the CAA.

This rapid implementation mirrors the confusion caused when initial JAR licencing was introduced without being thoroughly thought through.

The proposed regulations are draconian in the sailplane environment and will result in gliders being grounded. Remember, we are talking about simple craft with very few moving parts, often with core hull values of under 4000 euros including trailer and instruments. You are proposing layers of regulation which will require a cost similar to the value of the aircraft each year.

This is wholly unnecessary in an area of sport which has previously been regulated solely by the governing body, the BGA, and also enjoys one of the highest levels of safety and maintenance standards of any aspect of aviation.

This rule making is solely to appease the regulator and not to enhance the sport. We are already operating successfully in a regime where the owner is also responsible for the maintenance and operation of the aircraft without the proposed further complications.

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment 218

comment by: *Sarah Kelman*

Para 13:

This does not allow for the current situation of maintenance of sailplanes where we have a system of individual licensed engineers working without the umbrella of a maintenance ORGANISATION. Sailplanes are very simple and this over complication of maintenance hierarchy will again simply spiral costs beyond the reach of most owner operators. It is not appropriate to have a licensed organisation nor facility in the same way that is required for complex powered types. It is safe and practical to conduct a maintenance review at the gliding site in the field out of the back of the trailer. Most gliding clubs are small and although they have individual inspectors, there are not the facilities nor demand to form a maintenance ORGANISATION with associated overheads and regulatory fees.

Similarly, M.707 has a similar problem which detracts from individual inspectors. It is not appropriate to introduce such deep levels of supervision, audit, and overseeing that will ultimately only benefit lawyers as they battle over the intricacies of the new legislation with no enhancement to safety.

response *Partially accepted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

237

comment by: *British Gliding Association*

Background Information – Page 6, Para 13

Licensing of engineers. - As written, this draft of Part M unreasonably diminishes the role and privileges of individual qualified or licensed engineers. The entire document remains oriented wholly towards the imposition on owners to engage (several) professionally qualified ORGANISATIONS, e.g. Sub Part F for maintenance, CAMO for airworthiness and/or NAA for ARC issue (in the general case). Maintenance, and many of the CAMO functions, could equally be carried out by qualified licence engineers provided his responsibilities and privileges are properly recognised such as in M.A.600 (areas).

Reason Text

The requirement to engage with organisations with approvals will inevitably drive up costs to those organisations, NAAs and owners alike, without benefit to safety or regulatory efficiency. The only beneficiaries from this approach will be lawyers and Professional Indemnity Insurance companies. The UK holds its qualified or Licensed Engineers in good repute, but this situation does not appear to be reflected across Europe. Those European nations which have less regard and/or less control over their licensed engineers should be advised to apply appropriate legislation rather than diminish the role of these individuals in the pan European rule. Without doing this, Part M and associated personnel licensing initiative such as Part 66 will be ineffective and the whole regulation will become an expensive bureaucratic exercise to the detriment of sport/GA aviation.

response

*Partially accepted*

M.A.901 has been modified in the resulting text for aircraft below 1000 Kg, to allow an independent certifying staff with a Part-66 licence who has at least 3 years of airworthiness management and appropriate aeronautical maintenance training, to issue a recommendation for the competent authority to issue an ARC. See the Attachment 1 to this CRD paragraph GENERAL ISSUES and the consolidated version at the end of this CRD in M.A.901(g).  
Private owners of non-large aircraft are not obliged to contract a CAMO and, in addition, the maintenance of those aircraft can be performed by independent engineers (except for complex tasks per Appendix VII)

comment

252

comment by: *Roderick Weaver*

The argument that it is too onerous to introduce different regulations for aircraft not involved in Commercial Air transport is at best weak and is probably specious.

There are numerous examples of regulations for activities involving "the public" being stricter than those applicable to private activities. e.g. public transport road vehicles.

There are different requirements for the protection of the public and this should be reflected in NON-commercial aircraft being exempted from the majority of the new regulations proposed.

The gliding community, with which I am most concerned, has managed very successfully over many years to control and operate aircraft with an excellent safety record at a sensible cost and administration burden.

The introduction of unnecessary regulation has several serious disadvantages:-

\* It often tempts people , who would not otherwise be tempted, to avoid the extra cost and "cut corners". thereby actually decreasing the overall safety of the activity. examples can be seen in the not infrequent use of non-aviation parts in aircraft and unqualified engineer work being carried out.

\*the exercise will largely be a "paper trail" which may be appropriate for the aircraft being flown by a multiplicity of users, is not and should not be the focus of attention for private users. The focus of attention and where costs and resources should be directed for private users should be the airframe and engine. A ditraction to increased bureaucracy in the name of avoiding having two more appropriate and effective regulations is a backward step which will reduce safety.

\*People comply with regulations which they consider to be "good law". The argument of asserting that there should only be one law for all different situations introduces "bad law" which will not add to safety but will denigrate the whole regulatory framework.

\*Gliders and some light aircraft have few moving parts and are relatively simple aircraft. They do not need the same levels of documented regulation as an aircraft typically used in commercial transport.

response *Partially accepted*

Several alleviations have been proposed which affect ELA aircraft below 1000 Kg which include sailplanes.Refer to the Attachment 1 document to this CRD paragraph GENERAL ISSUES and see the consolidated version of Part-M.

comment 278

comment by: *British Gliding Association*

Background Information – Page 6,

Comment Text

The timescale now envisaged for the implementation of 2042/2003 – 'Part-M Requirement for aircraft not used in Commercial Transport', in any form, is wholly unrealistic. Now, in September 2007, in UK, and in common with our NAA (CAA), the BGA are unable to provide its member/owners with any reliable information on what measures will be required to sustain the airworthiness of their aircraft/sailplanes, post Sept 2008. Further, organisations such as BGA, who are potentially interested in working in these areas have no means of comprehending, ab initio, what costs and commitments they might be entering into in respect of maintenance or continuing airworthiness or ARC renewal. A void is rapidly developing in the market which, over and above increasing costs and actually reducing maintenance/airworthiness standards, will lead to total stagnation of the field. The number of interested parties presenting themselves to the UK NAA for Sub Part company accreditations is wholly inadequate to the need of the nation. Meanwhile our existing, proven, safe system is already undergoing the rigours of re-certification transition under Part 21.

EASA is urged to reconsider the timescale and planning of the entire Part M initiative, as it is now universally viewed as being unnecessarily complex, costly and totally ill-fitted to current need.

The recently publicised possibility of introducing Part-M 'piecemeal' is viewed with even greater concern as by its own structure Part-M is not amenable to this approach. Further, the whole idea of implementing this massive burden

on private individuals, when a more rational approach of ELA is already being planned within EASA walls defies common sense.

response *Partially accepted*

Refer to the explanations in Attachment 1 to this CRD in paragraph GENERAL ISSUES, and the consolidated version of Part-M at the end of the CRD.

comment 280

comment by: BGA

Background Information – Page 6,

Comment Text

The timescale now envisaged for the implementation of 2042/2003 – 'Part-M Requirement for aircraft not used in Commercial Transport', in any form, is wholly unrealistic. Now, in September 2007, in UK, and in common with our NAA (CAA), the BGA are unable to provide its member/owners with any reliable information on what measures will be required to sustain the airworthiness of their aircraft/sailplanes, post Sept 2008. Further, organisations such as BGA, who are potentially interested in working in these areas have no means of comprehending, ab initio, what costs and commitments they might be entering into in respect of maintenance or continuing airworthiness or ARC renewal. A void is rapidly developing in the market which, over and above increasing costs and actually reducing maintenance/airworthiness standards, will lead to total stagnation of the field. The number of interested parties presenting themselves to the UK NAA for Sub Part company accreditations is wholly inadequate to the need of the nation. Meanwhile our existing, proven, safe system is already undergoing the rigours of re-certification transition under Part 21.

EASA is urged to reconsider the timescale and planning of the entire Part M initiative, as it is now universally viewed as being unnecessarily complex, costly and totally ill-fitted to current need.

The recently publicised possibility of introducing Part-M 'piecemeal' is viewed with even greater concern as by its own structure Part-M is not amenable to this approach. Further, the whole idea of implementing this massive burden on private individuals, when a more rational approach of ELA is already being planned within EASA walls defies common sense.

response *Partially accepted*

Refer to the different explanations in Attachment 1 to the CRD in paragraph GENERAL ISSUES, and to the consolidated version of Part-M at the end of the CRD.

comment 304

comment by: trevor sexton

General Comment

The NPA was suppose to include a number of issues had been raised by the MDM032 working group. Therefore the implementation of Part M for sub-1000 kg aircraft should be delayed until the final results of the MDM.032 Working Group have been delivered, the comments resulting from the associated NPA have been analysed and their conclusions used in the development of rules for the continuing airworthiness of such aircraft. Then a set of appropriately light

rules should be drafted for those sub-1000 kg that fall outside Annex II.

response *Partially accepted*

Refer to the explanations in Attachment 1 to this CRD in paragraph GENERAL ISSUES, and the consolidated version of Part-M.

comment 305

comment by: *John Murphy*

Again we are being told what's best for us by the faceless bureaucrats that populate the regulatory bodies. They have shown they do not listen to the organisations that govern microlight sport aviation. The introduction of over complicated rules is not what is required at the lighter non commercial end of aviation.

The amalgamation of all aircraft types up to a MTOM of 2730 kg for the convenience of bureaucracy and administrative reasons is tantamount to wanting to destroy recreational aviation at the lighter end. There is no evidence of excessive risk to aviators and the public from aircraft maintained by owner/operators. To burden owner/operators with unnecessary and unwanted regulations will only lead to the loss of microlight aviation and the freedom we have at this time.

response *Noted*

Part-M is not applicable to micro-light aircraft.  
Refer to the different explanations in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment 312

comment by: *Nick Norman*

Regarding para 12: It is very disappointing to see that EASA have disregarded industry's preferred option to have a separate regulatory framework for light aircraft not involved in public transport. EASA's stated justifications for this seems weak.

The first and second bullet points are on duplication. In other words, EASA considers the minor inconvenience of a little more work for EASA apparently justifies the massive blow to light aircraft maintenance which will inevitable have a major adverse impact on recreational aviation, with no benefit in terms of safety. EASA is saying that its personal workload is the over-riding factor, however EASA must remember that its function is to serve aviation, not the other way round. If EASA does not wish to carry out its functions diligently, perhaps it should find something else to do?

The third bullet point relates to a tiny minority of owners/operators, almost certainly under 1%. Remembering that the vast majority of owners/operators are private individuals or sporting clubs that have no wish to enter the realm of commercial air transport, this argument is spurious in the extreme.

A separate Part M (light) containing regulation appropriate to the size, complexity and usage of light aircraft, not confused by text relating to large CAT aircraft, will be far clearer for the end-user and National Airworthiness Authority and is less likely to result in mis-interpretation by them, which in the case of the NAA can result in widely differing implementations of the rules in



	different EASA states.
response	<p><i>Noted</i></p> <p>Refer to explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES.</p>
comment	<p>313 <span style="float: right;">comment by: <i>Nick Norman</i></span></p> <p>As an overall comment, EASA is losing sight of the balance needed between cost and benefit (in terms of safety) for light aircraft not used for commercial air transport, in particular unpowered aircraft. In the UK, glider maintenance has been regulated by the British Gliding Association for many years, and the safety record shows that this has been as effective, or more so, compared to other EASA state schemes that are far more complex, beaurocratic and costly.</p> <p>Part of the reason for its sucess is that procedures and processes are matched carefully to the target aircraft type (in this case gliders) resulting in no loss of clarity and relevance, something which can occur with a "one size fits all" system of regulation that would try to apply itself to gliders and large jet transport aircraft alike.</p> <p>EASA should please remember that regulatory burden can only be justified by a matching safety benefit. Regulation for its own sake should be avoided.</p>
response	<p><i>Partially accepted</i></p> <p>Refer to the different explanations in the Attachment 1 to this CRD in paragraph GENERAL ISSUES.</p>
comment	<p>315 <span style="float: right;">comment by: <i>Tim FREEGARDE</i></span></p> <p>From the proposals outlined in NPA 2007-08, and notwithstanding some intelligent and sensible improvements to previous material, EASA appears set upon the introduction of a bureaucratic, centralized regime in place of the successful current practices that exploit the diligence and attentive responsibility of individually empowered engineers, owners and pilots. Simply for the sake of administrative neatness, it proposes to extend a rationale appropriate for large commercial aircraft to the light aviation category that is fundamentally different in complexity, operation, public/environmental/political risk and philosophy. For these changes, it can offer no justification in terms of safety, convenience, affordability, commercial growth or public good, nor can it identify any weakness in current practices that requires attention. Further, by proposing to establish its own new standards to the exclusion of established, proven, and arguably better US controls and documents, EASA appears to be further motivated by 'empire building', at the expense in cost and convenience of the light aviator. EASA has failed to identify the safety implications of a regime that will inevitably lead to longer periods of aircraft unserviceability, and which –already manifest in more bureaucratic European states – will drive maintenance 'underground', causing it to be carried out by skilled and well-meaning but totally unsupported and unregulated owners and pilots. Indeed, throughout this proposal, EASA offers no significant evidence to justify or support any of its preferences.</p> <p>There are within Europe many models for the regulation of maintenance in</p>

light aviation. States that apply a 'light touch' demonstrate a highly satisfactory safety record that is at least as good as those that impose greater regulation. My own experience from living in other states is that over-regulation results in unofficial maintenance by skilled and careful owners and pilots who thus lack the advisory support and light regulation that in the UK would allow them (eg as BGA inspectors or individual licenced engineers) to offer the best current practice in an affordable and convenient fashion.

It is widely recognized that the principal contribution to the rare accidents in light aviation are pilot related; many come down to, or are exacerbated by, sub-optimal pilot currency and familiarity, and the main reasons for these are poor weather and aircraft unserviceability. The latter is usually because of routine servicing, inspection and certification, rather than failure of the aircraft itself. Any regime that makes maintenance, inspection and certification more difficult (by restricting the people, organizations and locations involved), slower (by such restrictions, their relative inaccessibility, and increased scheduling delays), or more bureaucratic (and hence time-consuming for the owner/pilot), will only reduce the pilot's opportunities to fly.

EASA must recognize that a direct consequence of the proposed method of regulation will therefore be an overall deterioration of flight safety, as well as a likely increase in airspace incursions and other pilot errors.

response *Noted*

Refer to the different explanations in Attachment 1 to the CRD in paragraph GENERAL ISSUES, and to the consolidated version of Part-M at the end of the CRD.

comment

325

comment by: *Sinclair Smith*

Page 6 Para 12

The regulator is wanting to take a sledge hammer to crack a nut. Surely regulation needs do vary according to the risk. If these proposals are implemented, the cost involved to the owners of gliders would be prohibitive with little or no benefit.

The British gliding association has shown for many decades that it sensibly manages the safe operation of gliders throughout the UK and should be permitted to continue to do so.

response *Noted*

Refer to the different explanations in Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment

326

comment by: *Sinclair Smith*

Page 6, Para 13.

The draft plans to reduce significantly the role of licenced engineers that have done a superb job in the UK on the repair and maintenance of light aircraft and gliders. Why change the existing successful process and move to a bureaucratic and expensive methodology for absolutely no benefit to safety.

response *Not accepted*

Maintenance of private aircraft other than large aircraft can be performed by independent engineers except for Complex Tasks (Appendix VII) which are expected to require the availability of special tooling / facilities.

comment

334

comment by: *J Kilpatrick*

Microlight Industry has asked for a light version of Part M, EASA has decided for administrative reasons not to have one. Does EASA believes that all non-commercial aircraft below an MTOM of 2730 kg need one set of rules ? ... this is completely crazy. Part M, much of which is full of jargon, has no relevance to lightweight sports and recreational aircraft, especially ultralight/Microlight sectors. For many pilots well able to undertake their own maintenance, understanding Part M will be considerably more difficult than carrying out maintenance on their own aircraft.

Inevitably this will lead to maintenance being done quietly and illegally and may well result in more accidents / deaths.

response

*Not accepted*

Part-M is not applicable to microlight aircraft.  
National regulation applies.

comment

354

comment by: *Werner Scholz*

I am a glider pilot since more than 25 years and operate a private owned sailplane.

Additionally I fly as flight instructor on the sailplanes of my gliding club.

The maintenance of my own glider is mostly conducted by myself.

The club gliders are maintained in the clubs workshop by the club members.

The yearly inspections (in both cases) are normally made by Prüfer (inspectors) which are member of our Gliding Federation (German Aero Club, DAeC) which work as Prüfer on a voluntary basis (honorary, not paid employees).

I consider my situation and this way of operation / maintenance of the gliders as fairly typical in Germany.

Additionally I had many contacts to other glider pilots / clubs all over Europe (especially UK, France, Italy, Sweden, Netherlands, Slovenia) where I was able to get insight into the system being practised there. The common base everywhere is the high proportion of honorary work in order to keep the costs of this type of flying reasonable.

Nowhere (neither for me personally, in my club, at other airfields, in other countries) did I get the impression that we (the gliding community) are faced with a safety problem in regard to the maintenance (or "continuing airworthiness" as it is been called within regulations) of sailplanes in Europe.

Therefore I conclude that all changes in the maintenance system by introduction of Part M and related regulations will probably not improve safety (because it is already safe).

Unfortunately I got already a lot of evidence that this change of regulations will cause large efforts on the side of all parties concerned.

The maintenance organisations (including the gliding federations) need new approvals, every owner has to change some of the maintenance documentation, the national aviation authorities change procedures, etc..

It comes without speaking that such a change will cost time, effort and also money. It is also clear that this money has to come finally from "the customer" - this is obviously me.

Being prompted to pay more but getting not more of what I wanted to have (that is technical safety of the gliders I operate) I asked what additional benefits could justify my increased expenses.

The only concrete benefit visible to me are some alleviations in the case that I will buy/sell a glider from/to another country or conduct maintenance there.

Honestly I consider this benefit at best a "nice to have" and not as a "must have". I would gladly exchange the effort and additional costs of this regulatory change against the existing efforts in case of such a trans-border transaction (which I already have done in the past).

So here my comments / questions:

**Is there any opportunity to avoid this (from my perspective) entirely useless introduction of Part M and related regulations for parts of aviation (like gliding) where no real benefit is to be expected?**

**Would it be a viable option to let the owner of an aircraft decide (say below a certain weight limit) whether he/she opts for the new European regulations (for maintenance) or rather stay with the existing national rules?**

**Isn't it true that the old national rules nevertheless have to stay in place because of aircraft not falling under EASA jurisdiction (like ultralights and other Annex II aircraft)?**

Living in a democracy I know that I have always the option to go to "my parliamentarian" to bring forward my desires but this is practically quite difficult - therefore:

Are there any plans / mechanisms inside EASA to forward the concerns of small aircraft operators to the decision makers inside the European Community?

**EASA will not lose importance by explaining to non-aviation experts the impact of degradation of small aviation in Europe - but is EASA willing to do this?**

Last but not least: I understand that the changes proposed in this NPA 2007-08 are in fact alleviations to the existing Part M and related regulations.

Therefore I fully endorse these changes as listed in NPA 2007-08.

Nevertheless I would like to cite **Lord Falkland (1610 - 1643):**

**When it is not necessary to make a decision, it is necessary not to make a decision.**

The decision to throw away all the existing and proven maintenance rules in Europe in favor of the introduction of Part M is not necessary for small aviation like gliding!

response *Partially accepted*

See the different explanations in Attachment 1 to this CRD in paragraph GENERAL ISSUES.

comment

357

comment by: *Tom DAWSON*

It does not seem appropriate to have one set of rules for all aircraft under 2730kg when there is such a great difference between the light aircraft under say 100kg or even 750kg and those nearer to the top end of the weight limit.

It would be much more appropriate to exclude many light aircraft to avoid overloading EASA's system particularly in the light of the good safety record of those light aircraft such as microlights which currently are responsible for their own maintenance.

Interpreting and following the regulations will be more onerous than the act of maintaining the aircraft.

This is surely disproportionate.

response

*Noted*

See explanations in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment

367

comment by: *Padraic O'REILLY*

EASA believes that all non-commercial aircraft below an MTOM of 2730 kg need one set of rules, These rules will have no relevance to lightweight sport and recreational aircraft. For many pilots well able to undertake their own maintenance, Maintaining their aircraft under the proposed Part M will be considerably more difficult than they themselves than carrying out maintenance on their own aircraft. this will create an additional burden on Lightweight sport and recreational aircraft owners and pilots with NO statistically proven safety improvements.

response

*Noted*

See explanations in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment

385

comment by: *CAA-NL, SCI*

Ad 14: Note that the consolidated document contains elements missing from

the NPA, which should clearly be included (e.g. evidenced by otherwise unexplainable renumbering, see e.g. AMC M.A.607(c), AMC M.A.801, etc.). Propose to make consolidated text leading.

response *Not accepted*

The paragraphs that you are mentioning result from CRD 07/2005 and they were not changed in this NPA 2007-08.

This is a consolidated version that includes both the changes in CRD 07/2005 and the changes in NPA 2007-08.

comment 390

comment by: *Barry Plumb*

The EASA have confirmed in NPA 2007-08 that they do not intend to produce a dedicated Part M (light) to suit the operation and continued airworthiness of light aircraft not used for commercial purposes. This means that the full rigor of Part M as amended by NPA 2007-08 will apply to light aircraft and gliders not used for commercial purposes. The existence of just one regulation to cover the whole range of commercial and non-commercial aviation has come about to suit the purposes of the EASA rather than the purposes of the industry that it seeks to regulate.

The EASA working group MDM 032 was brought into being as a result of COM 579 which demonstrated the EASA's view that the development of light aviation in Europe was being stifled by over-burdensome level of regulation. Yet the EASA now intend to introduce a regulation, which seeks to impose further over-burdensome constraints on the operation of light aircraft and gliders used for non-commercial purposes. This is contrary to the EASA's stated aims for the MDM 032 working group. It is of little purpose reducing the level of regulation for initial airworthiness and certification, if the regulation of continuing airworthiness continues to stifle development.

The introduction of the highly successful LSA category in the United States of America, with its attendant reduction in the level of regulation has demonstrated that reduced regulatory burden leads to significant growth in industry.

The existing operating procedures in UK allow all of the maintenance and continuing airworthiness activities for light aircraft to be carried out by organisations approved to M3. This system has worked well up to date with a demonstrably good safety record. Part M seeks to introduce an entirely new level of bureaucracy (the subpart G approved CAMO) with the inevitable increase in costs, without making any case for an increased safety level resulting from this addition. The increase in operating costs will work counter to increased safety, as operators are forced due to financial burden to fly less frequently and therefore maintain a lower level of currency. The increase in costs will also serve to further reduce the development of light aviation in Europe, counter to the stated aims of MDM 032 and COM 579.

Since the existing UK system of maintenance and continuing airworthiness produces an good level of safety it is considered that there is no need for the requirements of subpart G (CAMO) as this function can be carried out by the maintenance organisations approved under subpart F, for all light aircraft and gliders not used for commercial purposes.

response *Partially accepted*

Not having a "light Part-M" does not mean equal requirements for all type of

aircraft.  
See explanations in Attachment 1 paragraph GENERAL ISSUES.

comment

408

comment by: *Tom Snoddy*

Page 6 Para 12

Introducing identical rules for various classes of aircraft is not sensible and is unsuitable for light aircraft and gliders. This will create large costs for owner operators without any safety benefits. This process should be stopped and simplified arrangements made for light aircraft and gliders. In the UK, gliders have been regulated through the British Gliding Association and there has been an excellent safety record. There is no problem to be fixed by imposition of new complex rules for simple aircraft. Stop this process now.

response

*Noted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES

comment

411

comment by: *Tom Snoddy*

Page 6 Paragraph 13

The proposal diminishes the role of licensed engineers. It plans the introduction of a multi-level bureaucratic overhead to be borne by owner operators of light aircraft and gliders. This will drive up costs by a huge amount to no benefit for this class of aircraft.

response

*Accepted*

For aircraft below 1000 Kg, new arrangements have been proposed to allow an independent certifying staff with a Part-66 licence who has at least 3 years of airworthiness management and appropriate aeronautical maintenance training, to issue a recommendation for the competent authority to issue an ARC. See the consolidated version at the end of this CRD in M.A.901(g).

comment

414

comment by: *IAOPA Europe*

NPA A IV-Para 12 Background Information explains why a separate Part M (Light) has not been written, and given the likely commonality between Part M and such a Part M (Light), this reasoning is understood. However, in making the slight amendments to Part M to better accommodate the concerns of GA, only simple changes to some of the procedures have been proposed. It is clear that there has been no fundamental reconsideration of the need to apply the full Part M to light aircraft, gliders etc, nor of the massive increase in bureaucracy and cost that this will create. These factors are quite likely to result in safety being degraded.

The structure of Part M as it stands at present, and as amended by this NPA, is NOT ACCEPTABLE for application to the light GA sector. The RIA has not looked at the added costs that will be caused by its adoption and no safety benefit has been shown to result from its adoption by this sector. The imposition of the current Part M is fundamentally flawed and the whole situation must be reconsidered, working from first principles. Just what sort of

response	<p>maintenance and continued airworthiness regime is needed by this sector? The mild watering down of the requirements for commercial air transport is not acceptable.</p> <p><i>Noted</i></p> <p>Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES.</p>
comment	<p>500 <span style="float: right;">comment by: <i>M Wilson</i></span></p> <p>ECOGAS welcomes almost all the changes in this NPA, although we fear even with these changes Part M is not a fit rule for smaller General Aviation. Irrespective of this fear, ECOGAS urges that the implimentation of Part M for sub 5700kg aircraft is delayed. In less than a year Part M is upon us. While the changes in this NPA ease the situation for smaller organisations they will still face considerable problems obtaining approval by next September. By the time the changes proposed in the NPA are actually approved and issued, these Small and Medium Sized Enterprises (SME's) will have insufficient time to obtain a Part M approval without significant disruption to their working. Community policy is to protect SME not disadvantage them. The implimentation of Part M should be delayed. ECOGAS would prefer it was delayed for long enough for a new Part M for GA to be written but irrespective of this a delay of at least 12 months would be required.</p>
response	<p><i>Partially accepted</i></p> <p>It is not the intent of the Agency to postpone Part-M. This rule was initially applicable in 2005 and already had the benefit of a 3 years opt-out. However the Agency has considered appropriate transitional measures.</p>
comment	<p>518 <span style="float: right;">comment by: <i>john NORTH</i></span></p> <p>page 6, para 12</p> <p>The reasons given for ignoring the option preferred by most of the Industry (i.e. a Part M 'Light') appear to be for the convenience of the regulator, rather than the effective and economic operation of light and sport aircraft.</p> <p>The additional expenses of the measures required under Part M are inappropriate and disproportionate for Gliders, based on historical evidence provided by the BGA and other national associations.</p>
response	<p><i>Noted</i></p> <p>Refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES.</p>
comment	<p>528 <span style="float: right;">comment by: <i>Damian LE ROUX</i></span></p> <p>Huge increase in costs for UK light aircraft private owners. Do not punish UK aviation because other European countries have poor regulation/supervision of their licenced engineers.</p>



response

*Noted*

Refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES.

comment

533

comment by: *Richard RAWES*

The regulatory regime currently imposed on the lower end of this weight category (that is for UK aircraft defined as microlights) has served its purpose very well, with statistics bearing out the fact that the airworthiness of aircraft in this category has not been compromised.

To impose now, or at any future date, a regulatory regime that requires a PART M styled structure, will only serve to deny the fundamental rights of individuals to enjoy the freedoms they currently enjoy; rights that will have been removed by the imposition of regulatory and financial burden that cannot be justified on safety grounds.

You are, therefore, urged to reconsider the application of an Airworthiness regime designed for CAT on non-CAT ops, but particularly with respect to light sport aviation aircraft types such as microlights where the current regime has and will continue to preserve airworthiness for these aircraft types.

response

*Noted*

Operators of microlight aircraft are not affected by Part-M. However refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES.

comment

549

comment by: *Fédération Française de Planeurs Ultralégers motorisés*

The French microlight association FFPIUM had been very surprised that in spite of most of the Industry and users opinions the EASA has decided to put all the aircraft of less than a MTOM of 2730 kg under the same general maintenances rules.

The major part of those rules are wrote in such a manner that even professionnel mechanics were unable to clearly understand them.

They imply a lot of paperswork s with no other utilities than protecting the hierarchical chaine of responsibility.

FFPIUM think that the best way of ensuring the safety of those light aircraft categories is to share the responsibility for maintenance between the owners and the manufacturers. The last one will be in charge of the maintenance programme and the first be responsable for the application even if the work will be delegated to a sub contractor of his choice approved by the manufacturer.

response

*Noted*

Operators of ultralight aircraft are not affected by Part-M. However refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES.

comment

554

comment by: *European Microlight Federation*

Despite industry asking for a light version of Part M, EASA has decided for administrative reasons not to have one. Instead EASA believes that all non-commercial aircraft below an MTOM of 2730 kg need one set of rules. Part M, much of which is full of jargon, has no relevance to lightweight sports and recreational aircraft. For many pilots well able to undertake their own maintenance, understanding Part M will be considerably more difficult than carrying out maintenance on their own aircraft.

response *Noted*

Refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES.

comment 555

comment by: *Donald WALKER*

It is unreasonable to have one set of rules covering all non-commercial aircraft under 2730kg MTOM. These complex rules, which may be appropriate for aircraft at the higher end of the scale, are totally inappropriate for microlights and home-built aircraft. Pilots who carry out their own maintenance will be totally overwhelmed by complex rules, which will not enhance the safety of their aircraft or the public.

response *Noted*

Operators of microlight aircraft are not affected by Part-M However refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES.

comment 559

comment by: *Programme Manager Europe Air Sports*

EAS also welcomes that the work of M.017 and M.005 has resulted in one combined NPA we have no other option but to accept that a Part M light was a No -option during the rulemaking work.

EAS wants to remind that from an airsports user point of view a separate Part M will increase the level of acceptance and understanding by the users.

We therefore strongly recommend to review this issue and introduce this concept when a Part M ELA comes to life.

response *Not accepted*

Refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES.

comment 566

comment by: *Gristwood, Peter*

Page 6 First 3 lines

I am unclear as to why there is a need for there is a specific need for the owner to notify the CAMO of aircraft utilisation.

This is already taken care off by passing the aircraft logbooks to the maintenance organisation as part of the annual maintenance. This works well and needs no further requirement.

response

*Noted*

It is essential that the CAMO in charge of an aircraft is provided on a regular basis with the data of the aircraft in terms of flight hours (and cycles / landings / months depending on the needs in the maintenance programme) in order to ensure a regular follow-up and planning of maintenance checks.

An annual information is far away of the essential need with regard to the maintenance programme maintenance items. Passing the logbooks once a year may result in some inspections/checks becoming expired.

The periodicity with which the logbooks will be passed to the CAMO should be addressed in the contract.

comment

568

comment by: *Malta Department of Civil Aviation*

Such a licences is badly needed as there is a shortage of young qualified maintenance personnel in general aviation. However practical experience and type training requirements need to be reviewed to facilitate this.

response

*Noted*

The impact assessment carried out at beginning of the work showed a short term need for a B3 licence.

The resulting NPA dedicated to the licences will propose also the creation of a Part-66 licence dedicated to ELA 1 aircraft.

The basic knowledge requirements have been adapted to the categories of aircraft they deal with.

In addition, NPA 2007-07 already proposed the elimination of type ratings and type training for most of the piston engine aeroplanes.

comment

572

comment by: *Michael Poole*

Re 12.

EASA has decided not to have a simplified (light) version of Part-M as proposed by most of the industry. It would seem that this has been done for reasons of convenience and **NOT** on safety grounds. This decision will mean that **all** non commercial aircraft with an MTOM under 2730 kg will operate under one set of rules. Part-M in its current form is totally irrelevant for the lightweight end of recreational aviation, where very simple aircraft with a typical MTOM of 400 - 500 kg are easily capable of being maintained to the required standard by their owners. Indeed, for an owner to fully understand the jargonistic language of Part-M will require a much greater effort than the actual maintenance tasks.

response

*Noted*

Refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES.

comment

573

comment by: *S Rogers*

Para 12 indicates quite clearly where the priorities lie in this document. Reduction of the workload of the bureuacrat is rated more highly than the needs of the users of all categories. Quite frankly this is disgraceful.

response

*Noted*

Refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES.

comment

589

comment by: *DULV*

NPA A IV-Para 12 Background Information explains why a separate Part M (Light) has not been written, and given the likely commonality between Part M and such a Part M (Light), this reasoning is understood. However, in making the slight amendments to Part M to better accommodate the concerns of GA, only simple changes to some of the procedures have been proposed. It is clear that there has been no fundamental reconsideration of the need to apply the full Part M to light aircraft, gliders etc, nor of the massive increase in bureaucracy and cost that this will create. These factors are quite likely to result in safety being degraded.

The structure of Part M as it stands at present, and as amended by this NPA, is NOT ACCEPTABLE for application to the light GA sector. The RIA has not looked at the added costs that will be caused by its adoption and no safety benefit has been shown to result from its adoption by this sector. The imposition of the current Part M is fundamentally flawed and the whole situation must be reconsidered, working from first principles. Just what sort of maintenance and continued airworthiness regime is needed by this sector? The mild watering down of the requirements for commercial air transport is not acceptable.

response

*Noted*

Refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES.

comment

598

comment by: *Brian PEARSON*

The dismissal of the views of industry is not justified by any rational or economic argument in this document. As an owner/operator I will be faced with prohibitive increases in my maintenance costs if these draft opinions become law, and may well have to give up flying altogether.

It cannot be sensible to force the regulatory framework relevant to a 500-seat commercial airliner on to owners of light aircraft. The introduction of new or amended regulation should be focussed on producing an efficient and economically viable maintenance regime, not be biased towards the convenience of the EASA bureaucracy.

response

*Noted*

Refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES.

comment

600

comment by: *Royal Netherlands Aeronautical Association*

This decision has severe consequences for the light aircraft community as it will make the document very complex and hard to understand. This may affect safety as requires a light aircraft engineer to understand the additional complexity of the full part-M. The engineer may need to make judgements as

	to what parts do and what parts do not apply for light aircrafts. This burden should not rest on this engineers shoulder.
response	<p><i>Noted</i></p> <p>Refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES.</p>
comment	<p>601 <span style="float: right;">comment by: <i>Royal Netherlands Aeronautical Association</i></span></p> <p>Publishing technology, using a feature called "conditional text" will allow EASA to maintain one text base for Part-M and subsequently mark the parts of the text relevant to Part-M and Part-M light. This will allow printing of a normal and light version of Part-M.</p>
response	<p><i>Noted</i></p>
comment	<p>602 <span style="float: right;">comment by: <i>Royal Netherlands Aeronautical Association</i></span></p> <p>This is a very unlikely scenario. When taking this scenario into account, a very few of these cases will put a severe burden to the large majority that will not go thru such a scenario.</p>
response	<p><i>Noted</i></p> <p>Refer to the different explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.</p>
comment	<p>604 <span style="float: right;">comment by: <i>Brian PEARSON</i></span></p> <p>What on earth is the point of commissioning two specialist working parties to specifically investigate the impact of the proposed changes if you then dismiss their proposals out of hand?</p> <p>No wonder the French and Dutch voted "No" in their referenda. It seems that there is no accountability in this pan-european organisation of yours that has been imposed upon us.</p>
response	<p><i>Noted</i></p> <p>Refer to the different explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.</p>
comment	<p>609 <span style="float: right;">comment by: <i>Royal Aero Club of the UK</i></span></p> <p>EASA has decided not to produce a light Part M. This disregard for the view held by most of industry for administrative reasons simply cannot be justified. The spurious arguments supporting this decision in effect mean that many sports and recreational aviators will suffer great inconvenience to save EASA the inconvenience of two sets of rules. In any event, there is sufficient evidence from lightly regulated sectors to show that airworthiness is not a problem and Part M is an excessive and costly approach. There is no safety argument for imposing Part M on sub-1000 kg aircraft. and it is essential that a proper RIA is undertaken before it is implemented.</p>

response

*Noted*

Refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES.

comment

639

comment by: *Microlight section of Norwegian Airports Assn.***Pages 5 - 6****IV. Content of the draft opinions and draft decision****A) Background information****Paragraph 12**

EASA says:

12. This NPA contains the proposed changes resulting from the work of both groups (M.017 and M.005). These changes have been proposed as an amendment to the current Part-M, without creating a separate Part-M (light) specific for aircraft not involved in Commercial Air Transport. This latest option was the one preferred by most of the Industry. However, the Agency did not find enough justification in doing so because of the following reasons:

- Most of the paragraphs of the current Part-M remain unchanged, and creating a separate Part-M (light) would have produced unnecessary duplication.
- This duplication would have meant duplicated work when keeping both documents updated.
- It would also have meant that owners/operators trying to move from non commercial air transport to commercial air transport would have needed to learn two separate regulations trying to identify the differences between each other. This difference is much more evident having a single regulation with some articles split in commercial and non-commercial air transport (with an appropriate weight limit).

**Despite almost everyone asking for a light version of Part M, EASA has decided for regulators convenience reasons not to have one, without any flight safety case proving this to be relevant. This outrageous disregard for sports and recreational aviators is almost unbelievable. Instead EASA believes that all aircraft from 2730 kg down to 450 kg need one set of rules. Part M is full of jargon and most of it has no relevance to sporting and recreational aviation. Understanding Part M will be considerably more difficult and costly than carrying out the maintenance on the aircraft. Regulation should never be imposed on aviation without compelling reasons of flight safety or environmental protection. Here there are no such reasons other than regulators internal convenience overriding all.**

response

*Noted*

Refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES.

comment

653

comment by: *B Tansley*

Page 6 Para 12. Not producing a separate Part M(Light) for light aircraft not involved in Commercial Air Transport may be easier for the Agency but continues to impose unnecessary cost and regulation on the owners/operators

of light aircraft/sport aircraft/general aviation. These need to have a much smaller and simpler document that covers only those regulations appropriate to them, so that they do not have to wade through a lot of information irrelevant to them in order to find the information that matters ('sorting the wheat from the chaff'). Leaving matters as proposed increases the risk that a regulation is missed or misinterpreted.

response *Noted*

Refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES.

comment 677

comment by: *Royal Swedish Aero Club*

Page 6, paragraph 12

In producing NPA 2007-08 EASA has clearly dismissed the widely held view in industry that there is a need to develop proportionate standardizing regulation under a Part M 'Light'. There is no such thing as 'one size fits all' regulation. The reasons given in IV-12 of NPA2007/08 for a single Part M regulation are those for the convenience of the regulator, and not for the satisfactory and economic function of the leisure flight industry and the pilots flying these aeroplanes. They are minor, secondary issues compared to continuing effective and economic operation of all light and sport aircraft. It is also clear, that when EASA has chosen 2730 kg to be the upper limit for a slightly more relaxed regulation in certain parts, this limit is all too high to admit a significantly more light regulatory work, suitable for light/sport/GA.

While M017 and M005 have to some extent relieved the processes associated with compliance with Part M the basic distribution of roles tasks and responsibilities remains totally unsuitable for light/GA, driven as it is by informed interest in self preservation, do not require the full complexities necessary to regulate complex commercial transport systems with all the public liability and commercial issues that it entrains.

The Royal Swedish Aero Club would wish EASA to carry out an in-depth RIA to review this the regulation, not only considering the issues raised in this NPA, but also the justification of the regulatory complexity of this Part, which is overbearing in our view.

Justification

In light/sport/GA aviation a lighter regulation has, over several decades, been demonstrated to be effective and specifically SAFE, as exemplifies by the record of many national association such as the Royal Swedish Aero Club. The separate limbs of the regulation as set out in Part M (Sub Parts F,G and I) complicate and diversify these roles in an unstructured manner, requiring owners (usually private individuals) to engage commercially with a multiplicity of regulatory bodies many of whom are themselves overburdened with external assessment and quality overviews inappropriate to the level of their activity and irrelevant to safety. The additional expenses of these measures are considerable and directly to the detriment of the development of these industries.

response *Noted*

Refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES.

comment

679

comment by: *Royal Swedish Aero Club*

Page 6, paragraph 13

Licensing of engineers. - As written, this draft of Part M unreasonably diminishes the role and privileges of individual licensed engineers. The entire document remains oriented wholly towards the imposition on owners to engage (several) professionally qualified ORGANISATIONS, eg. Sub Part F for maintenance, CAMO for airworthiness and NAA for ARC issue (in the general case). Maintenance and many of the CAMO functions could equally be carried out by qualified licence engineers provided his responsibilities and privileges are properly recognised such as in M.A.

#### Justification

The requirement to engage with organisations with approvals will inevitably drive up costs to those organisations, NAA's and owners alike, without benefit top safety or regulation efficiency. The only beneficiaries to this approach will be lawyers and Professional Indemnity Insurance companies.

Sweden holds its Licensed Engineers in good repute, but this situation does not appear to be reflected across Europe. Those European nations who have less regard and/or less control over their licensed engineers should be advised to apply appropriate legislation rather than diminish the role of these individuals in the pan European rule. Without doing this, Part M and associated personnel licensing initiative such as Part 66 will be ineffective and the whole regulation will become an expensive bureaucratic exercise to the detriment of sport/GA aviation.

response

*Partially accepted*

Additional privileges have been provided in this NPA to Qualified engineers for the category of aircraft of 1000 KG and less MTOM.

Refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES, and to the consolidated version of Part-M at the end of this CRD.

<b>A. Explanatory Note - IV. Content of the draft opinions and the draft decision</b> <b>- B) Envisaged changes resulting from Task M-017</b>	p. 7-13
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comment

5

comment by: *Mike Godsell*

M.A.901 Aircraft airworthiness review. Page 11 paras 39 & 40 & page 119(d)

This is very welcome as it gives owners more choice. Also it opens up the possibility of using a CAMO based in another member state, where the regulatory costs are lower. Such a freedom would introduce an element of competition which could persuade some NAAs to reduce their exorbitant charges. There would be a very positive economic effect in those member states where engineering employment prospects are low.



However ref M.A.302 Maintenance programme (b) Pages 98 & 99  
and page 8 paras 17 & 19

"Where the NAA of the CAMO is not the same as the NAA of the state of registry."

In my opinion when a maintenance programme has been approved by the NAA of one member state, it should be accepted by the NAAs of the other member states without need for formal agreement.

This would facilitate the "indirect approval procedure" on a European basis rather than within narrow national boundaries. Also it would remove the opportunity for yet more NAA charges.

Two practical examples of how these proposals could work:

A UK based CAMO could use a maintenance programme approved by the French GSAC in order to issue an ARC for a French registered aircraft based in UK.

Equally a UK registered aircraft might wish to use a CAMO based in another member state, where the regulatory costs are lower than the UK. (If the UK CAA refused an M1 agreement with the NAA of the other member state this might not be possible, under the present rules)

Thank you for the work you are doing to reduce the regulatory burden on GA.

Sincerely

Mike Godsell

response

*Not accepted*

The approval of Maintenance Programmes is the responsibility of the Member State of Registry (in some cases the Member State of the operator). As long as the aircraft does not change the registry or operator, this maintenance programme already approved can be used by any CAMO managing that aircraft.

However, if there is a change of registry or operator, the maintenance programme will need to be approved again because some tasks may be different (different operational environment ....)

comment

*11*

comment by: *SAMA Swiss Aircraft Maintenance Association*

Section 15, definition of complex aircraft: we do not have a strong view on whether a reasonable definition/weight limit would be 2730 or 2000 Kg MTOM, although we think that there are non complex aircraft even above 2730 Kg. The important point, from the point of view of understandability/practicability, is that the same limit shall be used in all respects (e.g. also MDM.032, licences, etc).

Section 18: It is helpful to clarify that (airworthiness) responsibilities are not necessarily limited to the classic NAAs, that other competent bodies may be designated. The argument must be competence. Particularly in smaller states, it is neither reasonable nor possible for the NAA to have all competences in-house and current, particularly if a specific competence is only sporadically needed. The principle that available competences outside of the administration may/shall be used should be more strongly ported by EASA. The same remark

will be valid for operational and other regulatory sectors.

Sections 52 and 53: The arguments to reject acceptance of FAA AC 43-13 and FAA 8130-3 are formal considerations, not safety concerns. At the same time, EASA proposes to create equivalents or simplifications at a later time. Under these circumstances, it would be helpful to state that, until such equivalents are in force, existing national regulations and procedures are accepted.

response *Partially accepted*

Harmonizing the weight to 2000Kg would mean an unnecessary burden because many aircraft would not be eligible for the reduced requirements introduced in this amended Part-M (those between 2000 and 2730 Kg). The current text already includes 2730 Kg as the limit for pilot owner maintenance. In addition, there is not a significant difference on how to manage aircraft of 2000 Kg and aircraft of 2730 Kg.

Harmonizing the weight to 2730 Kg would mean to include in the B3 license aircraft which are significantly more complex in terms of maintenance (pressurization, more complex avionics systems, etc). This would mean to significantly increase the level of training, which is opposite to the objective of the task.

However, balloons of any size have been included in the alleviations provisions.

Regarding your comment on the responsibilities of the NAAs, please refer to AMC M.1.

Regarding your comment on AC43-13 and 8130-3, please refer to the changes introduced in AMC M.A.613(a) and AMC 145.A.50(a), and to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment 18

comment by: *Ted Norman*

This is typical of the bureaucratic approach to light aircraft maintenance. It is your decision that a modification can only be decided by a Part-21 design organisation even by an engineer with a degree!

You have no evidence that many FAA repair stations will seek Part -145 approval. One I spoke to said that they would not do it as they didn't need the hassle and expense due to the small number of requests they get from Europe, that because our national authority's have more or less destroyed light aviation in the EU.

The rejection of the FAA AC43-13 and FAA8130-3 is frankly incredible. How will we recertify accredited parts that are designed to be fitted to US designed and produced Aircraft. I believe that the many aircraft on the N register already in Europe is an embarrassment to the various NAA's. I can only see it increasing if you follow this path. Once again bureaucratic nonsense you need to sort this out urgently.

response *Partially accepted*

Refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES, and to the consolidated version of Part-M at the end of this CRD.

comment	<p>24 <span style="float: right;">comment by: <i>Enrico GIANOTTI</i></span></p> <p>1) The changing to the definition of "complex aircraft" will be reflected in the other regulations (i.e. M.A. 201 (f) or Part 66)?</p> <p>2) The changing from 5.700 kg to 2.730 kg will take care of a grace period to allow the implementation of the new requirement?</p>
response	<p><i>Noted</i></p> <p>Please note that we are not defining "complex" in this NPA (the definition of "complex aircraft" will be included in the new Basic Regulation and will be a unique definition for all areas of the regulation).</p> <p>What we are doing is removing the term "complex aircraft" from Part-M and introducing alleviations linked to the weight of the aircraft.</p> <p>In order to see the transition provisions for the implementation calendar, please refer to the Attachment 1 to the CRD in paragraph GENERAL ISSUES.</p>
comment	<p>48 <span style="float: right;">comment by: <i>NHAF Technical committee</i></span></p> <p>Ref. page 9, § 26: For safety reason, if a subpart F org. should be allowed to subcontract specialized services we propose that the serviceprovider shall be located in the same memberstate. This will do it easier to access the provider to check for quality.</p>
response	<p><i>Not accepted</i></p> <p>Restricting the contracting services to the Member State of the Subpart F is against of the common market principles.</p> <p>In addition, organisations in small Member States may find very difficult to find such services.</p>
comment	<p>66 <span style="float: right;">comment by: <i>Dutch gliding association</i></span></p> <p><u>Rejected changed.</u></p> <p>-</p> <p>According the NPA there was legal basis to accept FAA AC 43-13 as an acceptable method for inspection, repair and modification. Due to lack of maintenance data, especially for old gliders, a lot of gliders will be grounded, because a release to service can not be issued without reference to maintenance data.</p> <p>The EASA will develop a document similar to AC 43-13.</p> <p>As an interim solution FAA AC 43-13 or similar documents must be adopted or the implementation of Part M for non-commercial aircraft must postponed, because is not acceptable that gliders a grounded due to lack of maintenance data.</p>
response	<p><i>Partially accepted</i></p> <p>Refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>

comment

119

comment by: *European Sailplane Manufacturers*

The European sailplane manufacturers appreciate and applaude emphatically the work of the EASA rulemaking activities M.017 and M.005 which resulted in this NPA 2007-08.

The general feeling within the gliding community is still very ambivalent and sceptical about the introduction of Part M which is seen as a new and complicated new regulation not directly leading to a safety improvement regarding continuing airworthiness.

Reason for this feeling of the operators is the diversity of the maintenance environments in the EASA member states which is not considered as a burden but as a proof that there are many ways towards safe operations.

As now everybody is forced to change to new rules everybody asks what his benefits will be. The improved situation for cross-border activities (selling/buying internationally, maintenance in another state, etc.) is only interesting for a small minority all other operators face a change which always creates trouble / effort / time & money and is viewed therefore as a thread and not as an improvement.

Because the resulting frustration within the sporting community might lead to loss of membership (and accordingly loss of customers) this situation is carefully observed by the manufacturers.

Insofar any change within the Part M regulation which aims to alleviate the situation for recreational aviation is welcomed very much by the sailplane manufacturers.

response

*Noted*

Refer to the different explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment

120

comment by: *European Sailplane Manufacturers*

Time scale of the introduction of possible changes resulting from NPA 2007-08:

EASA organised several "Part M workshops" where it was explained that any possible changes to the regulations will come into force possibly not before June 2008 whereas Part M shall become obligatory for all aviation activities until end of September 2008.

EASA already explained at these workshops:

start of quote ....

In view of the envisaged schedule:

<!--[if !supportLists]-->• <!--[endif]-->Organisations will likely withhold their application for M.A. Subpart F, Subpart G and Subpart I approval until the envisaged changes are approved by the Commission.

<!--[if !supportLists]-->• <!--[endif]-->Competent Authorities will probably not be able to complete the corresponding investigations and issue the approval certificates before 28 September 2008.

<!--[if !supportLists]-->• <!--[endif]-->There will be a need to consider some transitional arrangements which may include:

Possible grandfathering measure to facilitate issuing of approvals to organisations already performing similar tasks under national regulations, and/or

Postponing the entry into force of those provisions that can not be reasonably implemented before 28 September 2008.

<!--[if !supportLists]-->• <!--[endif]-->Such arrangements can not be elaborated until there is a better view of the implementation difficulties.

... end of quote

The European sailplane manufacturers definitely share the view that the tight schedule between possible introduction of NPA 2007-08 changes and 28.9.2008 will result into problems.

But contradictory to the opinion of EASA that only some transitional measures or some kind of grandfathering will suffice the manufacturers have another proposal:

**Within the limitations stated in the NPA 2007-08 that is for aircraft up to MTOM of 2730 kg not used in commercial air transport the owner of an aircraft should have the choice for conducting the tasks for continuing airworthiness between the regulations in EU 2042/2003 (or later versions; i.e. Part M) or existing national regulations.**

Rationale:

This proposal has no disadvantage for any stakeholder:

The owner has a free choice; he can decide between standardised maintenance according to Eu regulations which will make cross-border operation easier for him and might be of financial advantage in case of selling his aircraft; or he decides for existing rule which he knows and which have proven to be perfectly OK and which might stay in the long run more affordable.

The NAA are forced to keep the national rules existing and running anyway for the Annex II aircraft so the disadvantage of two parallel systems exists for them in every case.

Maintenance organisations existing in the non-commercial air-transport sector have an old national approval anyway - so they have no problem to continue under old national regulation - for Annex II aircraft this has to continue

anyway. If organisations apply (or already have applied) for the new EU regulations) they might win an additional market segment but they can decide themselves if the additional effort is justified from the market share they might win.

Maintenance organisations in member states where a quick approval of Subpart F / G organisations runs not smooth and cannot meet the September 2008 date will not stand before a factual shutdown because they still have the old approval and therewith the option to continue their work.

**The sailplane manufacturers cannot see any single reason why a choice between old national rules and new EU regulations for continuing airworthiness should be of disadvantage for anybody!**

(And the big advantage for everybody is the end of the already existing time schedule dilemma...)

response

*Not accepted*

Giving the option to apply national rules or EASA rules for the same type of aircraft would result in:

- 1) Obligation for the competent authority to establish two different systems. It is correct your remark that the competent authority has to keep the national system running for Annex II aircraft, however the number of aircraft is much more limited than if they have to cover also aircraft outside Annex II.
- 2) Maintenance organisations needing two different approvals (one for aircraft following EASA regulations, another for aircraft following national rules) for aircraft outside Annex II.
- 3) Two different licensing systems for certifying staff for the same type of aircraft.
- 4) Different requirements for occurrence reporting.
- 5) The objective of having a standardised level of safety and a common market would be lost.
- 6) Impossibility to run efficiently any of the two systems because some organisations will decide to go one route and other organisations will decide to go the other route, with unpredictable consequences in the common market.

Regarding your concern about organisations not meeting the deadline of 28 September 2008, the CRD proposal (Article 4 of EC2042/2003) is to deem current national maintenance organisations as Subpart F organisations, with 1 year to correct the differences with new regulations. This means that these national organisations can continue working with their current approval until 28 September 2009.

comment

130

comment by: FFVV

On behalf of FFVV French Gliding Union

AMC MA 302 - Manufacturer maintenance manual should be considered as the best generic maintenance programme, then no specific generic programme

should be required but only an up to date manufacturer maintenance manual should be presented by the applicant.

Basic Programme could be just a skeleton, or a checklist of required data.

Data should be produced in the maintenance programme of a particular glider only when such a maintenance programme is presented to NAA for approval, before undertaking maintenance tasks on this glider.

response *Noted*

In fact, the programme recommended by the manufacturer can be considered as the "baseline" or "general" maintenance programme. However, it need to be customised for the particular configuration of the aircraft (possible new equipment installed or removed) and to the operating conditions (may need some additional tasks).

comment

143

comment by: *European Sailplane Manufacturers*

M.A.302 Maintenance programme

The sailplane manufacturers propose herewith an addition to the options how a maintenance programme could be approved:

**The maintenance programme approval according to M.A.302 should additionally be possible by the TC holder of the according aircraft. This should be at least possible within the scope of NPA 2007-08, i.e. for aircraft up to MTOM of 2730 kg not used in commercial air transport.**

Rationale:

A TC holder has per definitions the means to decide if a maintenance programme is technically feasible (a design organisation Subpart J or ADOA).

Additionally he has definitively the goal that his products are been operated and maintained in a rational and safe manner.

If the TC holder is not willing to approve a maintenance programme the existing ways are still open.

But if he is willing to grant such approvals this could help very much to ease the burden of approval of several tens of thousands maintenance programmes in the member states.

The owners would have an additional option to the the maintenance programme approved.

The NAA would have less burden with a task for which not all NAA are personally equipped.

The CAMO would still be able to approve maintenance programmes under the controlled environment but for non-controlled environment they could approach the TC holders for quick approval. This would lead to an even increased exchange of operation experience between maintenance organisations and TC holders which would improve safety furthermore.

In case of foreign aircraft (the TC holder does not hold the TC of that particular

aircraft) nothing new happens: such an approval must come from the competent authority or a CAMO when in controlled environment.

response *Partially accepted*

The TC and STC holders are responsible for issuing instructions for continued airworthiness and associated limitations. The Maintenance Programme developed by the CAMO aims to demonstrate how maintenance is organised by the operator or the owner. Such maintenance programme shall be reviewed periodically to check that it still meets the TC and STC holders instructions. Approval of maintenance programme is not the responsibility of TC holders but of the competent authority, this is an ICAO requirement.

The TC holder does not know the configuration of the aircraft in relation to possible modifications incorporated, which may need additional maintenance tasks. In addition, the TC holder is not aware of the operating environment of the aircraft.

The regulation provides also the possibility for a CAMO managing an aircraft to approve the maintenance programme under an indirect procedure.

In order to alleviate the burden on NAAs, the NPA proposes also that the Maintenance Programme may be approved by a CAMO even if this CAMO does not usually manage the aircraft. See M.A.302(c) in consolidated version.

comment *145*

comment by: *John Tempest*

Comment on Section B) i) 15.

It is essential that any limiting mass figure (for example 2000 kg MTOM, 2730 kg MTOM, etc) used should align with forthcoming systems for airworthiness and continued airworthiness, as being discussed in MDM032.

response *Not accepted*

Harmonizing the weight to 2000Kg would mean an unnecessary burden because many aircraft would not be eligible for the reduced requirements introduced in this amended Part-M (those between 2000 and 2730 Kg). The current text already includes 2730 Kg as the limit for pilot owner maintenance. In addition, there is not a significant difference on how to manage aircraft of 2000 Kg and aircraft of 2730 Kg.

Harmonizing the weight to 2730 Kg would mean to include in the B3 license aircraft which are significantly more complex in terms of maintenance (pressurization, more complex avionics systems, etc). This would mean to significantly increase the level of training, which is opposite to the objective of the task 66.022.

comment *159*

comment by: *Armageddon Associates*

a) M.A.302

The proposed changes are both sensible and realistic.

e) M.A.504



It must be remembered that such items may well be the property of the aircraft owner. If he wishes to retain these under his own arrangements this must be allowed. Otherwise he might claim theft or restraint of his own property.

f) M.A.604 to y) Appendix VII (inclusive)

All the proposed changes are seen to be neutral or an improvement on what was originally proposed.

However there would certainly appear to be a huge amount of mindless and needless bureaucracy involved. This leading to a considerable increase in cost with no real safety benefit. There is no such bureaucracy evident in the FAA maintenance system yet their's is an acceptably safe one.

An increase in cost for owners will be hard to absorb and might well lead to a marked reduction in pro-active preventive maintenance due to the limits on an owners financial budget. It is this element of maintenance that is so valuable in continuing airworthiness. A very real safety issue.

There is an apocryphal tale about the English Civil War in the 17th century which relates that "for want of a nail the kingdom was lost". It also applies to aviation safety in the 21st century.

Additionally a high proportion of existing maintenance organisations approved by their NAA's are owned and managed by engineers in middle age. Many will certainly throw up their hands in surrender at the prospect of these sweeping changes and elect to retire. With their retirement will go an enormous amount of really valuable expertise. This might well lead to a reduction in safety.

One ridiculous feature of your proposals is the need to separate sub parts (f) and (g) approved organisations. This leading to useless duplication of effort and cost. I fail to see any need to separate these functions especially in the continuing airworthiness approval for non-commercial light aircraft. There are no adverse safety implications in having the two functions combined in a single organisation. However the saving in cost for the organisation also for both the NAA and EASA would be very worthwhile.

Changes rejected

The rejection of FAA AC 43-13 seems to be a ridiculous decision and will lead to considerable nugatory expenditure by EASA to essentially duplicate this time tested publication. The European tendency to reject anything not produced in Europe is a classic case of the "NIH" or Not Invented Here syndrome. Can you really afford to do this since, in the end, it is OUR money, either direct or through taxation, that you are spending. No safety case established.

My comments also apply to the situation with FAA 8130-3 documentation. If it is good enough to fit on a US registered aircraft then why not one registered in the EU. No safety case established.

response *Partially accepted*

a) Comment welcome

e) M.A.504 has been amended in order to allow the transfer of unserviceable components to the owner under certain conditions.

For other comments, refer to explanations provided in Attachment 1 to this CRD in paragraph GENERAL ISSUES, and to the consolidated version of Part-M at the end of this CRD.

comment	<p>187 <span style="float: right;">comment by: <i>Bill Taylor</i></span></p>
	<p>Page 13 of the NPA covers rejection of a number of changes to Part M, as proposed in 2005. Of particular concern is the refusal to accept the use of component parts supplied from the USA on FAA Form 8130-3. This decision is shortsighted and works wholly counter to the best interests of aircraft safety and continued airworthiness.</p> <p>Whilst the reasons cited in justification of the decision are legitimate, and it is accepted that the MDM 032 working group will propose some means of the use of parts without EASA Form 1, to not allow the use of component parts released on FAA Form 8130-3 is wholly wrong. Whether Europe likes it or not, the bulk of light aircraft in use in Europe have the USA as their State of Design and certification. Parts manufactured or overhauled in accordance with the procedures of the State of Design must continue to be acceptable for use in aircraft located in Europe just as much as the original new-build aircraft was found acceptable in the first instance. Logic dictates that if the parts are not acceptable then the aircraft cannot be acceptable. The reality of the situation is that if EASA fails to accept the use of parts with FAA Form 8130-3 release, aircraft owners and maintenance organisations will use such parts but will not make a record in the aircraft log book. Such practices cannot be condoned but they are widespread today in cases where the Regulator does not accept the reality of the situation.</p> <p>Once again, the EASA proposals on this subject show that the Agency has a remote and limited understanding of what happens in the real world. Here is an opportunity to regularise what is happening and bring things out into the open. Instead, this decision will force a lot of maintenance activity underground, with the consequent adverse effect on safety. This will be especially so in the areas of light aviation, gliding etc, where the EASA proposals do nothing more than add substantially to costs without any proven benefit in safety terms. This whole decision runs counter to the best interests of aircraft safety and it should be reversed.</p>
response	<p><i>Partially accepted</i></p> <p>Refer to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of the CRD.</p>
comment	<p>221 <span style="float: right;">comment by: <i>Sarah Kelman</i></span></p>
	<p>I understand that the UK CAA and BGA do not support the rejection of approval of FAA certified parts. This will require owners to recertify existing parts with FAA approval AT THEIR OWN EXPENSE.</p>
response	<p><i>Partially accepted</i></p> <p>Refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.</p>
comment	<p>247 <span style="float: right;">comment by: <i>British Gliding Association</i></span></p> <p>Background Information, Page 13, Para 51-33</p>

The BGA strongly supports the CAA (UK NAA) and others position that the rejection by EASA of both FAA AC43-13 (guidance material) and FAA 8130-3 (approval parts) is totally unacceptable. The parts issue in particular will lead to unnecessary costs and bureaucracy and that, post 9/2008, owners will be forced to re-certify already accredited US parts for fitting on US aircraft, at their own expense. EASA must find a way, as a matter of urgency, to accept in a acceptable legal form the relevant FAA texts within the EU. Otherwise there will be a major outcry from the aircraft owner community.

#### Reason Text

The reasoning given in the NPA 2007/08 is a wholly bureaucratic convenience and ignores the practicalities of day-to-day operation. None of the bullet points given in para 53 actually addresses the issue. Further promises of developments in the future via MDM032 only increases the impression that the EASA bureaucracy is incapable of coming to terms with impending situation.

response *Partially accepted*

Refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment 270

comment by: DAeC LV NRW e.V.

39 and 40

DAeC LV NRW e. V., as an approved CAMO welcomes the changes which will allow a CAMO to issue the ARC without the need to have the aircraft managed by the CAMO in the controlled environment and without the obligation for the maintenance performed only by approved maintenance organisations, however:

It is understood that it is planned to authorise competent authorities (e.g. NAA, National Aviation Authority) to perform airworthiness reviews itself. This means that a competent authority is in competition with a CAMO which is dependant on the approval by that particular authority.

Considering the difficult economic situation and prospects of the General Aviation in Europe the situation may come up that a competent authority makes it very difficult or extreme expensive for a CAMO to get the authorisation for airworthiness reviews and that finally only the competent authority is on the market. On the other hand it should be a common idea to reduce the burden of regulation and to strengthen the responsibility of the individual in Europe.

There is no doubt that an authority is anytime free to scrutinize a CAMO and to join airworthiness reviews as a necessary qualification control or in case of safety problems.

response *Not accepted*

The intention of the proposal is to provide flexibility to the owner to decide whether he prefers to go to a CAMO or to the authority, mainly because in some cases it may be difficult to find a CAMO.

However, the same that someone can say that the authority may make difficult to a company to get an approval (because the authority may want to retain the

business), another person may say that the authority may make it really easy (because the authority may not want to cope with airworthiness reviews or because they don't want to have additional personnel to do it).

comment

311

comment by: *peter GRAY*

P6 para13

I welcome the suggestion that the functions of the engineers servicing light aircraft and gliders be specifically tailored to the purpose. I believe that CAMO and subPart F functions could be amalgated and delegated to the service engineers so that pilots have but one point of contact for both engineering and airworthiness matters.

response

*Noted*

CAMO and Subpart F approvals can only be granted to organisations complying with the applicable requirements (1-man organisations are possible). However, for non-large aircraft, maintenance can be performed by independent engineers, except for Complex tasks in Appendix VII. In addition, for ELA1 aircraft, independent certifying staff can issue a recommendation for an Airworthiness Review Certificate under certain conditions.

comment

319

comment by: *Tim FREEGARDE*

[52] There is no reason why a qualified maintenance engineer should not be trusted to decide whether a repair is minor or major; this is therefore no reason not to incorporate FAA AC43-13 as an acceptable method for repair, inspection and modification.

[53] There is no reason why acceptance of the FAA 8130-3 should require bilateral agreements or reciprocal acceptance of an EASA form 1, and nothing to prevent EASA from unilaterally adopting acceptance. It would appear that EASA is basing its regulatory policy, at least in part, upon institutional pride or empire building.

response

*Partially accepted*

Refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES, and to the consolidated version of Part-M at the end of this CRD.

See changes to AMC M.A.613(a).

comment

320

comment by: *Tim FREEGARDE*

Throughout this proposal, EASA concentrates on the bureaucratic administration of maintenance and its quality assurance by organizations at the expense and neglect of the skilled and experienced engineers who actually perform it. By emasculating these engineers, and introducing further layers between the engineers and the aircraft, owners/pilots and certification, EASA risks both reducing the effectiveness of communication between owners/pilots and engineers, and creating an engineering environment that drives significant numbers out of the profession. The results will be a significant cost in time,

response	<p>money and aircraft availability for owner/pilots, and reduced exchange of information concerning aircraft performance and good practice. All these will be detrimental to the overall safety of light aviation.</p> <p><i>Noted</i></p> <p>Refer to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES, and to the consolidated version of Part-M at the end of the CRD.</p>
comment	<p>332 <span style="float: right;">comment by: <i>Sinclair Smith</i></span></p> <p>Part M. Art/Nr/Chapter - NPA a 1V - Content of Draft opinion</p> <p>The parts approval proposal is unacceptable. More bureaucracy. What is the point of owners having to re-certify already accredited parts. the proposal takes no account of the practicality of day to day operation.</p>
response	<p><i>Partially accepted</i></p> <p>M.A.502 has been revised in order to allow some additional maintenance on components to independent certifying staff. However, this maintenance shall be subject to aircraft release procedures and will not be eligible for the issuance of a Form 1.</p> <p>AMC M.A.613(a) has been amended in order to allow the issuance of a Form 1 for components maintained in the USA and Canada under certain inspections and verifications, by Subpart F or Part-145 organisation that do not hold a "C-rating".</p>
comment	<p>356 <span style="float: right;">comment by: <i>UK CAA</i></span></p> <p><b><u>PARAGRAPH:</u></b> Page 13 item 53, rejected changes</p> <p><b><u>COMMENT:</u></b></p> <p>In response to the Agency's comments clarifying the mechanism by which used serviceable components that have a valid authorised release certificate acceptable to the competent authority other than a Form 1 that are held in stock by maintenance organisations prior to 28 September 2008 (and in particular those which have a valid FAA 8130-3 issued by an FAA repair station not approved under Part 145), may be issued with an EASA Form 1, we propose the following revision to AMC M.A.613 (a).</p> <p><b><u>JUSTIFICATION:</u></b></p> <p>The Agency's proposal does not account for the apparent lack of component maintenance capability for some aircraft types within the Community or allow for existing serviceable stock items to be used up without excessive investigation. The proposal below adopts the methodology used by the Agency for accepting new components in storage before the implementation date for Part 21.</p> <p><b><u>PROPOSED TEXT:</u></b></p> <p><b>AMC M.A613(a) paragraph 2.8. Used aircraft components maintained by organisations not approved in accordance with M.A. Subpart F.</b></p>

2.8.1. For components in storage without an EASA Form 1 prior to the final implementation date of Part M that have a valid Authorised Release Certificate acceptable to the competent authority at that time may be issued with an EASA Form 1 by an appropriately rated maintenance organization approved under M.A. Subpart F. The EASA Form 1 should be issued in accordance with subparagraphs 2.5.1 (a),(b) and 2.5.2. which should be included in a procedure within the maintenance organisation manual.

2.8.2. For used components maintained by a maintenance organisation unapproved under M.A. Subpart F, *after the final implementation date of Part M*, due care should be exercised before acceptance of such components. In such cases an appropriately rated maintenance organisation approved under Part M subpart F or Part 145 should establish satisfactory conditions by:

(a) dismantling the component for sufficient inspection in accordance with the appropriate maintenance data,

(b) replacing all service life limit components when no satisfactory evidence of life used is available and/or the components are in an unsatisfactory condition,

(c) reassembling and testing as necessary the component,

(d) completing all certification requirements as specified in M.A.613

response *Partially accepted*

AMC M.A.613(a) has been amended in order to allow the issuance of a Form 1 for components maintained in the USA and Canada under certain inspections and verifications, by Subpart F or Part-145 organisation that do not hold a "C-rating".

In addition, AMC M.A.501(a) has been amended to accept national release documents during a period of time.

See the consolidated version in this CRD.

comment 388

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

39 and 40

DAeC welcomes the changes which will allow a CAMO to issue the ARC without the need to have the aircraft managed by the CAMO and without the need for having maintenance performed only at approved maintenance organisations. However this change of the regulations is contradicted by M.A.201 (i) in those cases where the Member State requests the operator to hold a certificate for its operational activities. In some Member States the operators are requested to hold a certificate for flight training even in light aviation (e.g. sailplanes). DAeC suggests introducing a weight limit as threshold in M.A.201 (i).

Changes rejected:

52

The use of FAA AC 43-13 was rejected by formal reasons. DAeC believes that AC 43-13 can be used as approved maintenance data if a decision was taken to classify a repair as minor according to Part 21 procedures in each case. This

would reduce cost and effort to develop repair data for standard cases. DAeC suggest to come up with a list of minor repairs covered by AC 43-13 or a similar document during the envisaged rulemaking task starting in 2008.

response *Partially accepted*

M.A.201(i) has been modified in the proposed consolidated version by referring to the "case of commercial operation other than commercial air transport" instead of "operators being required by NAA to hold a certificate for their operations".

Regarding AC43.13, see the explanation in the Appendix 1 to this CRD paragraph GENERAL ISSUES.

comment 415

comment by: *IAOPA Europe*

Page 13 of the NPA covers rejection of a number of changes to Part M, as proposed in 2005. Of particular concern is the refusal to accept the use of component parts supplied from the USA on FAA Form 8130-3. This decision is short-sighted and works wholly counter to the best interests of aircraft safety and continued airworthiness.

Whilst the reasons cited in justification of the decision are legitimate, and it is accepted that the MDM 032 working group will propose some means of the use of parts without EASA Form 1, to not allow the use of component parts released on FAA Form 8130-3 is wholly wrong. Whether Europe likes it or not, the bulk of light aircraft in use in Europe have the USA as their State of Design and certification. Parts manufactured or overhauled in accordance with the procedures of the State of Design must continue to be acceptable for use in aircraft located in Europe just as much as the original new-build aircraft was found acceptable in the first instance. Logic dictates that if the parts are not acceptable then the aircraft cannot be acceptable. The reality of the situation is that if EASA fails to accept the use of parts with FAA Form 8130-3 release, aircraft owners and maintenance organisations will use such parts but will not make a record in the aircraft log book. Such practices cannot be condoned but they are widespread today in cases where the Regulator does not accept the reality of the situation.

Once again, the EASA proposals on this subject show that the Agency has a remote and limited understanding of what happens in the real world. Here is an opportunity to regularise what is happening and bring things out into the open. Instead, this decision will force a lot of maintenance activity underground, with the consequent adverse effect on safety. This will be especially so in the areas of light aviation, gliding etc, where the EASA proposals do nothing more than adds substantially to costs without any proven benefit in safety terms. This whole decision runs counter to the best interests of aircraft safety and it should be reversed.

response *Partially accepted*

Refer to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment 460

comment by: *Malta Department of Civil Aviation*

The regulation shall be changed such that incorporation of documents such as AC43-13 or equivalent could be possible, thus eliminating the obligation to rely on a Part-21 DOA which in many cases it is hard to get access to, for geographical, financial and practical reasons.

response	<i>Partially accepted</i> Refer to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.
comment	496 <span style="float: right;">comment by: <i>European Gliding Union (EGU)</i></span> 39 and 40 EGU welcomes the changes which will allow a CAMO to issue the ARC without the need to have the aircraft managed by the CAMO and without the need for having maintenance performed only at approved maintenance organisations. However this change of the regulations is contradicted by M.A.201 (i) in those cases where the Member State requests the operator to hold a certificate for its operational activities. In some Member States the operators are requested to hold a certificate for flight training even in light aviation (e.g. sailplanes). EGU suggests introducing a weight limit as threshold in M.A.201 (i).  Changes rejected: 52 The use of FAA AC 43-13 was rejected by formal reasons. EGU believes that AC 43-13 can be used as approved maintenance data if a decision was taken to classify a repair as minor according to Part 21 procedures in each case. This would reduce cost and effort to develop repair data for standard cases. EGU suggest to come up with a list of minor repairs covered by AC 43-13 or a similar document during the envisaged rulemaking task starting in 2008.
response	<i>Partially accepted</i> Refer to reply to comment 388.
comment	523 <span style="float: right;">comment by: <i>Damian LE ROUX</i></span> Applying commercial regulation to non commercial aircraft will cause massive expense and inconvenience. Already EASA is making my life more difficult than it used to be, this will make it much worse.
response	<i>Noted</i> Refer to the different explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES, and to the consolidated version of Part-M at the end of the CRD.
comment	561 <span style="float: right;">comment by: <i>Programme Manager Europe Air Sports</i></span> The EAS detailed comments to the work of M.017 will be given when commenting the amendments starting at page 50.  EAS strongly welcomes the introduction of the concept of a baseline and generic maintenance programme.  EAS is concerned about the rejection of incorporating FAA AC 43-13 as an acceptable method for repair, inspection and modifications which apparently was caused by legal considerations stemming from Part 21.  If that is the case, EAS urgently asks to modify and amend Part 21 to allow the



application of AC 43 which is a standard document and acceptable to many NAAs. Airworthiness and safety can only benefit from such a standard document. EAS sees no reason to develop a new, European equivalent repair and mod document, AC 43 has been proven to be one of the most effective guidelines over the last 50 years.

response *Noted*

Refer to the different explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES, and to the consolidated version of Part-M at the end of the CRD.

comment 562

comment by: *Gristwood, Peter*

I would like to object to the Agency's view on Page 6 Para 12 that, for its convenience, a Part M Light is unnecessary.

Owning and operating a DR220, with MTOW of 780 kg, and which, until a few weeks ago was to have been an Annexe II type, I now find that the requirements for airworthiness are overly stringent for this, and other, types.

It seems counter-intuitive that the Agency would expect light aircraft such as mine, very close in weight and complexity to Jodel aircraft, soon to be on a Permit should have to bear a not unsubstantial cost of using CAMOs.

response *Noted*

Refer to the different explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES, and to the consolidated version of Part-M at the end of the CRD.

comment 569

comment by: *Swedish Soaring Federation*

It is regrettable that it has been rejected to incorporate FAA AC 43-13 as an acceptable method for repair, inspection and modification of light aircraft.

A document similar to AC 43-13 is needed. It would reduce cost and effort to develop repair data for standard cases.

response *Partially accepted*

Refer to the explanations provided in Attachment 1 to this CRD in paragraphs GENERAL ISSUES.

comment 590

comment by: *DULV*

Page 13 of the NPA covers rejection of a number of changes to Part M, as proposed in 2005. Of particular concern is the refusal to accept the use of component parts supplied from the USA on FAA Form 8130-3. This decision is short-sighted and works wholly counter to the best interests of aircraft safety and continued airworthiness.

Whilst the reasons cited in justification of the decision are legitimate, and it is

accepted that the MDM 032 working group will propose some means of the use of parts without EASA Form 1, to not allow the use of component parts released on FAA Form 8130-3 is wholly wrong. Whether Europe likes it or not, the bulk of light aircraft in use in Europe have the USA as their State of Design and certification. Parts manufactured or overhauled in accordance with the procedures of the State of Design must continue to be acceptable for use in aircraft located in Europe just as much as the original new-build aircraft was found acceptable in the first instance. Logic dictates that if the parts are not acceptable then the aircraft cannot be acceptable. The reality of the situation is that if EASA fails to accept the use of parts with FAA Form 8130-3 release, aircraft owners and maintenance organisations will use such parts but will not make a record in the aircraft log book. Such practices cannot be condoned but they are widespread today in cases where the Regulator does not accept the reality of the situation.

Once again, the EASA proposals on this subject show that the Agency has a remote and limited understanding of what happens in the real world. Here is an opportunity to regularise what is happening and bring things out into the open. Instead, this decision will force a lot of maintenance activity underground, with the consequent adverse effect on safety. This will be especially so in the areas of light aviation, gliding etc, where the EASA proposals do nothing more than adds substantially to costs without any proven benefit in safety terms. This whole decision runs counter to the best interests of aircraft safety and it should be reversed.

response *Partially accepted*

Refer to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES, and to the consolidated version of Part-M at the end of the CRD.

comment *619*

comment by: *JAR-Contra*

The decision to describe "complex" just by MTOM is welcome as it simplifies rules and matches practice, e.g., turbojet equipped gliders which are very easy to maintain.

response *Noted*

However, please note that we are not defining "complex" by mass (the definition of "complex aircraft" will be included in the new Basic Regulation and will be a unique definition for all areas of the regulation). What we are doing is removing the term "complex aircraft" from Part-M and introducing alleviations linked to the weight of the aircraft.

comment *626*

comment by: *British Gliding Association*

<!--[if !supportLists]-->Background Information - Para 32, Page 10 (for M.A.710 (b))

Comment Text

By way of example of the poor structuring of Sub Parts F, G and I for application to GA/Sport aviation, BGA would draw attention to the physical survey required of a CAMO in M.A.710(b) during ARC renewal. This action is the only occasion when CAMO (Subpart G) staff are required to actually visit the aircraft. In all other cases the physical functions and interventions are carried out by Sub Part F maintenance staff (or licensed engineer, or the owner

on his own authority). The regulation even accommodates the eventuality that the CAMO staff cannot actually work on the aircraft, admitting that in this cases the reviewer is a highly qualified, bureaucratic bi-stander!

This detailed requirement alone will involve thousands of man hours, and kilometres of business travel, potentially to remote locations, by CAMO staff, only to stand alongside and watch a process that is essentially a maintenance activity. While this practice is acceptable in large, centrally located CAT-type facilities, it is wholly uneconomic and unnecessary in light and sport GA. In this instance, surely the effective way to ensure the embodiment of essential modification such as AD's, is to accept the opinion of the maintaining individual/organisation, or indeed combine the two (Sub Part F and G) functions, as others are suggesting (eg. UK CAA M3 approvals). In either case the responsibility flow is assured.

*As detailed solution, BGA proposes that this clause be deleted a MA 710(b) and transferred to an appropriate position under MA 600 series regulation. However this item is given as an example only. NPA 2042/2003 remains strewn with similar examples of rules that have been created for legal and administrative convenience, not for effective and safe practice. Full restructuring is the only ultimate solution.*

response *Not accepted*

Refer to reply to comment 439.

comment

628

comment by: *Norwegian Civil Aviation Authority*

**M.A. 707(a) 1. / 2.**

The weight limits of 2730 Kg does not correlate with the WG 66.022 regarding the B3 AML. The draft NPA for this WG proposal of weight limits should be in line with this NPA.

response

*Not accepted*

Harmonizing the weight to 2000Kg would mean an unnecessary burden because many aircraft would not be eligible for the reduced requirements introduced in this amended Part-M (those between 2000 and 2730 Kg). The current text already includes 2730 Kg as the limit for pilot owner maintenance. In addition, there is not a significant difference on how to manage aircraft of 2000 Kg and aircraft of 2730 Kg.

Harmonizing the weight to 2730 Kg would mean to include in the B3 license aircraft which are significantly more complex in terms of maintenance (pressurization, more complex avionics systems, etc). This would mean to significantly increase the level of training, which is opposite to the objective of the task.

comment

629

comment by: *Norwegian Civil Aviation Authority*

**M.A. 712(f)**

The last sentence needs clarification. At the moment this can be misunderstood.

response

*Accepted*

The text has been reworded. See new M.A.712(f) in the consolidated version at the end of this CRD.

comment	<p>631 <span style="float: right;">comment by: <i>Norwegian Civil Aviation Authority</i></span></p> <p>M.A. 901(d)2.b The text "This includes M.A. 803(b) maintenance carried out and released to service according to M.A. 801(b)2 or M.A. 801(b)3."</p> <p>It is not clear that in order to be in a controlled environment the aircraft must be maintained by an approved maintenance organisation.</p> <p><b>M.A. 901(e) 2.</b> If there will not be sufficient CAMO:s with the appropriate ratings, the competent authorities will encounter huge burdens in terms of man-hour, lack of airworthiness review staff etc.</p>
response	<p><i>Partially accepted</i></p> <p>1) Pilot owner maintenance / M.A.901(d)2.b: Maintenance carried out by a Pilot-owner in accordance with M.A.803(b) and further released to service either by a Part-66 certified engineer or by the Pilot-owner himself, is considered as being carried out in a controlled environment. This does not need being carried out by an approved organisation. See new paragraph M.A.901(b) in the consolidated version which provide the definition of "controlled environment".</p> <p>The aircraft will remain in the controlled environment in accordance with the provision of M.A.901 (d) 2.b even if maintenance is performed by the pilot-owner within the limits of M.A. 803 and M.A. 801(b)3.</p> <p>2) M.A.901(e)2: To remove burden on the NAAs and CAMOs, alleviations have been proposed for aircraft not used in commercial air transport, to allow the CAMO managing the aircraft to extend twice the validity of an ARC issued by another CAMO or by the authority when the aircraft is in a controlled environment. See new M.A.901(f) in the consolidated version.</p>
comment	<p>638 <span style="float: right;">comment by: <i>Microlight section of Norwegian Airports Assn.</i></span></p> <p>Continuing airworthiness activities for certain aircraft included in Annex II may be undertaken by the pilot/owner. Indeed, in the case of homebuilt aircraft the entire construction from raw material may be undertaken by the pilot/owner. In many countries such aircraft may be used in limited commercial activity.</p> <p>Where comprehensive accident statistics on such aircraft are available, for example from countries such as Canada, France and the UK, it is clear that the level of airworthiness-related accident for such aircraft is very low and, in any event, not significantly higher than for aircraft for which maintenance may not be carried out by the pilot/owner.</p> <p>On the basis of the above and initial discussions with EASA staff it was anticipated that EASA would broaden the range and extend upwards the MTOM of non-complex aircraft which could operate under a similarly relaxed regulatory regime from 450 kg to 600 kg, 750 kg or even 1000 kg. It was anticipated that the output of the MDM.032 Working Group would provide the input to deliberations relating to continuing airworthiness regulations in this respect.</p> <p>Instead, the amendments to Part-M for aircraft not used in Commercial Air</p>

Transport imply no such change and the proposed implementation date for Part-M of 28 September 2008 allows neither the deliberations of MDM.032 nor the input from the associated consultation process to be taken into account in the proposed regime for ongoing airworthiness.

**At the very least the implementation of Part M for sub-1000 kg aircraft should be delayed until the final results of the MDM 032 Working Group have been delivered and the comments resulting from the associated NPA have been analysed.**

response *Noted*

Micro-light aircraft are not affected by Part-M. However the works from the group MDM 032 have been considered, and alleviations have been introduced in Part-M for aircraft of MTOM 1000Kg and below. See the Attachment 1 to this CRD (GENERAL ISSUES) detailing the changes related to the ELA aircraft.

comment *651* comment by: *Fédération Française Aéronautique*

AFFECTED PARAGRAPH:  
EXPLANATORY NOTE, Reference IV, B, ii) Unserviceable Parts:

PROPOSED TEXT/ COMMENT:

After 28 September 2008, we understood the Agency will not accept any kind of spare parts overhauled and repaired if unaccompanied without Form 1 or Form 8130-3 with dual release mention. If this procedure is strictly applied by the authorities, it will be sure that a lot of light aircrafts will be grounded.

The Agency have to know that, in many cases, US light aircraft spare parts cannot be found outside US. For many US manufacturers, purveyors or TC holders EU market is, compared to US market, marginal and not attractive. In mostly cases there are no interests to have EU agreement and even less paid fees for it.

We understand the need to apply US/EU bilateral rules but in front of this major difficulty a derogatory procedure have to be found for light aircrafts not used in commercial air transport. In our opinion, this derogatory procedure must be included in Part M regulation.

response *Accepted*

AMC M.A.613(a) has been amended in order to allow the issuance of a Form 1 for components maintained in the USA and Canada under certain inspections and verifications, by Subpart F or Part-145 organisation that do not hold a "C-rating".

comment *654* comment by: *B Tansley*

Page 13 Paras 51-53. Rejection of FAA AC43-13 & 8130-3 will cause unnecessary expense for owners of US aircraft post 9/2008. I believe that if components for foreign aircraft (not just those from USA) have been approved by the country of origin of the aircraft then they should be usable in Europe without the need for further certification. If lack of a bilateral agreement causes a problem in the USA that is up to them to sort out :- it should not be allowed to cause Europeans a problem.

response *Partially accepted*

AMC M.A.613(a) has been amended in order to allow the issuance of a Form 1 for components maintained in the USA and Canada under certain inspections and verifications, by Subpart F or Part-145 organisation that do not hold a "C-rating".

As far as the AC 43.13 is concerned, refer to the explanations in the Attachment 1 to this CRD in the paragraph GENERAL ISSUES.

comment

657

comment by: *Adolf Flüeli*

**Page 7**

Definition of complex aircrafts (aeroplanes) shall be for equally for all regulation purposes,

for licensing, certification and maintenance shall be defined and applied only one and the same category according to the aircraft categories ICAO below 5700 kg

Reason: - economies of scale for licencing, certification and maintenance

this definition shall also including and covering the categories of Gliders and Sailplanes and Powered Sailplanes in general for 5 reasons:

- non discrimination of sailplane pilots (licensing)
- enabling certification, operating and mainenance of sailplanes as DFS 230, Airspeed Horsa, Antonow A-7 etc.
- enabling future and environment friendly concepts without the need to change the whole EASA setups
- enabling EU to establish Leadership in Aviation and future Technology for the whole 21st century

posibility for exception:

for the maybe possible case, that some planes below the limit of 5700 kg will be for any reason evaluated as to be too complex, this type shall be declared & handled as an exception according to the rules for the superior category over 5700 kg.

response *Not accepted*

Although it is true that the definition of "complex aircraft" will be the same for all aspects of the Regulation (after it is defined in the new Basic Regulation), the proposed alleviations introduced in Part-M are not linked to "non-complex

aircraft" but to aircraft equal or less than 2730 Kg MTOM.

comment 658

comment by: *Adolf Flüeli*

**Page 8**

Maintenance Programm

the use of the term maintenance programm can be confusing, as the manufacturer defines the maintenance requirements and programmes in the AMM.

So it makes no sence, if every holder of an airplane also makes some maintenance - programmes for every aircraft

if the intention of this paragraph should be to assure a configuration survey of the aircraft during his lifetime after delivery from the manufacturer, the paper therefor should be named in this sence, for example Aircraft Configuration Report

The configuration baseline is in the manufactureres responsibility, also the update of the AMM

With a proper configuration baseline document form the manufacturer it should be easy manageable with some additional pages or over an internet update service via manufacturers database to update the aircraft configuration

maintenance process:  
maintenance planning, maintenance, configuration report

response *Partially accepted*

An answer to similar comment was made to comment 133 from the FFVn and we recommend you to refer to it.

This explains the different wording related to the maintenance programme to be used, either as an owner or by an organisation. However the paragraph M.A.302 does not intent to cover any aspect of aircraft airworthiness follow-up, this is why we do ot use the term "configuration survey".

comment 684

comment by: *Royal Swedish Aero Club*

Paragraphs 51 to 53 – Changes Rejected

The Royal Swedish Aero Club strongly supports the UK NAA position that the rejection of both FAA AC43-13 (guidance material) and FAA 8130-3 (approval parts) is unacceptable. The part issue in particular will lead to unnecessary costs and bureaucracy and that, post 9/2008, owners will be forced to re-certify already accredited US parts for fitting on US aircraft at their own expense.

Justification

The reasoning given in the NPA 2007/08 is wholly bureaucratic convenience and ignores the practicalities of day to day operation. None of the bullet points given in paragraph 53 actually addresses the issue. Further promises of

	developments in the future via MDM032 only increases the impression that the EASA bureaucracy is incapable of coming to terms with impending situation.
response	<i>Partially accepted</i>  Refer to the explanations in the Appendix I to this CRD paragraphs "GENERAL ISSUES" and the consolidated text at the end of this CRD.

**A. Explanatory Note - IV. Content of the draft opinions and the draft decision - C) Envisaged changes resulting from Task M-005**

p. 14-20

comment	12 comment by: <i>SAMA Swiss Aircraft Maintenance Association</i>  <u>Pilot owner maintenance, general:</u> We agree with the given considerations and proposals, except for the following aspect: A self-assessment as postulated under section 60, second dot, is likely to be effective and sufficient within group/shared ownership, namely for sailplanes and balloons, where such practices exist. It is less obvious that an individual self assessment, with only maintenance program approval and periodic airworthiness review as 'failure detectors', would prevent safety critical results. We therefore recommend that the approval of a maintenance program for engine driven aircraft with Pilot owner maintenance shall be dependent on the assessment of the capabilities by a licensed person. The assessment could easily follow the basic principles given in section 60.
response	<i>Not accepted</i>  The list (Appendix VIII of Part M) has been compiled to exclude safety critical items and no current evidence exists to support that self assessment would produce accidents caused by Pilot Owner Maintenance. Assessment of a pilot owner's competence by a maintenance organisation or a licensed person or NAA was considered to be unjustified when compared against the perceived safety benefit  In addition, as described in M.A.201 (a) & (c), the owner remains responsible for the maintenance tasks performed.  Refer also to paragraph 64 of the NPA explanatory note where an additional assessment of the pilot's capability
comment	19 comment by: <i>Ted Norman</i>  You are using the phrase pilot owner it should be pilot or owner. I understand the Owner is responsible for the maintenance of the aircraft. The owner need not be a pilot.
response	<i>Not accepted</i>  The concept of pilot-owner maintenance only applies for being both pilot and owner at the same time.  Refer to the legal definition that has been given in M.A.803 of that NPA.  For that reason, the term " <b>pilot-owner</b> " will be further used and the NPA has been corrected accordingly.
comment	29 comment by: <i>London Helicopter Centres Ltd.</i>  Pages 15 & 16 list the 'basic principles' for pilot/owner maintenance, which will



appear in the foreword to Appendix VIII.

Nowhere does it directly specify in the basic principles that the pilot owner can only certify work that he has carried out himself. It must be stressed that a pilot /owner CANNOT certify work which has been carried out by someone else. We are asking pilot owners to make an assessment of their own competence, but there is no justification to allow them to assess the competence of someone else. This MUST be stated clearly, so there can be no ambiguity.

response *Partially accepted*

If the pilot-owner is not competent for the task to be carried out, the task cannot be released by the pilot-owner.

This clarification was already specified into the list of basic principles as described in Appendix VIII. Nevertheless it has been decided to add the above sentence to the basic principles, for clarity.

The concept of pilot-owner maintenance only applies for being both pilot and owner at the same time.

Refer to the legal definition that has been given in M.A.803 of that NPA.

For that reason, the term "**pilot-owner**" will be further used and the NPA has been corrected accordingly.

comment

123

comment by: *SITEMA – Sindicato dos Técnicos de Manutenção de Aeronaves*

SITEMA is totally against this.

JUSTIFICATION.

The simple fact of a pilot (or for that matter, anyone) being able to certify himself goes against all rules of safety. When a certified person (Part-66 Licensed), with a better and longer training, a "hands-on" experience recognized by EASA through written/recorded proof of compliance, is not permitted to perform some tasks, such as, for example, a CAT A.3, being subject to sanctions in that case, what sense is there in this change?

response *Not accepted*

The list (Appendix VIII of Part M and its AMC) has been compiled to exclude safety critical items and no current evidence exists to support that self assessment would produce accidents caused by Pilot-Owner Maintenance. Assessment of a pilot-owner's competence by a maintenance organisation or a licensed person or NAA was considered to be unjustified when compared against the perceived safety benefit

In addition, as described in M.A.201 (a) & (c), the owner remains responsible for the maintenance tasks performed.

Refer also to paragraph 64 of the NPA explanatory note where additional elements to the assessment of the pilot's capability are given.

comment

146

comment by: *John Tempest*

Comment on Page 13 ii) Changes rejected.

The rejection of these two sensible proposal (Form 8130-3 and AC43-13.1b) serves to illustrate the lack of depth of the review carried out to Part M, and the lack of a cohesive plan to change design requirements in line with maintenance requirements and vice-versa in this review.

The use of AC43.13-1b, and the use of components released under a Form 8130-3, have not resulted in an unacceptable safety level in the USA.

The rejection of use of these standards because of bureacratic constraints is not a credible reason for their rejection.

The inability to use components from the USA released under a Form 8130-3 imposes an unacceptable barrier to owners and operators, and closes off the main source of supply of overhauled components for products, parts and appliances originating from the USA. Use of components from these sources in the past has not resulted in an unacceptable safety level.

Imposition of barriers of this sort is detrimental to safety. There may be a risk of incorrect reporting of maintenance, repairs and component changes, and there will be a tendency to leave parts in service longer than would otherwise be the case if components and repair schemes were readily available at a reasonable cost.

Many US Repair Stations concerned with light aircraft component maintenance and overhaul will not consider gaining EASA Approval worthwhile from an economic point-of-view. The market in the USA is too large to worry about additional approvals required to serve the European Market. This might not be the case for suppliers of components for larger commuter-style aircraft, but will certainly be the case for suppliers of parts for small light aircraft.

response

*Partially accepted*

Refer to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

Refer also to the changes introduced in AMC M.A.613(b) and AMC 145.A.50(a).

comment

210

comment by: *Armageddon Associates*

From the point of view of the UK this is, in part, a retrograde step in that an owner was permitted under the LAMS to carry out his own 50 hour checks if he so wished. This will no longer be possible with the Part M requirements.

The extension of tasks permitted under the revisions are welcomed. This will provide a commercial opportunity for associations and maintenance organisations to organise hands on teaching seminars to develop the

knowledge level of those owners who choose to attend. The existing JAR-FCL syllabi do not include much at all in respect of pilot/owner maintenance. Although aircraft are relatively simple to maintain there are traps for those without the required level of basic engineering skills and knowledge. I do acknowledge that the agreement of the NAA or CAMO is needed before approval for any task is undertaken but it begs the question of on what basis such approval is granted. An attendance certificate from a recognised association or organisation should assist with this.

response *Not accepted*

The current situation in Europe has been reviewed and the proposal in most cases includes the 50 hour check.

This mechanism has been described in an AMC to appendix VIII and explains why we did not specify any particular check.

Additionally, the proposed lists have been transferred to an AMC; it means that the lists can be adapted provided that they still comply with the basic principles as described in Appendix VIII to PartM.

comment 213

comment by: *BPvL e. V.*

Point 57.

It is correct, that there are no statistics about accidents or incidents for aircrafts involved after pilot owned maintenance. Luckily a lot of pilot maintenance failures are found and repaired during the annual checks in certified maintenance organisations (in Europe).

It was a big fault to implement the document AC 43 out of the FAA into part M. Everybody knows that the reason for not having statistics for accidents or incidents in the FAA is, that than this AC has to reject from the FAR´s.

Remember, when Steve Fossett was missed two month ago. Officials in the States said that they missed another **200** aircraft in that region of Nevada in the last years. Within the first 4 days of the search for Steve Fossett, **6** missed crashed aircraft were found.

We are sure that there are statistics and database, but these are not very common or welcome. If you want to make a statistic, I can add two incidents after pilot owned maintenance within the last 4 months only on one small airport here in Germany.

response *Noted*

comment 238

comment by: *SFVS*

SFVS welcomes the pilot owner maintenance with a better adaptation to the different categories of aircraft. The pilot owner maintenance should be permitted for all pilot members of a flying club.

response *Partially accepted*

Refer to the legal definition that has been given in M.A.803(a) of that NPA.

Pilot members of a non profit recreational legal entity declared as owner or jointly owner of the aircraft may carry out pilot-owner maintenance if

designated by the legal entity.

M.A.803 and its AMC have been improved in order to better reflect the concept.

comment

256

comment by: *René Meier*

AeCS favours strongly the pilot-owner maintenance concept. For the AeCS it is important to make sure that the pilot-owner is competent to carry out all maintenance tasks attributed to him/her.

response

*Noted*

Self assessment: the lists (Appendix VIII of Part M and its AMC) have been compiled to exclude safety critical items and no current evidence exists to support that self assessment would produce accidents caused by Pilot-Owner Maintenance. Assessment of a pilot-owner's competence by a maintenance organisation or a licensed person or NAA was considered to be unjustified when compared against the perceived safety benefit

In addition, as described in M.A.201 (a) & (c), the owner remains responsible for the maintenance tasks performed.

Refer also to paragraph 64 of the NPA explanatory note where additional elements to the assessment of the pilot's capability are given.

comment

462

comment by: *Malta Department of Civil Aviation*

Although competence of the pilot-owner may not always be possible, giving the pilot-owner the faculty to decide whether he is competent or not to carry maintenance might be a bit excessive at this early stage, especially in countries where pilot maintenance is not permitted or practiced. An important element in this issue is that the pilots are well aware of what they can and what they cannot do.

response

*Noted*

Self assessment: the lists (Appendix VIII of Part M and its AMC) have been compiled to exclude safety critical items and no current evidence exists to support that self assessment would produce accidents caused by Pilot-Owner Maintenance. Assessment of a pilot-owner's competence by a maintenance organisation or a licensed person or NAA was considered to be unjustified when compared against the perceived safety benefit

In addition, as described in M.A.201 (a) & (c), the owner remains responsible for the maintenance tasks performed.

Refer also to paragraph 64 of the NPA explanatory note where additional elements to the assessment of the pilot's capability are given.

comment

474

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

DAeC welcomes the proposed changes for Pilot-Owner maintenance in order to

- adapt appendix VIII more to the different categories of aircraft
- ensure that pilot-owner maintenance is permitted for members of a flying club.

response	<p><i>Noted</i></p> <p>Refer to comment n°238</p>
comment	<p>499 <span style="float: right;">comment by: <i>European Gliding Union (EGU)</i></span></p> <p>EGU welcomes the proposed changes for Pilot-Owner maintenance in order to</p> <ul style="list-style-type: none"> <li>• adapt appendix VIII more to the different categories of air-craft</li> <li>• ensure that pilot-owner maintenance is permitted for mem-bers of a flying club.</li> </ul>
response	<p><i>Noted</i></p> <p>Refer to comment n°238</p>
comment	<p>563 <span style="float: right;">comment by: <i>Programme Manager Europe Air Sports</i></span></p> <p>EAS welcomes the revised Appendix VIII and the division into subchapters for different aircraft categories.</p> <p>For the functioning of the airsport system in many of the European aeroclubs, it is necessary to introduce a provision in the rule that those individuals who hold or have held a valid license must be enabled to continue in case they loose their rating.</p> <p>Many pilot discontinue flying as private pilots when experiencing colourblindnes or other medical problems. Therefore, long year expertise in flying clubs would be lost in case only pilots holding a valid license would be entitled to perform POM.</p> <p>We recommend, for the benefit of safety and flying clubs, to modify M.A.803 a to include the option that also a pilot who "has held a valid license" is entitled to perform pilot owner maintenance.</p>
response	<p><i>Not accepted</i></p> <p>1) It is clearly against the basic principles of pilot owner maintenance to permit a person who does not hold a valid pilot licence to perform maintenance task.</p> <p>The concept is also based on the fact the pilot-owner may be the one who is going to fly the aircraft just after maintenance task have been carried out.</p> <p>2) In this case, this experience may not be lost because the Agency is in the process of exploring in the near future the possibility to have a light maintenance licence for the lighter end of general aviation.</p>
comment	<p>605 <span style="float: right;">comment by: <i>Royal Netherlands Aeronautical Association</i></span></p> <p>A careful requirements study need to be performed as there exist many different situations where piloting and ownership are legally separated but where maintenance is performed as if a pilot is also a shared owner. For example, pilot/club members of a gliding club typically perform Pilot Owner maintenance on the club aircraft in the winter season. A friendly foundation may be the owner, where this foundation rent the glider to the club. Provisions</p>

	must be made to allow such maintenance to happen.
response	<p><i>Noted</i></p> <p>1) Refer to the legal definition that has been given in M.A.803 of that NPA . Pilot members of a non profit recreational legal entity declared as owner or jointly owner of the aircraft may carry out pilot-owner maintenance if designated by the legal entity. M.A.803 and its AMC have been improved in order to better reflect the concept.</p> <p>2) The issue of leasing (renting) an aircraft is already addressed in M.A.201(b).</p>
comment	<p>606 <span style="float: right;">comment by: <i>Royal Netherlands Aeronautical Association</i></span></p> <p>A careful legal study should be made as flying clubs typically do not legally own aircrafts, but rent them from foundations which are associated with the flying club. In practice board representatives from a club would like to assign certain pilots to do maintaince, but this would not be legal unless provisions are made.</p>
response	<p><i>Noted</i></p> <p>The provisions under M.A 201 and M.A.803 should cover most of the national variants.</p>
comment	<p>659 <span style="float: right;">comment by: <i>Adolf Flüeli</i></span></p> <p>Page 17 Owner based maintenance</p> <p>pilot licence of the airplanes category shall be necessary, but not a valid licence</p> <p>reasons: Maintenance competence is the sum of education and experiance accumulated over years and decades</p> <p>if somebody has the education and the experiance and the training in maintenance, and does not renew the pilot licence for any reason, the competence and skills in mainenance are still given</p> <p>As an possible solution the rules shall be changed as follows:</p> <p>Even an valid pilot licence or a former pilot licence for this category of aircraft valid for maintenance purposes for an additional period as long as the former pilot licence was valid in total (also in the sence of a grandfathers rule)</p> <p>if there are any connections in the rules to maintenance licensing, please cross- refer to those chapters/rules</p>
response	<p><i>Not accepted</i></p> <p>It is clearly against the basic principles of pilot owner maintenance to permit a person who does not hold a valid pilot licence to perform maintenance task.</p>

The concept is also based on the fact the pilot-owner may be the one who is going to fly the aircraft just after maintenance task have been carried out.

In this case, this experience may not be lost because the Agency is in the process of exploring in the near future the possibility to have a light maintenance licence for the lighter end of general aviation.

**A. Explanatory Note - V. Regulatory Impact Assessment for Task M-017 - Airworthiness Review Staff requirements for aircraft 2730 Kg and below not used in commercial air transport (M.A.707)** p. 21-24

comment

20

comment by: *Ted Norman*

B Economic 2.

This comment is pure guesswork the number of qualified aircraft engineers is reducing as it is no longer seen as a rewarding career. How can you say CAMO's will find more candidates where is the evidence, because I can certainly demonstrate the reverse.

response

*Noted*

Please note that we are not only talking about aircraft engineers. Persons with other qualifications (aeronautical degree,...) are also eligible as airworthiness review staff.

In any case, the positive effect mentioned in the Regulatory Impact Assessment is related to a comparison with the current requirements. As a consequence, it will be easier to find appropriate qualified personnel if the requirements shown in M.A.707 are alleviated.

comment

239

comment by: *British Gliding Association*

MA 707, and associated AMC 707(a))

Overview/Audit of processes within the CAMO concept remains unnecessarily burdensome for airworthiness of sport/General aviation. As drafted in NPA2007/08 an already approved CAMO operates with the following constraints:

- The requirement for independent Airworthiness review staff (MA707) increasing the staffing requirements on all but the 'one-man CAMO'. This makes smaller (but greater than one man) organisations overburdened with meaningless segregation of roles to the extent that

additional staff will be required, thus increasing costs significantly for the end user / owner.

- An externally executed Quality Audit, or internal review (MA712) to be carried out at stipulated intervals.

- The continuing obligation of an NAA to make external audits to its satisfaction at any time, at the CAMO's expense.

All of these measures are applied to what is essentially an office-based bureaucratic function, not even actually engaged in work on airframes.

## Reason Text

These combined measures are wholly disproportionate to the real needs of sport/GA operations particularly if, as is expressed intention of the EASA Rulemaking Director, sporting bodies should be enabled to take on these roles. In the view of the BGA an appropriate sub-set of these requirements would be:

- Complete relaxation of requirement for 'Independent Review Staff'
- Application of internal review process only for sporting bodies and associations acting as CAMOs.
- Continuing reliance on NAAs for the quality audit function.

NB: This comment is directed at the details of the currently drafted regulation. It should be considered alongside the BGA's general comment concerning the CAMO's remit

response *Noted*

Refer to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment 240

comment by: *SFVS*

SFVS welcomes Option 2

response *Noted*

comment 257

comment by: *René Meier*

AeCS recommends Option 2

response *Noted*

This was the option selected in the NPA.

comment 268

comment by: *Roderick Weaver*

"Bearing in mind that the objective of the task..... ..retaining a high level of safety" If this is the objective then as a high level of safety has and is already in place for the gliding community under the control of the BGA the it folows that the correct action to achieve this objective is to leave the management with the that body.

This imposition of a paper trail, which "dodgy" maintenance bodies will evade/corrupt will actually reduce aircraft safety. this is a similar situation to the dodgy garages giving unsafe vehicles MOT certificates.

More regulation will make avoidance more attractive on a cost and inconvenience basis and thereby undermine the safety objective.

This is exemplified by the less than good safety record of some non commercial power aviation with poorly maintained aircraft, caused by inhibiting sensible experienced people from doing common sense tasks.



The sledgehammer trying to crack the nut comes to mind and the more appropriate and balanced approach would be to eliminate the requirement for Independent Review overlay and revert the quality control to those bodies , in particular the BGA, who have efficiently and effectively maintained standards over maintenance organisations for many years.

The Regulator needs to learn and understand that imposing burdensome processes does not automatically achieve any real improvements in safety and runs a very real risk of devaluing the Authority of the controlling bodies and reducing levels of safety.

Let the solution to a problem be a real solution and not simply an imposition of an ineffectual bureaucratic regime. Then respect, and following that an adherence to regulations which really do improve safety will be achieved.

response *Noted*

**A. Explanatory Note - V. Regulatory Impact Assessment for Task M-017 - Airworthiness Review Staff requirements for competent authorities for aircraft 2730 Kg and below not used in commercial air transport (M.B.902)**

p. 25-28

comment 208

comment by: *George Rowden*

Comment Text.

Within the CAMO area, the proposed processes of overview/audit are excessively complex for light/sport/GA and will only result in an increase in costs associated with increased manning to meet the requirements. There will be no benefit to the safety effectiveness of the operation.

Reason Text.

The EASA Rulemaking Director has expressed the intention to allow sporting bodies to take on the roles of overview and audit. In respect of Gliding, this should be evidenced by the removal of the requirement for additional independent review staff; internal reviews restricted to those organisations acting as CAMOs; NAA continuing to provide the quality audit function.

response *Not accepted*

Part-M does not require a CAMO to have additional persons to perform airworthiness reviews. The intent of M.A.707 is only to qualify personnel of a CAMO as an Airworthiness Review Staff.

The AMC to M.A.707(a) explains how the staff can hold a position with appropriate responsibilities. This includes the possibility to have airworthiness review staff that is not independent from the airworthiness management process if they have overall authority.

A CAMO may be a one-man organisation. See AMC M.A.707(a) in the consolidated version at the end of this CRD.

comment 241

comment by: *SFVS*

	SFVS welcomes Option 2	
response	<i>Noted</i>	
	This was the option selected in the NPA.	
comment	258	comment by: <i>René Meier</i>
	AeCS recommends Option 2	
response	<i>Noted</i>	
	This was the option selected in the NPA.	

**A. Explanatory Note - V. Regulatory Impact Assessment for Task M-017 - Issuance and renewal of the Airworthiness Review Certificate (ARC) (M.A.901)**

p. 29-35

comment	243	comment by: <i>SFVS</i>
	SFVS recommends strongly Option 3	
response	<i>Noted</i>	
	Option 3 was retained by the group and the Agency.	
comment	259	comment by: <i>René Meier</i>
	AeCS strongly recommends Option 3. If the ARC has a two-years validity the workload imposed on all parties will be reduced by 50 percent! [M.A.901(a)]	
response	<i>Not accepted</i>	
	Option 3 was the option selected in the NPA. However, the Agency does not agree with the 2 year validity, without conditions, of the ARC. The current proposal already allows to perform airworthiness reviews every 3 years if the aircraft stays in a controlled environment (subject to two extensions).	
comment	620	comment by: <i>JAR-Contra</i>
	The removal of "recommendations" is very welcome as it removes a layer of unnecessary complexity.	
response	<i>Noted</i>	

**A. Explanatory Note - VI. Regulatory Impact Assessment for Task M-005**

p. 40-47

comment	260	comment by: <i>René Meier</i>
	AeCS agrees with Option 5	
response	<i>Noted</i>	

**B. Draft Rules - II. Draft Opinion (EC) No 2042/2003 - M.1**

p. 50

comment 77

comment by: *DGAC France*

According article 1.1 b), Regulation CE 2042/2003 is applicable to aircraft registered in a third country and used by an operator for which the member state ensures oversight of operations.

It is clear however that a number of Part M requirements, notably paragraph M.1 are not adapted to aircraft registered in a third country. For example, if an European citizen operates an N registered aircraft, it is not possible to require the FAA to implement this regulation. Clarification is needed on which requirements are applicable to third country aircraft operated by european operators and on who is responsible for their oversight.

response *Not accepted*

In accordance with EC2042/2003 Article 1, Regulation EC2042/2003 is applicable, among others, to aircraft registered in a third country and used by an operator for which a Member State ensures oversight of operations.

As a consequence, and in addition to the requirements imposed by the (foreign) State of Registry, EC2042/2003 is applicable, including the use of Subpart F, Subpart G and Part-145 organisations when required.

M.1, paragraph 1 is not applicable in this case, since the aircraft is not registered in a Member State.

As a consequence, the oversight of the continuing airworthiness of the aircraft is the responsibility of the foreign country, although the Member State of the operator may have their own operational requirements to allow this aircraft to be operated.

This will change with the introduction of the new Basic Regulation and the corresponding Implementing Rules on operational issues.

M.1, paragraph 4, regarding the approval of the maintenance programme, indicates that the Member State of the operator has to agree with the State of Registry (can be a foreign one) on who will be responsible for such approval.

comment 78

comment by: *DGAC France*

As is provided for in M.1.4.ii, provisions should be introduced in M.1.1 for transfer of oversight from the State of Registry to the State of the Operator.

As, with the proposed amendment, Authorities may be required to issue the airworthiness review certificate (ARC) it should be possible when an aircraft registered in a Member State is operated in another Member State to have an agreement between the two NAA for the ARC to be issued by the competent authority of the State of the operator.

response *Partially accepted*

This is already allowed by ICAO Convention article 83bis

comment 578

comment by: *Programme Manager Europe Air Sports*

EAS strongly recommends to modify M 1, 4, (iii) and M.A.302 (b) to delete the requirement for a bilateral agreement in case the state of registry of the aircraft and the State of oversight for the Part M subpart G organisation are different.

To our opinion this is a rule which fundamentally disregards the European principle. A maintenance programme approved by Member State A is as safe as the Maintenance Programme approved by a G organisation of State B, as long as the common standards of Part M are applied. Therefore, there is no need for a bilateral in that case because it is not within the legal competence of the MS anymore to restrict the free movement.

response *Not accepted*

According to the current M.1 the approval of the MP is the responsibility of the MS of registry and not a privilege of the CAMO. The intent of the proposal is not to transfer the responsibility to the CAMO. The MS of registry is still responsible of the approval of the MP with the difference that this can be done through an indirect approval procedure which must be approved by such authority.

As a consequence, the procedures must be approved by the Member State of registry which can only be possible if they are also the Member State responsible for the oversight of the CAMO or they have agreed differently with the Member State of the CAMO.

The MS of registry must have the possibility to impose additional requirements in the MP following the provisions of Article 10.1 of the Basic Regulation.

Regarding the issue of free movement and whether a MP approved by a CAMO should be valid in all other Member States, this is not applicable because the approval of the maintenance programme is not a privilege of a CAMO.

This can only be applied to the case where the organisation has a given privilege to issue certificates, etc. For example:

- Recognition of CRS issued by an approved maintenance organisation.

Recognition of ARC issued by an approved CAMO with Subpart I privileges.

**B. Draft Rules - II. Draft Opinion (EC) No 2042/2003 - M.A.302 Maintenance programme** p. 50-51

comment 68

comment by: *Dutch gliding association*

When an aircraft is managed by a Part M subpart G organisation, the maintenance programme and its amendments may be approved by Part-M subpart G organisation.

For aircraft below 2730 kg it must be possible to approve the maintenance

programme and its amendments if the aircraft are in an uncontrolled environment (not managed by a Part M subpartG organisation), because this will reduce the costs for an approval of maintenance programme if aircraft are in an uncontrolled environment.

response *Partially accepted*

According to the current M.1 the approval of the MP is the responsibility of the MS of registry and not a privilege of a CAMO or the owner.

The intent of the proposal is not to transfer the responsibility. The MS of registry is still responsible for the approval of the MP with the difference that this can be done through an indirect approval procedure which must be approved by such authority.

This can not be done in the case of an owner because the owner is not subject to procedures or oversight by the competent authority.

Nevertheless, we agree that there is no need to limit this to the CAMO managing the aircraft, and may be applicable to any CAMO that uses the appropriate "indirect approval procedure".

Please refer to the consolidated text at the end of the CRD.

comment

71

comment by: *Sat-Heli*

the paragraph (c) doesn't define what type of ICA define airworthiness or not .  
what is mandatory ? only life limits reported on TCDS ?

appendix I to MAC M.A.302 require maintenance program should reflect TC holder requirements.

the TC holders sometime give recommandations for TBO's

sometime edit mandatory SB for minor purposes or more juridical reasons than flight safety reasons.

no guidelines for NAA's will create discrimination for FGI's and operators.

response *Not accepted*

The paragraph 2.1 of Appendix I to AMC M.A.302 and 301(b) (Content of a maintenance programme) describes on what a maintenance programme should be normally based.

A TCDS usually refers to the TC holders instructions or manuals. In the case of Hughes 300, service lifes specified in the TCDS are to be considered as manufacturer Instructions for Continuing Airworthiness.

If the owner has a contract with a CAMO, this organisations has to define in the CAME the policy for the management of Service Bulletins and TBO, based on

the instructions provided by the TC and STC holders.

The exposition should describe (see Appendix V to AMC M.A.704):

- in Chapter 1.2 the policy for the issuance of a Maintenance programme including which instructions and recommendations are taken in consideration,
- in Chapter 1.6: the policy for the management of non mandatory modification embodiemnt including Service Bulletins.

comment 81

comment by: DGAC France

1. In line with the objective of NPA 2007/08 to alleviate the regulatory burden imposed on light aircraft not used in general aviation, we propose to retain the approach of Annex 6 Part II, which provides that, for aircraft not involved in commercial air transport the maintenance programme need not be "approved" but can only be acceptable to the competent authority. It also has to be noted that such acceptability concept is also the one used in paragraphs xx.1529 of airworthiness codes which provides that ICA should be acceptable to EASA, the only approved section being the Airworthiness Limitation Section. The verification of the acceptability would then consist in checking that the maintenance programme contains details of maintenance to be carried out (in accordance M.A.302(d)) and reflects mandatory requirements (in accordance with M.A.302(g)). Consequently, the owner would have the flexibility to deviate from the TC holder instructions, without the need for an approval.
2. The possibility to approve a maintenance programme applicable to no specific serial number, in order to approve a continuing airworthiness management organisation which does not yet have customers should be linked to subpart G and not to M.A.302 which relates to the maintenance programme of an individual aircraft. Therefore we propose to transfer this concept in M.A.709.

We thus propose:

a) to modify M.A.201(a)(4) as follows

"4. the maintenance of the aircraft is performed in accordance with the **approved** maintenance programme as specified in M.A.302."

b) to modify M.A.302 as follows

" (a) ...

" (b)

(1) **For large aircraft and for aircraft involved in commercial air transport**, the maintenance programme and any subsequent amendments shall be approved by the competent authority. ~~When the aircraft continuing airworthiness is managed by a Part-M, Subpart G organisation,~~ The maintenance programme and its amendments may be approved by the Part-M, Subpart G organisation **managing the aircraft** through an approval procedure (hereinafter called "indirect approval procedure"). This procedure shall be established by the Part-M, Subpart G organisation, included in the Continuing Airworthiness Management Exposition, and approved by the competent authority responsible for that Part-M, Subpart G organisation.

(2) **In the case of non large aircraft not involved in commercial air transport, the maintenance programme and any subsequent amendments shall be approved by acceptable to the competent authority.** When the aircraft continuing airworthiness is managed by a Part-M, Subpart G organisation, the maintenance programme and its amendments may

be **approved issued by** the Part-M, Subpart G organisation, **without prior notification to the competent authority, in accordance with a procedure approved by its competent authority and included in the continuing airworthiness management exposition.** This procedure can not be applied to aircraft registered in a Member State different from the Member State responsible for the oversight of the Part-M Subpart G organisation, unless both Member States have an agreement in accordance with M.1."

"(c) **For large aircraft and for aircraft involved in commercial air transport,** The maintenance programme must establish compliance with:

1. instructions for continuing airworthiness issued by type certificate and supplementary type certificate holders and any other organisation that publishes such data in accordance with Part-21, or 2. instructions issued by the competent authority, if they differ from subparagraph 1 or in the absence of specific recommendations.

The ~~owner or the~~ operator may propose to the competent authority alternate and/or additional instructions to those defined in paragraphs 1 and 2. These alternate and/or additional instructions may be included in the maintenance programme once they have been approved by the competent authority. "

"(d) The maintenance programme shall contain details, including frequency, of all maintenance to be carried out, including any specific tasks linked to specific operations. The programme must include a reliability programme when the maintenance programme is based:

1. on Maintenance Steering Group logic, or;

2. mainly on condition monitoring."

"(ef) The maintenance programme must be subject to periodic reviews and amended when necessary. The reviews will ensure that the programme continues to be valid in light of operating experience whilst, **for large aircraft and for aircraft used in Commercial Air Transport,** taking into account new and/or modified maintenance instructions promulgated by the Type Certificate holder.

"(fg) The maintenance programme must reflect applicable mandatory regulatory requirements addressed in documents issued by the Type Certificate holder to comply with Part 21A.61."

and delete reference to "approved maintenance programme" in the rest of Part M (such as M.A.708(b)(4), M.A.710(a)(3), Form 14, etc.)

c) to introduce the concept of one maintenance programme for different aircraft of the same type or same category in AMC to M.A.302

d) to introduce the concept of the maintenance programme not specific to a serial number in M.A.709 (see comment on M.A.709).

response *Partially accepted*

It is not the opinion of the Agency that maintenance instructions should differentiate whether the aircraft is operated in commercial air transport or other than in commercial air transport. Instructions for continuing airworthiness are the same whatever the operation is. Therefore making a difference on the way a Maintenance Programme (MP) is approved to envisage that some MP may be acceptable to the authority, cannot be accepted.

Similarly, the periodic review of a MP to take into account the ICA from the TC

holders applies to all categories of aircraft.

However, the operator or the owner may propose additional or different tasks based on the results of a reliability programme or on his experience. See the new AMC to M.A.302(d).

It is also acceptable that a Maintenance Programme is approved for different registration when the instructions in the MP are applicable to the series of aircraft defined. See the AMC to M.A.302(b).

In addition, the concept of "baseline" and "generic" maintenance programmes has been transferred from M.A.302 to M.A.709.

See the consolidated version at the end of this CRD.

comment

133

comment by: *FFVV*

On behalf of FFVV French Gliding Union

MA 302 Maintenance programme

Baseline maintenance programme. For non complex aircraft as gliders, there is no need to develop "Baseline"programme, the evidence that the pilote owner, or the CAMO, gets the up-to-dated manufactuer maintenance programme is sufficient. Then the maintenance programme of any glider will be achieve by including in the general frame of maintenance programme for glider as proposed by the union, the actual maintenance data of such specific glider, complying with manufacturer requirements.

Generally manufacturer maintenance programme covers similar types of gliders, in that case a unique generic programme will be use for the differents glider, the particularities of each glider will be specified in appendixs - So in case of change of equipements or time limit component, only the appendix will be amended.

response

*Noted*

We confirm the following in relation to the current proposal:

- The concept of "baseline" and "generic" maintenance programmes has been introduced in order to allow CAMOs to be approved without the need of any particular customer under contract. Whether they use a "baseline" or a "generic" maintenance programme is their choice, with the "generic" maintenance programme being used when there are maintenance instructions that cover different types of aircraft. When they receive a customer, the CAMO adapts the programme to the characteristics of the owner's aircraft using, for example, an Appendix.
- However, if an individual owner decides to propose a maintenance programme for his own aircraft directly to the authority, then he can not use "generic" or "baseline" maintenance programmes. He just proposes a programme applicable to his own aircraft.

As a consequence, there is no need to change the current proposal

comment

179

comment by: *Ludwig Hessler*

Notwithstanding paragraph (c) requirements above, for aircraft not involved in commercial air transport, in order to allow the initial approval and/or the



extension of the scope of an existing continuing airworthiness management organisation approval without having any customers under contract as well as to perform case by case airworthiness reviews for above mentioned aircraft on the basis of provided maintenance programmes for customers not having a contract with the continuing airworthiness management organisation for the requested scope of work, it is acceptable to develop additional "baseline" and/or "generic" maintenance programmes as follows:

**JUSTIFICATION:**

The present text gives the impression, the "baseline and generic" maintenance programs would enable the initial approval and the extension of the approval for new customers on a temporary basis only. For holders of aircraft under 2735 kg not commercially operated for holders not wanting permanent customer liaison with a CAMO it should in spite of that fact be possible to perform a airworthiness review in accordance with an approved maintenance program together with provided operation documentation on a case by case basis.

This is an important requirement for NAAs not holding the infrastructure to perform airworthiness reviews i.a.w. M.A. 901 with own airworthiness review staff.

response *Accepted*

The concept of "baseline" and "generic" maintenance programmes has been transferred from M.A.302 to M.A.709.

In addition, AMC M.A.709 includes the possibility to manage aircraft in accordance with a programme previously approved (not developed following the "baseline" or "generic" maintenance programme of the CAMO).

comment *191*

comment by: *Bill Taylor*

MA 302 - Maintenance programme. As explained in previous comments, the whole ethos of Part M is wholly inappropriate for the needs of light GA and gliders etc. Here, a single organisation is needed which can both carry out the aircraft maintenance tasks, but also carry out the duties of the continued airworthiness management organisation. This has already been done extremely successfully in the UK by single organisations such as the 'M3'. Here the M3 recommends the issue of the CofA and then has the ability to extend it annually for two years, with the CofA renewal taking the form of a Star Annual on the third year. The essence of the Star Annual is an Airworthiness Review. There is no economic justification for the need for both Subpart F and Subpart G organisations, both needing separate Expositions, separate Staff, separate Premises, etc etc etc. All this adds to cost and has no benefit to improved safety, certainly as has been demonstrated for many years in the UK. The imposition of this system will add so much to bureaucracy and therefore costs that it will run counter to the best interests of safety. Part M must therefore be amended to allow the Subpart F to fulfill the role of Subpart G also, all under a single approval, a single Exposition and, most importantly, a single fee.

**Action Required.** Accordingly, it is proposed that the following new sub-para (f) be added to MA 302:

*(f) By derogation, for aircraft complying with Part 21, 21A.14(b) and 21A.14(c) (ELA 1 and ELA 2) and not involved in commercial air transport, the*

*maintenance programme and its amendments may be approved by a Part M Subpart F organisation.*

response

*Partially accepted*

Part-M, Subpart F contains the requirements necessary to obtain an approval as a maintenance organisation. These requirements do not cover the continuing airworthiness management of aircraft.

Nevertheless, nothing prevents a Subpart F organisation to apply for a Subpart G approval (CAMO) so they can perform airworthiness managements tasks, airworthiness reviews, issuance of airworthiness review certificates, approval of maintenance programmes, etc.

Amendments have been introduced to the following paragraphs in order to facilitate the double approval (single application format, single exposition, common audits):

AMC M.A.602, AMC M.A.702, AMC M.A.704, AMC M.B.604(b) and AMC M.B.704(b).

Refer also to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment

330

comment by: *Sinclair Smith*

Art/Nr/Chapter M.A. 502- control of Parts.

All we need is a process where a qualified engineer can release a part with a form 1.

Any additional controls are unnecessary for light aviation and gliding.

response

*Not accepted*

Maintenance of components involves in many cases the use of special procedures, tooling and testing equipment which may not be available to the independent engineer (similar to Appendix VII for performance of complex maintenance tasks in aircraft).

This is why it is not the intention of the Agency to allow maintenance of components by individuals outside a maintenance organisation, except for those cases already covered in M.A.502.

Maintenance organisations are subject to the use of approved procedures and to the oversight of the competent authority.

comment

358

comment by: *UK CAA*

PARAGRAPH: M.A.302 (c) 3

COMMENT:

It is suggested that the text reproduced below should be removed in its entirety, as it appears its only objective is to serve unnecessary fields relating to maintenance programmes under the management of a CAMO specified on current version of the EASA Form 14.

"Notwithstanding paragraph (c) requirements above, for aircraft not involved in commercial air transport, in order to allow the initial approval and/or the extension of the scope of an existing continuing airworthiness management organisation approval without having any customers under contract for the requested scope of work, it is proposed that the concept of "baseline" and/or "generic" maintenance programmes' are developed as follows:"

CAA considers it would be more appropriate to review the format and content of the EASA Form 14 for CAMOs managing aircraft not involved in Commercial Air Transport.

The CAA supports the concept of Generic and baseline Aircraft Maintenance Programmes (AMP), however we believe that the AMP approval refs on the F14 are unnecessary. It is becoming evident to the UK CAA, that the contents of the current published version of the F14 is not appropriately functional / practical for use with stand alone CAMOs managing aircraft with a MTWA < 5700Kgs. This is because there is a high probability (based upon our experience of regulating the existing national approval system for recommendations for C of A renewals) that these organisations will request that a large and diverse number of aircraft types (and their associated AMP's) are included in the scope of each organisation's approval.

If each aircraft type is to be listed individually this will place an unnecessary and overly burdensome workload and cost on the CAMO and the NAA (in terms of administering multiple changes to the approval) in keeping the F14 current and approved for all aircraft being managed at any given point in time. In addition, it appears that an aircraft (of a type already within the organisation's scope of approval) presented for just an airworthiness review on an ad-hoc basis for will need to included on the F14 before an ARC can be issued or recommended for issue to the competent authority.

Group aircraft ratings exist within the provisions of Parts 66 and 145, but are not mentioned within Part M subpart G. Some doubt therefore exists as to whether a group rating may be granted to a Subpart G organisation. Assuming a logical perspective, it follows that the policy adopted for Part 66 and 145 could also be applied to Part M subpart G.

It is our view that it is possible to issue an approval to an organisation that includes an aircraft group rating on the Form 14 (e.g. Cessna Piston Engine aircraft below 2730Kgs) provided that the organisation is able to demonstrate that they have the capability to manage the aircraft group requested. The associated (and possibly numerous) maintenance programmes could be listed in the organisations CAME, along with the list of the individual aircraft types in a similar manner to that used for a Part 145 Maintenance Organisation's Exposition scope of work.

#### JUSTIFICATION:

We believe the new material would be better placed in AMC M.A.302.

response *Partially accepted*

The concept of "baseline" and "generic" maintenance programmes has been transferred from M.A.302 to M.A.709.

The reference to the approved maintenance programme has been removed from the Form 14 and transferred to the CAME (see M.A.703 and AMC M.A.709).

Aircraft ratings/series/groups may be used when indicating the scope of work in Form 14 (see AMC M.B.703).

comment 393 comment by: *Barry Plumb*

As noted above, for light aircraft not used for commercial purposes the subpart F approved organisation should be able carry out the full maintenance and airworthiness review functions therefore the subpart F approved organisation should be granted the privilege to approve the maintenance programme.

response *Partially accepted*

Part-M, Subpart F contains the requirements necessary to obtain an approval as a maintenance organisation. These requirements do not cover the continuing airworthiness management of aircraft.

Nevertheless, nothing prevents a Subpart F organisation to apply for a Subpart G approval (CAMO) so they can perform airworthiness managements tasks, airworthiness reviews, issuance of airworthiness review certificates, approval of maintenance programmes, etc.

Amendments have been introduced to the following paragraphs in order to facilitate the double approval (single application format, single exposition, common audits):

AMC M.A.602, AMC M.A.702, AMC M.A.704, AMC M.B.604(b) and AMC M.B.704(b).

Refer also to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment 400 comment by: *CAA-NL, SCI*

Ad c) additional instructions should be allowed through indirect approval, provided these instructions are based upon and do not conflict with approved data.

response *Not accepted*

Even if the proposed instructions are different from approved data, they can become approved if adequately justified. Otherwise, you can not approve escalations of maintenance intervals.

comment 401 comment by: *CAA-NL, SCI*

Replace aircrafts by aircraft in last paragraph of M.A.302 item 2.

response *Accepted*

comment

418

comment by: IAOPA Europe

MA 302 - Maintenance programme. As explained in previous comments, the whole ethos of Part M is wholly inappropriate for the needs of light GA and gliders (eventually ELA) etc. Here, a single organisation is needed which can both, carry out the aircraft maintenance tasks, but also carry out the duties of the continued airworthiness management organisation. This has already been done extremely successfully in the UK by single organisations such as the 'M3'. Here the M3 recommends the issue of the CofA and then has the ability to extend it annually for two years, with the CofA renewal taking the form of a Star Annual on the third year. The essence of the Star Annual is an Airworthiness Review. There is no economic justification for the need for both Subpart F and Subpart G organisations, both needing separate Expositions, separate Staff, separate Premises, etc. All this adds to cost and has no benefit to improved safety, certainly as has been demonstrated for many years in the UK. The imposition of this system will add so much to bureaucracy and therefore costs that it will run counter to the best interests of safety. Part M must therefore be amended to allow the Subpart F to fulfil the role of Subpart G also, all under a single approval, a single Exposition and, most importantly, a single fee.

Accordingly, it is proposed that the following new sub-para (f) be added to MA 302:

**(f) By derogation, for aircraft complying with Part 21, 21A.14 (b) and 21A.14 (c) (ELA 1 and ELA 2) and not involved in commercial air transport, the maintenance programme and its amendments may be approved by a Part M Subpart F organisation.**

response

*Partially accepted*

Part-M, Subpart F contains the requirements necessary to obtain an approval as a maintenance organisation. These requirements do not cover the continuing airworthiness management of aircraft.

Nevertheless, nothing prevents a Subpart F organisation to apply for a Subpart G approval (CAMO) so they can perform airworthiness managements tasks, airworthiness reviews, issuance of airworthiness review certificates, approval of maintenance programmes, etc.

Amendments have been introduced to the following paragraphs in order to facilitate the double approval (single application format, single exposition, common audits):

AMC M.A.602, AMC M.A.702, AMC M.A.704, AMC M.B.604(b) and AMC M.B.704(b).

Refer also to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment

420

comment by: Ludwig Hessler

Apply the M.1 comments

response

*Accepted*

See reply to comment 179.

comment	422	comment by: <i>Ludwig Hessler</i>
	<p>Comment: The EASA Form 14 should be amended to the extent, that individual maintenance programs no longer need to be listed. Only the respective aircraft types should have to be listed. Respectively the CAME should be made to contain a relevant procedure for maintaining a Capability List. The reasoning behind this is the relevance to the concepts of Baseline and Generic maintenance programs.</p>	
response	<p><i>Accepted</i></p> <p>M.A.703 and AMC M.A.709 have been amended accordingly.</p>	
comment	476	comment by: <i>Deutscher Aero Club e.V. (DAeC)</i>
	<p>DAeC welcomes these rule changes as an improvement.</p>	
response	<p><i>Noted</i></p>	
comment	501	comment by: <i>European Gliding Union (EGU)</i>
	<p>EGU welcomes these rule changes as an improvement.</p>	
response	<p><i>Noted</i></p>	
comment	536	comment by: <i>Marie THERY</i>
	<p><b><u>Propositions:</u></b></p> <p>1. It is proposed to revise Part M (M.A.302 and all other necessary paragraphs) so that, for light aircraft not used in commercial air transport, the maintenance programme would no longer need to be <i>approved</i> but would only have to be <i>acceptable</i> to the competent authority. A maintenance programme would be acceptable to the authority if it contains:</p> <ul style="list-style-type: none"> <li>- details of all maintenance to be carried out, as per M.A.302(d); and</li> <li>- all mandatory information, as per M.A.302(g).</li> </ul> <p>2. It is proposed to remove the provisions introduced in M.A.302(c) to cover the case where a CAMO has no customer for a particular aircraft type and to transfer these provisions in Subpart G. Idem for the new §7 to AMC M.A.302.</p> <p><b><u>Rationale:</u></b></p> <p>1. This would be in line with ICAO Annex 6 Part II (aircraft not used in commercial air transport).</p> <p>It is acceptable for light general aviation aircraft that the content of the maintenance programme be left to the responsibility of the owner/CAMO (with the exception of the mandatory items such as ALIs), while maintaining the M.A.302(f) requirement to revise the maintenance programme in light of the</p>	

operational experience.

This would also be in line with the situation in the USA.

Note: there are other cases where a document is required but not approved. Example the Instructions for Continued Airworthiness which the TC Holder is required to develop.

2. The concepts of "baseline" and "generic" maintenance programme are linked to the approval of a CAMO with no customer for part or all of its scope and are therefore a Subpart G issue, whereas M.A.302 deals with the maintenance programme of individual aircraft.

response *Partially accepted*

Comment 1 not accepted, please refer to the answer made to the DGAC France in comment 81 of the same segment.

Comment 2 accepted. The concept of "baseline" and "generic" maintenance programmes has been transferred from M.A.302 to M.A.709.

See the consolidated version at the end of this CRD.

comment 570

comment by: *Swedish Soaring Federation*

We agree with the proposed change to allow "Baseline" or "Generic" maintenance programmes, as this will significantly reduce the level of unnecessary paperwork.

response *Noted*

comment 591

comment by: *DULV*

MA 302 - Maintenance programme. As explained in previous comments, the whole ethos of Part M is wholly inappropriate for the needs of light GA and gliders (eventually ELA) etc. Here, a single organisation is needed which can both, carry out the aircraft maintenance tasks, but also carry out the duties of the continued airworthiness management organisation. This has already been done extremely successfully in the UK by single organisations such as the 'M3'. Here the M3 recommends the issue of the CofA and then has the ability to extend it annually for two years, with the CofA renewal taking the form of a Star Annual on the third year. The essence of the Star Annual is an Airworthiness Review. There is no economic justification for the need for both Subpart F and Subpart G organisations, both needing separate Expositions, separate Staff, separate Premises, etc. All this adds to cost and has no benefit to improved safety, certainly as has been demonstrated for many years in the UK. The imposition of this system will add so much to bureaucracy and therefore costs that it will run counter to the best interests of safety. Part M must therefore be amended to allow the Subpart F to fulfil the role of Subpart G also, all under a single approval, a single Exposition and, most importantly, a single fee.

Accordingly, it is proposed that the following new sub-para (f) be added to MA 302:

(f) By derogation, for aircraft complying with Part 21, 21A.14 (b) and 21A.14 (c) (ELA 1 and ELA 2) and not involved in commercial air transport, the maintenance programme and its amendments may be approved by a Part M Subpart F organisation.

response *Partially accepted*

Part-M, Subpart F contains the requirements necessary to obtain an approval as a maintenance organisation. These requirements do not cover the continuing airworthiness management of aircraft.

Nevertheless, nothing prevents a Subpart F organisation to apply for a Subpart G approval (CAMO) so they can perform airworthiness managements tasks, airworthiness reviews, issuance of airworthiness review certificates, approval of maintenance programmes, etc.

Amendments have been introduced to the following paragraphs in order to facilitate the double approval (single application format, single exposition, common audits):

AMC M.A.602, AMC M.A.702, AMC M.A.704, AMC M.B.604(b) and AMC M.B.704(b).

Refer also to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment 623

comment by: *DSvU*

If deinstallation and installation of components are simple and do not require special knowledge and use of special tool, it should not be prohibited.

response *Not accepted*

The desinstallation and reinstallation of component from an aircraft is a task that can be performed by an "A-rated" organisation. This may be carried out and released by a any appropriately approved maintenance organisation, according to M.A.801(a) and (b)1, by an individual approved licence holder (according to M.A.801(b)2), and by a pilot owner according the list of permitted tasks in M.A.801(b)3. The change in M.A.502 introduced by this NPA intends to clarify the aspect of component maintenance.

comment 625

comment by: *DTruempi*

For non commercial airplanes (according to the EASA definition), i.e. glieders, it is not necessary to establish and approve a specific maintenance programme for each aircraft. The maintenance programme established by the manufacturer (during the certification!) is sufficient. (Especially gliders are very simple aircrafts, they don't need an inflated bureaucracy!)

response *Not accepted*

See reply to comment 630.

comment 627

comment by: *British Gliding Association*

MA 302 – Maintenance Programmes



## Comment Text

With the introduction of the Generic Maintenance Programme EASA has at least recognised that in GA/sport aviation there are much larger numbers of generically similar examples of very simple airframes. However it has failed to recognise that even the variations from the standard, within a generic type, while widespread, are also usually minimal from an airworthiness point of view. Thus, while EASA has accepted a problem, the solution offered is wholly cumbersome. The requirement for approval of the variations from generic maintenance programmes for each and every example within the group, by the NAA, or indeed the securing of an 'indirect' approval is intrusive and bureaucratic. It will demand rafts of negotiation and/or continuing paperwork exchanges that are wholly unjustified for safe practice (outside Commercial Air Transport). Organisations' approvals, in themselves, should recognise that organisations ability to make these detailed judgements, and not demand this level of intrusive scrutiny on administrative justification. Further, here in UK, it appears clear that the NAA would neither seek this measure nor have the ability to staff it function.

response *Not accepted*

See reply to comment 630.

comment 630

comment by: *DTruempi*

I.E. For gliders, german aeroclub has established an generic maintenance programm that an owner or operator can download an apply (approved by the authorities). But this generic programm gives no way more "saftety" then the originally programm from manufacturer. It request, that the maintenance of an aircraft (glider) comply with the programm of the manufacturer.

So an maintenance programm according to the EASA rules ist absolutly needless!

response *Not accepted*

Although it is clear that the maintenance programme must comply with the recomendations of the TC holder, some additional tasks may be required in order to take into account possible modifications introduced in the aircraft.

In case of using a standard maintenance programme published by the competent authority, please refer to AMC M.B.301(b).

**B. Draft Rules - II. Draft Opinion (EC) No 2042/2003 - M.A.502 Component maintenance**

p. 51

comment 7

comment by: *Mike Godsell*

See pages 51, 99, 100, AMC MA 302

I am particularly worried that UK engineers & maintenance organisations may try to continue to use the UK LAMS on EASA aircraft in preference to an approved manufacturers maintenance programme.

LAMS is appropriate for Annex II aircraft but not for sophisticated modern types.

Use of LAMS is similar to attempting to service a modern BMW car using the

workshop manual of a Morris Minor as reference. LAMS requires UK engineers to use their skill & experience to assess what work needs to be done. They are therefore free to do as much or as little work as they see fit. This leads to items being missed, or unnecessary work being done. It also tempts some engineers into extortion, presenting owners with massive bills for work that the owner has no means of verifying.

In contrast, an approved manufacturers maintenance programme gives a type specific list of work to be done and the time to do it. No items are missed, and successful completion of the work requires technical competence, not metaphysical intuition. A safe maintenance operation can be performed by the newest mechanic, or even a competent owner, and the owner is able verify that the work has been correctly done.

Use of UK LAMS on EASA aircraft could be a flight safety hazard.

response *Noted*

Reference to LAMS has been removed because it is not adequate to refer to specific maintenance programmed developed by NAAs. It is the responsibility of each NAA to adapt their proposed "generic" maintenance programme (if they decide to publish one) to the existing regulations.

comment *147*

comment by: *Helge Hald, Director*

The provision seems to be very narrow. In some cases deinstallation and installation of components is very simple and do not require special knowledge and tool.

response *Not accepted*

The desinstallation and reinstallation of component from an aircraft is a task that can be performed by an "A-rated" organisation. This may be carried out and released by a any appropriately approved maintenance organisation, according to M.A.801(a) and (b)1, by an individual approved licence holder (according to M.A.801(b)2), and by a pilot owner according the list of permitted tasks in M.A.801(b)3. The change in M.A.502 introduced by this NPA intends to clarify the aspect of component maintenance.

comment *169*

comment by: *Derek Wilson*

The component maintenance approval sub-categories is clearly madness and way over complicated for GA/airport applications. If I read this correctly, any part removed from an airframe becomes a component requiring a separate component requiring a separate approval. This is overly complex for GA/airport and is already covered by Form1 rules.

response *Partially accepted*

M.A.502 has been modified in order to permit some extent of maintenance of components by independent certifying staff and by organisations not holding a "C" rating.

Nevertheless, the release of this work will be subject to aircraft release requirements and will not be eligible for the issuance of a Form 1.

comment	<p>203 <span style="float: right;">comment by: <i>Ted Norman</i></span></p> <p>M.A.502</p> <p>well this was written with a benign view of NAA,s. If you take any part off a glider it will by definition become a component and have to go through this process, totally unnecessary for small aircraft. Please remember the overarching requirement for our NAA is not to be held liable in a court of law, engineering and safety come as secondary objectives. So this will end up as a complex procedure.</p>
response	<p><i>Partially accepted</i></p> <p>M.A.502 has been modified in order to permit some extent of maintenance of components by independent certifying staff and by organisations not holding a "C" rating.</p> <p>Nevertheless, the release of this work will be subject to aircraft release requirements and will not be eligible for the issuance of a Form 1.</p>
comment	<p>205 <span style="float: right;">comment by: <i>George Rowden</i></span></p> <p>Page 51 in draft (Control of parts)</p> <p>Under the proposals, the storage of parts is unnecessarily prescriptive for light/sport/GA. Safety can be as readily achieved by the release of the part by a appropriately qualified engineer/organisation using Form 1.</p> <p>Reason text.</p> <p>The proposed methodology is totally based on the experience of the commercial air transport industry. Parts storage within the light/sport/GA sector is completely different and it is therefore inappropriate to apply this methodology. If applied, the complications of the proposed method of parts storage and record keeping will drive up cost unnecessarily. In addition, the probability that a stored part may be significant in relation to safety issues should be and issue and the responsibility of the party releasing it for use.</p> <p>Page 52 in draft</p> <p>Comment Text.</p> <p>Under the proposals, any part removed from an aircraft has to have a separate maintenance approval. This is far too complicated for light/sport/GA aviation and is covered anyway by the Form 1 rules.</p> <p>Reason Text.</p> <p>It is inappropriate to split down components for maintenance approval further than sub units such as Avionics (C3), Engine and APU (C7), Propellers (C13) for example</p>
response	<p><i>Partially accepted</i></p> <p>In relation to the storage of unserviceable components, please refer to the</p>

reply to comment 398.

In relation to maintenance of components, see reply to comment 203.

In any case, the Agency considers that all existing ratings for components (C01 to C20) are necessary, in case maintenance has to be performed on a component in the workshop, requiring the issuance of a Form 1.

comment 217

comment by: *Sarah Kelman*

This is ridiculously complex for a sailplane and is already covered under the rules of Form 1. Broader approval is required for airports / GA than provided under existing proposals.

response *Partially accepted*

M.A.502 has been modified in order to permit some extent of maintenance of components by independent certifying staff and by organisations not holding a "C" rating.

Nevertheless, the release of this work will be subject to aircraft release requirements and will not be eligible for the issuance of a Form 1.

comment 220

comment by: *Sarah Kelman*

Again, this is over prescriptive for sailplanes. There is not teh same problem nor implications associated with 'bogus parts' on these simple low-speed aircraft. It is not appropriate nor practical.

response *Accepted*

M.A.504 has been amended in order to include the possibility to transfer an unserviceable component to the owner under certain conditions.

comment 236

comment by: *British Gliding Association*

M.A.502

The component maintenance approval sub-categories are over-elaborate for GA/sport applications. Essentially, any part removed from an airframe becomes a component requiring a separate component which in turn requires a separate approval. This is unnecessarily complex for light GA and is anyway covered by rules associated issue of Form1.

Reason Text

While it can be argued that these extant ATA categories can be intelligently applied by NAAs it is already clear that this is not happening. Additional justification and approval negotiations are being required to secure separate component approvals. A wider view of components classification is justified in Sport/GA, with a broader approval for basic airframe structure and control of components included in the fundamental approval. The only separate component approvals necessary in this sector are for built-in systems such as Electrical (C5), Avionics - Nav and Comms (C3) Engine and APU (C7), Fuel (C9), Helicopter Rotors and Transmission (C10/11), Propellers (C13).

response

*Partially accepted*

M.A.502 has been modified in order to permit some extent of maintenance of components by independent certifying staff and by organisations not holding a "C" rating.

Nevertheless, the release of this work will be subject to aircraft release requirements and will not be eligible for the issuance of a Form 1.

comment

244

comment by: *British Gliding Association*

M.A.502 - Control of Parts

The requirement for storage in 'a secure location under the control of an MA502 approved organisation' is overly prescriptive for non-CAT sport/General aviation. The only necessary requirement for safety is that preparedness of an appropriately qualified engineer/organisation to release the part with a Form 1.

Reason Text

David's 'dont understand' in the 'Parts' issue is caused by a spurious space. My best revision now reads reads '..released to an appropriate (possibly commercial) standard and/or safely recycled...'. Suggest then add ' on the authority of an appropriately approved individual'.

This rule has been wholly driven by the 'bogus part' issue in commercial air transport where commercial issues prevail. It is inappropriate in Sport/GA where many parts may be released to an appropriate (possibly commercial) standard and/or safely recycled on the authority of an appropriately approved individual. While the previous history and stocking of a part may in limited cases be of significance, the judgement should be at the discretion of the appropriate party that releases the part. Further, it is inappropriate that items that are, in common law, the property of individuals, should be retained by a third party in a remote location. Equally the burden of stock control, storage and record keeping will drive up the costs to all concerned including end users / owners.

Yet again EASA is overly prescriptive of the details by which a rule is executed rather than specifying the overarching regulatory framework.

response

*Accepted*

M.A.504 has been amended in order to include the possibility to transfer an unserviceable component to the owner under certain conditions.

comment

272

comment by: *Walter Gessky*

M.A.502(b)  
Change the text:

"...is expressly permitted by the aircraft ~~maintenance data~~ **instructions for continued airworthiness** to improve access.

Justification:

This is the correct wording according (EC) 1702/2003 Part 21.

response	<i>Not accepted</i>
	<p>The paragraph M.A.502(b) has been modified in order to distinguish between aircraft maintenance data and component maintenance data.</p> <p>The Agency considers that it is not necessary to change the term "maintenance date" because it is already used in many instances in 2042/2003 and does not create confusion.</p>
comment	<p>309 <span style="float: right;">comment by: <i>peter GRAY</i></span></p> <p>The remote storage of components by a third party is not suitable to Sporting aviation in that hitherto the quality of re-used parts has been under the aegis of the engineer doing the maintenance and it has worked well (in UK gliding at least which is my field). Large parts are easily stored at the premises of a club or pilot group and can be assessed for condition when it is proposed to use them. There will be a cost for a system that contributes nothing to safety or efficacy.</p>
response	<p><i>Partially accepted</i></p> <p>M.A.504 has been amended in order to include the possibility to transfer an unserviceable component to the owner under certain conditions. However, storage of parts in premises of a club or pilot group is not acceptable because there are no controls nor approved procedures.</p>
comment	<p>314 <span style="float: right;">comment by: <i>Nick Norman</i></span></p> <p>The proposed rule regarding component maintenance are extremely complex and quite unnecessarily so for light aircraft not used for CAT, especially in the case of unpowered aircraft. Existing concepts such as EASA Form 1 cover the needs adequately. Increased complexity reduces safety in a non-commercial environment, it does not increase it</p>
response	<p><i>Partially accepted</i></p> <p>M.A.502 has been modified in order to permit some extent of maintenance of components by independent certifying staff and by organisations not holding a "C" rating.</p> <p>Nevertheless, the release of this work will be subject to aircraft release requirements and will not be eligible for the issuance of a Form 1.</p>
comment	<p>321 <span style="float: right;">comment by: <i>Tim FREEGARDE</i></span></p> <p>The component categories and handling regimes involving secure storage are thoroughly unnecessary and impractically burdensome for light aviation, and are incompatible with the retail-scale operations of light aviation suppliers. There is no problem here that requires fixing, either with the supply and traceability of certified parts or, indeed, with any failures or accidents that might be so attributed. The present, long established and well proven methods of recording and traceability are fully satisfactory; EASA's proposals are thoroughly unworkable.</p>
response	<p><i>Partially accepted</i></p> <p>M.A.502 has been modified in order to permit some extent of maintenance of components by independent certifying staff and by organisations not holding a</p>

"C" rating.

Nevertheless, the release of this work will be subject to aircraft release requirements and will not be eligible for the issuance of a Form 1.

comment

331

comment by: *Sinclair Smith*

Part M. Art/Nr/chapter M.A.502

This proposal is much too complex for light aircraft and gliders and is already covered by the issue of Form 1.

response

*Partially accepted*

M.A.502 has been modified in order to permit some extent of maintenance of components by independent certifying staff and by organisations not holding a "C" rating.

Nevertheless, the release of this work will be subject to aircraft release requirements and will not be eligible for the issuance of a Form 1.

comment

398

comment by: *Bill Taylor*

**MA 504 - Control of Unserviceable Components.** As it stands, this MA requires parts which have reached a life limit or have a non-repairable defect to be mutilated before they may be released back to their owner. They can only be released in the unmutiated condition if they are being passed to an organisation for use in training or research.

This is an imposition and devaluation of an owner's property and whilst perhaps appropriate to stop the use of bogus parts within commercial air transport, it is wholly inappropriate and disproportionate in the field of light aviation. In this sector of aviation, owners often store (clearly marked) unserviceable components for several years, by which time a new repair or salvage technique might be developed or a design organisation might conduct some form of re-lifing exercise. To have parts mutilated before release to their owner will prevent the future use of these components when appropriate repair or relifing data becomes available. The requirement for storage in 'a secure location under the control of an MA502 approved organisation' is overly prescriptive for non-CAT sport/General aviation. The only necessary requirement for safety is that preparedness of an appropriately qualified engineer or an approved organisation to inspect and repair or overhaul the part and release it with a Form 1.

This rule has been wholly driven by the 'bogus part' issue in commercial air transport where commercial and significant safety issues prevail. This requirement is disproportionate on non-commercial and Sport/GA where many parts may be released to commercial standard or safely recycled. While the previous history and stocking of a part may in limited cases be of significance, the judgement should be at the discretion of the appropriate Part 66 certifying staff or approved organisation.

**Action Required.**

Accordingly, it recommended that the following additional para (f) be added to MA 504:

*(f) By derogation, for aircraft complying with Part 21, 21A.14(b) and 21A.14(c) (ELA 1 and ELA 2) and not involved in commercial air transport, unserviceable components may be released to the aircraft owner provided that they are clearly labelled with details of the unserviceability.*

response

Accepted

M.A.504 has been amended in order to include the possibility to transfer an unserviceable component to the owner under certain conditions.

comment

402

comment by: CAA-NL, SCI

Aircraft maintenance manual was clearly defined; is component maintenance or overhaul manual data strictly no part of aircraft maintenance data?

Text change makes it inconsistent with Part-145 Appendix II, item 4.

response

Accepted

M.A.502(b) has been reworded to distinguish aircraft maintenance data and component maintenance data.

Part-145 Appendix II and Part-M Appendix IV have been amended in order to be consistent with the changes introduced in M.A.502(b).

comment

477

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

DAeC welcomes these rule changes as an improvement.

response

Noted

comment

502

comment by: European Gliding Union (EGU)

EGU welcomes these rule changes as an improvement.

response

Noted

comment

526

comment by: Damian LE ROUX

Un-necessary for private light aircraft. Will add significantly to complexity and cost.

response

Noted

See changes in M.A.502.

comment

537

comment by: Marie THERY

**Proposition:**

The second sentence of the proposed M.A.502(b) should be revised to read:  
**"The approved organisation or M.A.801(b)2 certifying staff Such**



components, nevertheless, can be temporarily removed **such component** for maintenance, **in order to improve access**, when such removal is expressly permitted by the aircraft maintenance data ~~to improve access.~~"

**Rationale:**

This wording makes clear that maintenance on a component, even if in accordance with aircraft maintenance data, by an approved maintenance organisation different from the person or organisation which has removed and which will re-install the component should be considered as component maintenance requiring a C rated organisation and the issue of a Form 1.

response

*Accepted*

M.A.502(b) has been amended accordingly.

comment

678

comment by: *Royal Swedish Aero Club*

The component maintenance approval sub-categories are over-elaborate for GA/sport applications. Essentially any part removed from an airframe becomes a component requiring a separate component approval. This is unnecessarily complex for GA and is anyway covered by rules associated issue of Form1.

Justification

While it can be argued that these extant ATA categories can be intelligently applied by NAA's it is already clear that this is not happening. Additional justification and approval negotiations are being required to secure separate component approvals. A wider view of components classification is justified in Sport/GA, with a broader approval for basic airframe structure and control components included in the fundamental approval. The only separate component approvals necessary in this sector are for built in systems such as Electrical (C5), Avionics - Nav and Comms (C3) Engine and APU(C7), Fuel (C9), Helicopter Rotors and Transmission (C10/11), Propellers (C13).

response

*Partially accepted*

See reply to comment 203.

In any case, the Agency considers that all existing ratings for components (C01 to C20) are necessary, in case maintenance has to be performed on a component in the workshop, requiring the issuance of a Form 1.

**B. Draft Rules - II. Draft Opinion (EC) No 2042/2003 - M.A.615 Privileges of the organisation**

p. 52

comment

188

comment by: *DAO Aviation A/S*

We suggest that the EASA use this opportunity where both this NPA and NPA 2007-13 are in play, to either -

1: Make the authorized release tag for Subpart M(F) shop clearly distinguishable from from a Form 1 from a Part-145 shop (e.g. by a different number), to avoid potential inadvertant purchase/installation on commercially operated A/C.

or-

2: Allow components released to service from Subpart M(F) shops on EASA Form 1's to be eligible for installation in commercially operated A/C, on an equal basis with those from Part-145 shops.

We find Option 2 preferable, because we fail to find any justification why e.g. a valve for a PA28 which has been serviced (or removed from an A/C) in a Subpart F shop, is more "unsafe" than the same valve from a Part-145 shop (they work iaw. the same AMM's, CMM's etc.).

Furthermore the current situation can/will create a lot of un-necessary costs for the owner of a small A/C if he wishes to move from a private operation with potential Subpart M(F) parts installed in the A/C, to a commercial operation.

response *Partially accepted*

As a result of CRD 07/2005, the Form 1 was modified to clearly include a release statement when maintenance was performed by a Subpart F organisation (there is a release in accordance with M.A.613).

In addition, the approval reference of the organisation clearly shows that it is a Subpart F organisation and the box corresponding to the Release in accordance with Part-145 is not ticked.

Nevertheless, a new sentence has been added as part of the release statement:

"... THIS IS NOT A RELEASE UNDER PART-145".

In relation to your comment stating that the requirements should be the same for commercial air transport and for other types of operations, the Agency does not agree.

Although Subpart F and Part-145 organisations work using the same AMMs, etc, they don't use the same procedures and they are not subject to the same requirements and controls.

The risks and liabilities involved in Commercial Air Transport are higher and, as such, they justify more stringent requirements.

comment 192

comment by: *Bill Taylor*

MA 601 - Scope. As explained in previous comments, the whole ethos of Part M is wholly inappropriate for the needs of light GA and gliders etc. Here, a single organisation is needed which can both carry out the aircraft maintenance tasks, but also carry out the duties of the continued airworthiness management organisation. This has already been done extremely successfully in the UK by single organisations such as the 'M3'. Here the M3 recommends the issue of the CofA and then has the ability to extend it annually for two years, with the CofA renewal taking the form of a Star Annual on the third year. The essence of the Star Annual is an Airworthiness Review. There is no economic justification for the need for both Subpart F and Subpart G organisations, both needing separate Expositions, separate Staff, separate Premises, etc etc etc. All this adds to cost and has no benefit to improved safety, certainly as has been demonstrated for many years in the UK. The imposition of this system will add so much to bureaucracy and therefore costs

that it will run counter to the best interests of safety. Part M must therefore be amended to allow the Subpart F to fulfill the role of Subpart G also, all under a single approval, a single Exposition and, most importantly, a single fee.

**Action Required.** Accordingly, it is proposed that the following sentence be added to MA 601:

*By derogation, for aircraft complying with Part 21, 21A.14(b) and 21A.14(c) (ELA 1 and ELA 2) and not involved in commercial air transport, the Part M Subpart F organisation may also fulfill the role of the Subpart G Continuing Airworthiness Management Organisation.*

response *Partially accepted*

Part-M, Subpart F contains the requirements necessary to obtain an approval as a maintenance organisation. These requirements do not cover the continuing airworthiness management of aircraft.

Nevertheless, nothing prevents a Subpart F organisation to apply for a Subpart G approval (CAMO) so they can perform airworthiness managements tasks, airworthiness reviews, issuance of airworthiness review certificates, approval of maintenance programmes, etc.

Amendments have been introduced to the following paragraphs in order to facilitate the double approval (single application format, single exposition, common audits):

AMC M.A.602, AMC M.A.702, AMC M.A.704, AMC M.B.604(b) and AMC M.B.704(b).

Refer also to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment 193

comment by: *Bill Taylor*

MA 606 - Personnel Requirements. As explained in previous comments, the whole ethos of Part M is wholly inappropriate for the needs of light GA and gliders etc. Here, a single organisation is needed which can both carry out the aircraft maintenance tasks, but also carry out the duties of the continued airworthiness management organisation. This has already been done extremely successfully in the UK by single organisations such as the 'M3'. Here the M3 recommends the issue of the CofA and then has the ability to extend it annually for two years, with the CofA renewal taking the form of a Star Annual on the third year. The essence of the Star Annual is an Airworthiness Review. There is no economic justification for the need for both Subpart F and Subpart G organisations, both needing separate Expositions, separate Staff, separate Premises, etc etc etc. All this adds to cost and has no benefit to improved safety, certainly as has been demonstrated for many years in the UK. The imposition of this system will add so much to bureaucracy and therefore costs that it will run counter to the best interests of safety. Part M must therefore be amended to allow the Subpart F to fulfill the role of Subpart G also, all under a single approval, a single Exposition and, most importantly, a single fee.

**Action Required.** Accordingly, the following new subpara (h) should be added to MA 606:

*(h) By derogation, for aircraft complying with Part 21, 21A.14(b) and 21A.14(c) (ELA 1 and ELA 2) and not involved in commercial air transport, the Part M Subpart F organisation may also carry out an airworthiness review and issue an airworthiness review certificate provided that its personnel meet the requirements of MA 707(a)2.*

response *Partially accepted*

Part-M, Subpart F contains the requirements necessary to obtain an approval as a maintenance organisation. These requirements do not cover the continuing airworthiness management of aircraft.

Nevertheless, nothing prevents a Subpart F organisation to apply for a Subpart G approval (CAMO) so they can perform airworthiness managements tasks, airworthiness reviews, issuance of airworthiness review certificates, approval of maintenance programmes, etc.

Amendments have been introduced to the following paragraphs in order to facilitate the double approval (single application format, single exposition, common audits):

AMC M.A.602, AMC M.A.702, AMC M.A.704, AMC M.B.604(b) and AMC M.B.704(b).

Refer also to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment 195

comment by: *Bill Taylor*

MA 615 - Privileges of the Organisation. As explained in previous comments, the whole ethos of Part M is wholly inappropriate for the needs of light GA and gliders etc. Here, a single organisation is needed which can both carry out the aircraft maintenance tasks, but also carry out the duties of the continued airworthiness management organisation. This has already been done extremely successfully in the UK by single organisations such as the 'M3'. Here the M3 recommends the issue of the CofA and then has the ability to extend it annually for two years, with the CofA renewal taking the form of a Star Annual on the third year. The essence of the Star Annual is an Airworthiness Review. There is no economic justification for the need for both Subpart F and Subpart G organisations, both needing separate Expositions, separate Staff, separate Premises, etc etc etc. All this adds to cost and has no benefit to improved safety, certainly as has been demonstrated for many years in the UK. The imposition of this system will add so much to bureaucracy and therefore costs that it will run counter to the best interests of safety. Part M must therefore be amended to allow the Subpart F to fulfill the role of Subpart G also, all under a single approval, a single Exposition and, most importantly, a single fee.

**Action Required.** Accordingly, the following new subpara 4. should be added to MA 615:

*4. By derogation, for aircraft complying with Part 21, 21A.14(b) and 21A.14(c) (ELA 1 and ELA 2) and not involved in commercial air transport, the Part M Subpart F organisation may also carry out an airworthiness review and issue or extend an airworthiness review certificate.*

response *Partially accepted*

Part-M, Subpart F contains the requirements necessary to obtain an approval as a maintenance organisation. These requirements do not cover the continuing airworthiness management of aircraft.

Nevertheless, nothing prevents a Subpart F organisation to apply for a Subpart G approval (CAMO) so they can perform airworthiness managements tasks, airworthiness reviews, issuance of airworthiness review certificates, approval of maintenance programmes, etc.

Amendments have been introduced to the following paragraphs in order to facilitate the double approval (single application format, single exposition, common audits):

AMC M.A.602, AMC M.A.702, AMC M.A.704, AMC M.B.604(b) and AMC M.B.704(b).

Refer also to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment

254

comment by: *Roderick Weaver*

The need to maintain proper instrumentation properly installed is accepted.

Proper instrumetation should be restricted to the minimun flight instruments for safety as set out in the flight manual.

Any additional intruments should be treated separately and do not need to come under the same burdensome regulation.

e.g instaling "FLARM" is generally considered to be a good thing for collision avoidance in gliders, the proposed regulation will inhibit the instalation of such improvements and other safety improvements and thereby actually increase danger of mid-air collision or other accidents.

response

*Not accepted*

Although some non-required instruments/equipment may qualify as "standard parts" (see Decision ED 2006/13/R) not requiring a Form 1, there is still a need for an installation approval because these instruments may interfere with other instruments, share the electrical installations, or may affect the weight & balance of the aircraft.

comment

394

comment by: *Barry Plumb*

For light aircraft not used for commercial purposes the subpart F approved organisation should be granted the privilege to carry out the function of a CAMO, carry out the airworthiness review, issue or recommend issue of the ARC and extend it twice.

response

*Partially accepted*

Part-M, Subpart F contains the requirements necessary to obtain an approval as a maintenance organisation. These requirements do not cover the continuing airworthiness management of aircraft.

Nevertheless, nothing prevents a Subpart F organisation to apply for a Subpart G approval (CAMO) so they can perform airworthiness managements tasks, airworthiness reviews, issuance of airworthiness review certificates, approval of maintenance programmes, etc.

Amendments have been introduced to the following paragraphs in order to facilitate the double approval (single application format, single exposition,

common audits):

AMC M.A.602, AMC M.A.702, AMC M.A.704, AMC M.B.604(b) and AMC M.B.704(b).

Refer also to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment	<p>410 <span style="float: right;">comment by: <i>Tom Snoddy</i></span></p> <p>Page 52</p> <p>The proposed arrangement for component maintenance are over complicated for simple aircraft and gliders.</p>
response	<p><i>Partially accepted</i></p> <p>M.A.502 has been modified in order to permit some extent of maintenance of components by independent certifying staff and by organisations not holding a "C" rating.</p> <p>Nevertheless, the release of this work will be subject to aircraft release requirements and will not be eligible for the issuance of a Form 1.</p>
comment	<p>457 <span style="float: right;">comment by: <i>Fédération Francaise Aéronautique</i></span></p> <p>We propose to modify M.A. 615 (page 105/144) as follows :</p> <p>2. ....</p> <p>3. Arrange for the performance of specialized services at another organisation <u>with appropriately qualified personnel</u> and under the control of the Subpart F organisation in accordance with procedures described in its Maintenance Organisation Manual as directly approved by the competent authority. This refers to work carried out by a specialised service organisation not appropriately approved itself to carry out such tasks under Part-M or Part-145.</p> <p>JUSTIFICATION: It may be easier to use appropriately approved personnel rather than to deal with their qualified organisation in order to define where work is performed outside the Subpart F organisation.</p>
response	<p><i>Not accepted</i></p> <p>"Appropriately qualified" involves more than just the qualification of personnel. It includes facilities, tooling, equipment, etc.</p>
comment	<p>478 <span style="float: right;">comment by: <i>Deutscher Aero Club e.V. (DAeC)</i></span></p> <p>DAeC welcomes these rule changes as an improvement.</p>
response	<p><i>Noted</i></p>

comment	503	comment by: <i>European Gliding Union (EGU)</i>
	EGU welcomes these rule changes as an improvement.	
response	<i>Noted</i>	
comment	525	comment by: <i>Damian LE ROUX</i>
	error	
response	<i>Noted</i>	
	The remark is considered as a wrong comment.	
comment	592	comment by: <i>DULV</i>
	MA 606 - Personnel Requirements.	
	<p>As explained in previous comments, the whole ethos of Part M is wholly inappropriate for the needs of light GA and gliders (eventually ELA) etc. Here, a single organisation is needed which can both, carry out the aircraft maintenance tasks, but also carry out the duties of the continued airworthiness management organisation. This has already been done extremely successfully in Germany by single organisations such as the LBA or assessment bodies as DULV or DAeC. There is no economic justification for the need for both Subpart F and Subpart G organisations, both needing separate Expositions, separate Staff, separate Premises, etc. All this adds to cost and has no benefit to improved safety, certainly as has been demonstrated for many years in Germany and other countries. The imposition of this system will add so much to bureaucracy and therefore costs that it will run counter to the best interests of safety. Part M must therefore be amended to allow the Subpart F to fulfil the role of Subpart G also, all under a single approval, a single Exposition and, most importantly, a single fee.</p> <p>Accordingly, the following new sub-para (h) should be added to MA 606:</p> <p><b><i>(h) By derogation, for aircraft complying with Part 21, 21A.14 (b) and 21A.14 (c) (ELA1 and ELA 2) and not involved in commercial air transport, the Part M Subpart F organisation may also carry out an airworthiness review and issue an airworthiness review certificate provided that its personnel meet the requirements of MA 707(a)2.</i></b></p>	
response	<i>Partially accepted</i>	
	<p>Part-M, Subpart F contains the requirements necessary to obtain an approval as a maintenance organisation. These requirements do not cover the continuing airworthiness management of aircraft.</p> <p>Nevertheless, nothing prevents a Subpart F organisation to apply for a Subpart G approval (CAMO) so they can perform airworthiness managements tasks, airworthiness reviews, issuance of airworthiness review certificates, approval of maintenance programmes, etc.</p> <p>Amendments have been introduced to the following paragraphs in order to facilitate the double approval (single application format, single exposition, common audits):</p> <p>AMC M.A.602, AMC M.A.702, AMC M.A.704, AMC M.B.604(b) and AMC</p>	

M.B.704(b).

Refer also to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment

593

comment by: DULV

MA 615 - Privileges of the Organisation.

As explained in previous comments, the whole ethos of Part M is wholly inappropriate for the needs of light GA and gliders (eventually ELA) etc. Here, a single organisation is needed which can both, carry out the aircraft maintenance tasks, but also carry out the duties of the continued airworthiness management organisation. This has already been done extremely successfully in Germany by single organisations such as the LBA or assessment bodies as DULV or DAeC. There is no economic justification for the need for both Subpart F and Subpart G organisations, both needing separate Expositions, separate Staff, separate Premises, etc. All this adds to cost and has no benefit to improved safety, certainly as has been demonstrated for many years in Germany and other countries. The imposition of this system will add so much to bureaucracy and therefore costs that it will run counter to the best interests of safety. Part M must therefore be amended to allow the Subpart F to fulfil the role of Subpart G also, all under a single approval, a single Exposition and, most importantly, a single fee.

Accordingly, the following new sub-para 4. should be added to MA 615:

**4. By derogation, for aircraft complying with Part 21, 21A.14(b) and 21A.14(c) (ELA1 and ELA 2) and not involved in commercial air transport, the Part M Subpart F organisation may also carry out an airworthiness review and issue or extend an airworthiness review certificate.**

response

*Partially accepted*

Part-M, Subpart F contains the requirements necessary to obtain an approval as a maintenance organisation. These requirements do not cover the continuing airworthiness management of aircraft.

Nevertheless, nothing prevents a Subpart F organisation to apply for a Subpart G approval (CAMO) so they can perform airworthiness managements tasks, airworthiness reviews, issuance of airworthiness review certificates, approval of maintenance programmes, etc.

Amendments have been introduced to the following paragraphs in order to facilitate the double approval (single application format, single exposition, common audits):

AMC M.A.602, AMC M.A.702, AMC M.A.704, AMC M.B.604(b) and AMC M.B.704(b).

Refer also to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment

666

comment by: IAOPA Europe

MA 601 - Scope. As explained in previous comments, the whole ethos of Part M is wholly inappropriate for the needs of light GA and gliders (eventually ELA)



etc. Here, a single organisation is needed which can both, carry out the aircraft maintenance tasks, but also carry out the duties of the continued airworthiness management organisation. This has already been done extremely successfully in the UK by single organisations such as the 'M3'. Here the M3 recommends the issue of the CofA and then has the ability to extend it annually for two years, with the CofA renewal taking the form of a Star Annual on the third year. The essence of the Star Annual is an Airworthiness Review. There is no economic justification for the need for both Subpart F and Subpart G organisations, both needing separate Expositions, separate Staff, separate Premises, etc. All this adds to cost and has no benefit to improved safety, certainly as has been demonstrated for many years in the UK. The imposition of this system will add so much to bureaucracy and therefore costs that it will run counter to the best interests of safety. Part M must therefore be amended to allow the Subpart F to fulfil the role of Subpart G also, all under a single approval, a single Exposition and, most importantly, a single fee.

Accordingly, it is proposed that the following sentence be added to MA 601:

By derogation, for aircraft complying with Part 21, 21A.14(b) and 21A.14(c) (ELA1 and ELA 2) and not involved in commercial air transport, the Part M Subpart F organisation may also fulfil the role of the Subpart G Continuing Airworthiness Management Organisation.

response *Partially accepted*

Part-M, Subpart F contains the requirements necessary to obtain an approval as a maintenance organisation. These requirements do not cover the continuing airworthiness management of aircraft.

Nevertheless, nothing prevents a Subpart F organisation to apply for a Subpart G approval (CAMO) so they can perform airworthiness managements tasks, airworthiness reviews, issuance of airworthiness review certificates, approval of maintenance programmes, etc.

Amendments have been introduced to the following paragraphs in order to facilitate the double approval (single application format, single exposition, common audits):

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Refer also to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment 667

comment by: IAOPA Europe

MA 606 - Personnel Requirements.

As explained in previous comments, the whole ethos of Part M is wholly inappropriate for the needs of light GA and gliders (eventually ELA) etc. Here, a single organisation is needed which can both, carry out the aircraft maintenance tasks, but also carry out the duties of the continued airworthiness management organisation. This has already been done extremely successfully in Germany by single organisations such as the LBA or assessment bodies as DULV or DAeC. There is no economic justification for the need for both Subpart F and Subpart G organisations, both needing separate Expositions, separate Staff, separate Premises, etc. All this adds to cost and has no benefit to improved safety, certainly as has been demonstrated for many years in

Germany and other countries. The imposition of this system will add so much to bureaucracy and therefore costs that it will run counter to the best interests of safety. Part M must therefore be amended to allow the Subpart F to fulfil the role of Subpart G also, all under a single approval, a single Exposition and, most importantly, a single fee.

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response *Partially accepted*

Part-M, Subpart F contains the requirements necessary to obtain an approval as a maintenance organisation. These requirements do not cover the continuing airworthiness management of aircraft.

Nevertheless, nothing prevents a Subpart F organisation to apply for a Subpart G approval (CAMO) so they can perform airworthiness managements tasks, airworthiness reviews, issuance of airworthiness review certificates, approval of maintenance programmes, etc.

Amendments have been introduced to the following paragraphs in order to facilitate the double approval (single application format, single exposition, common audits):

AMC M.A.602, AMC M.A.702, AMC M.A.704, AMC M.B.604(b) and AMC M.B.704(b).

Refer also to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment 668

comment by: IAOPA Europe

MA 615 - Privileges of the Organisation.

As explained in previous comments, the whole ethos of Part M is wholly inappropriate for the needs of light GA and gliders (eventually ELA) etc. Here, a single organisation is needed which can both, carry out the aircraft maintenance tasks, but also carry out the duties of the continued airworthiness management organisation. This has already been done extremely successfully in Germany by single organisations such as the LBA or assessment bodies as DULV or DAeC. There is no economic justification for the need for both Subpart F and Subpart G organisations, both needing separate Expositions, separate Staff, separate Premises, etc. All this adds to cost and has no benefit to improved safety, certainly as has been demonstrated for many years in Germany and other countries. The imposition of this system will add so much to bureaucracy and therefore costs that it will run counter to the best interests of safety. Part M must therefore be amended to allow the Subpart F to fulfil the role of Subpart G also, all under a single approval, a single Exposition and, most importantly, a single fee.

Accordingly, the following new sub-para 4. should be added to MA 615:

**4. By derogation, for aircraft complying with Part 21, 21A.14(b) and 21A.14(c) (ELA1 and ELA 2) and not involved in commercial air transport, the Part M Subpart F organisation may also carry out an airworthiness review and issue or extend an airworthiness review certificate.**

response *Partially accepted*

Part-M, Subpart F contains the requirements necessary to obtain an approval as a maintenance organisation. These requirements do not cover the continuing airworthiness management of aircraft.

Nevertheless, nothing prevents a Subpart F organisation to apply for a Subpart G approval (CAMO) so they can perform airworthiness managements tasks, airworthiness reviews, issuance of airworthiness review certificates, approval of maintenance programmes, etc.

Amendments have been introduced to the following paragraphs in order to facilitate the double approval (single application format, single exposition, common audits):

AMC M.A.602, AMC M.A.702, AMC M.A.704, AMC M.B.604(b) and AMC M.B.704(b).

Refer also to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

**B. Draft Rules - II. Draft Opinion (EC) No 2042/2003 - M.A.707  
Airworthiness review staff**

p. 52-53

comment

*I*

comment by: *BPvL e. V.*

An aircraft is an aircraft. There is no reason other than an economical to make a difference between maintenance and/or airworthiness review for commercial or non commercial aircrafts. The hole in the ground will be the same size after a crash. Maintaining non commercial aircrafts not on the same high level than commercial aircrafts will reduce the safety of flight. In Germany you need the highest certifying staff qualification for signing an aircraft airworthy after that annual inspection. To get that inspectors level you have to pass more and higher skills training than for the standard Cat-B staff.

Pilot owned maintenance performed by amateurs will not only kill themselves, they also endanger others.

response

*Not accepted*

Commercial Air Transport requirements are more strict because of the higher risks and liabilities involved.

This justifies the introduction of alleviated requirements for aircraft not involved in Commercial Air Transport.

comment

*47*

comment by: *Ian HEY*

MA 701 onwards

The concept of a CAMO for aircraft under 2730 kg and not operating under an Air Operator Certificate is unnecessary since it adds complexity and

considerable cost to the operation of these aircraft with no complementary improvement in safety.

Currently for aircraft under 2730 kg operated without an AOC in the UK the CAA Light Aircraft Maintenance Schedule is applicable, and this requires the Licensed Engineer to check at least annually that all mandatory ADs and modifications have been applied to the aircraft. A similar system operates for gliders and other light aircraft in the UK.

The current system clearly works, since aircraft below 2730 kg are not regularly crashing due to technical faults or non implementation of ADs.

Delete the requirement for a CAMO for aircraft under 2730 kg and not operating under an Air Operator Certificate. Make an annual review of mandatory modifications and ADs a compulsory feature of the Maintenance Schedule for these aircraft. (For aircraft in the UK, and almost certainly all over Europe, this would be no change to the current regime, and therefore no additional cost or complexity.)

response *Not accepted*

There is no obligation to contract a CAMO for non-large aircraft not involved in commercial air transport.

In addition, the ARC can be issued by the competent authority for aircraft not involved in commercial air transport equal or below 2730 Kg MTOM.

comment 90

comment by: DGAC France

1) A number of persons likely to be proposed as airworthiness review staff are often coming from years of practicing maintenance and airworthiness management, without the ability to provide authorities with diploma or required formal training certificates.

In order to facilitate their approval, we should authorise NAA to accept additional experience in place of a diploma.

2) We consider that part of the continuing airworthiness experience required should be continuing airworthiness management.

We thus propose:

a) to modify M.A.707(a).2 as follows,

"2. For aircraft of 2730 Kg MTOM and below, that are not used in commercial air transport:

**A. either:**

**a\_i.)** at least three years of appropriate experience in continuing airworthiness, and;

**b\_**an appropriate Part 66 licence, or a nationally-recognized maintenance personnel qualification appropriate to the aircraft category (when Part-66 refers to national rules) or an aeronautical degree or equivalent, **or**

ii.) at least five years of appropriate experience in continuing airworthiness, and

-

**eB.** appropriate aeronautical maintenance training, and;

**dC.** a position within the approved organisation with appropriate responsibilities"

b) to envisage a similar recognition of experience for non commercial aircraft over 2730kg

c) include in AMC M.A.707(a)(2) the following:

"appropriate experience in continuing airworthiness should include experience in continuing airworthiness management of

- one year for airworthiness review staff complying with M.A.707(a)(2)A.i.

- two years for airworthiness review staff complying with M.A.707(a)(2) A.i.i."

response *Partially accepted*

M.A.707(a) and AMC M.A.706 have been amended to include the intent of your proposal, although with a different number of years of experience.

comment *101*

comment by: *Ludwig Hessler*

PROPOSED TEXT:

... Aircraft used ~~in commercial air transport~~ and by an owner which holds an AOC in accordance with M.A.201 (g) to (i) or aircraft above 2730 kg MTOM,...

JUSTIFICATION:

Use the wording, because all aircraft used by an organisation which holds an AOC should be treated under the conditions mentioned in 1.

response *Not accepted*

The opinion of the Agency is that Commercial Air Transport has higher risks and liabilities than other operational activities and, as a consequence, the requirements should not be the same.

comment *171*

comment by: *Derek Wilson*

Overview/Audit of processes within the CAMO concept is again way over the top for airworthiness of airport/GA. As drafted in NPA2007/08 an already approved CAMO operates with the following constraints:

The requirement for independent Airworthiness review staff (MA707) increasing the staffing requirements on all but the 'one-man CAMO'. This makes small organisations overburdened with meaningless segregation of role to the extent that additional staff will be required which within gliding in particular is not financially sustainable.

- An externally executed Quality Audit, or internal review (MA712) to be carried out at stipulated intervals.

- The continuing obligation of an NAA to make external audits to its satisfaction at any time at the CAMO's expense.

All of these measures are applied to an office based bureaucratic function, not even actually engaged in work on airframes increasing costs with no discernable safety benefit (see earlier comment about disregarding the comparable safety record of the deregulated BGA vs national airworthiness schemes.

response *Not accepted*

There is no obligation to have separate airworthiness review staff. In the

particular case of a small CAMO, persons already employed and with overall authority can be nominated as airworthiness review staff.

In addition, continuing airworthiness management tasks are as important as maintenance tasks, because if not performed properly you face the risk of not performing all the required maintenance.

Refer also to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment 206 comment by: Ted Norman

This is written in the usual lets make jobs for the boys way lets have a quality system at as many levels as possible. Whats wrong with the NAA doing an audit at periodic intervals? It would keep the costs down. These are totally unnecessary functions in light aviation engineering, Once again no SAFETY case and no thought for costs. Just the convieience of the bureaucrat.

response *Noted*  
Refer to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment 246 comment by: SFVS

The staff counted should only be full time staff and part time staff can be recalculated to prove that only an equivalent to 5 staff is employed.

response *Accepted*  
AMC M.A.712(f) has been amended accordingly.

comment 296 comment by: ICAA

The weight limits of 2730 Kgs do not correlate with the WG 66.022 regarding the B3 AML. The draft NPA for this WG proposal of weight limits should be in line with the NPA 2007-08.

response *Not accepted*  
Harmonizing the weight to 2000Kg would mean an unnecessary burden because many aircraft would not be eligible for the reduced requirements introduced in this amended Part-M (those between 2000 and 2730 Kg). The current text already includes 2730 Kg as the limit for pilot owner maintenance. In addition, there is not a significant difference on how to manage aircraft of 2000 Kg and aircraft of 2730 Kg.  
Harmonizing the weight to 2730 Kg would mean to include in the B3 license aircraft which are significantly more complex in terms of maintenance (pressurization, more complex avionic systems, etc). This would mean to significantly increase the level of training, which is opposite to the objective of the task.

comment 318 comment by: Nick Norman

The requirement for separate airworthiness review staff is inappropriate to the small CAMO supporting only light aircraft in non-CAT role. It represents a large increase in staffing burden with no relevant justification in terms of safety. The

audit requirements similarly relate primarily to "paperwork safety" which bears no relation to real safety in all but the largest organisations.

In recreational aviation CAMOs may be staffed by volunteers who are carrying out their duties driven by enthusiasm and not by salary, and without pressures associated with profit-making organisations. Their time is best spent on carrying out real maintenance tasks, not paper ones.

response *Not accepted*

There is no obligation to have separate airworthiness review staff. In the particular case of a small CAMO, persons already employed and with overall authority can be nominated as airworthiness review staff.

In addition, continuing airworthiness management tasks are as important as maintenance tasks, because if not performed properly you face the risk of not performing all the required maintenance.

comment 344 comment by: *Swedish Civil Aviation Authority (Luftfartsstyrelsen)*

The weight limits of 2730 Kgs do not correlate with the WG 66.022 regarding the B3 AML. The draft NPA for this WG proposal of weight limits should be in line with the NPA 2007-08.

response *Not accepted*

Harmonizing the weight to 2000Kg would mean an unnecessary burden because many aircraft would not be eligible for the reduced requirements introduced in this amended Part-M (those between 2000 and 2730 Kg). The current text already includes 2730 Kg as the limit for pilot owner maintenance. In addition, there is not a significant difference on how to manage aircraft of 2000 Kg and aircraft of 2730 Kg.

Harmonizing the weight to 2730 Kg would mean to include in the B3 license aircraft which are significantly more complex in terms of maintenance (pressurization, more complex avionic systems, etc). This would mean to significantly increase the level of training, which is opposite to the objective of the task.

comment 362 comment by: *UK CAA*

PARAGRAPH: M.A.707 (a) last sentence

COMMENT:

There is no justification/explanation for the deletion of the words "in addition to M.A.706 requirements".

JUSTIFICATION:

Text should not be deleted without justification / explanation, the deletion of this text removes clarity and the link to M.A.706.

response *Noted*

The text was removed during the NPA because the nomination of a person as airworthiness review staff does not imply that this person participates in the

airworthiness management.

As a consequence, any qualification requirement contained in M.A.706 that has been found applicable to the airworthiness review staff has been included also in the AMC material of M.A.707.

comment 368

comment by: UK CAA

**MA707 (2), AMC 707 (a)(2), MA712 (f), MA901 (d) (e) MB902 (2) AMC MB902 (b) (2) & Appendix VIII**

COMMENT:

Increase the cut-off point from 2730Kg MTOM to 5700Kg MTOM for Balloons where different rules apply within the above Part M paragraphs.

JUSTIFICATION:

The 2730Kgs MTOM limitation for Balloons to apply different rules to that of balloons over 2730Kg MTOM is not consistent with the change in technology seen in other forms of aircraft.

Hot Air & Gas Balloons below 2730 Kgs MTOM

There are six main areas within Part-M subpart G. and/or subpart I, where either 2730 kgs or Commercial Air transport (CAT) is used as a point for balloons to introduce different rules, with regard to the certification of continued airworthiness: - 1. The organisational review in lieu of a quality system.

2. Alleviation in the qualification requirements of the Continued Airworthiness Management and ARC signatory staff.
3. Pilot Owner maintenance.
4. The need for an aircraft to be in a controlled environment for 12 months prior to issue the ARC.
5. Subpart G organisations cannot make "recommendations" for aircraft under 2730Kgs
6. Aircraft <2730Kgs and not CAT do not require an approved maintenance facility for the ARC to be issued, providing the regulations are applied.

Firstly balloons are not currently considered as Commercial Air Transport (CAT), and it is believed that EASA do not intend to change the definition of CAT within Part M, irrespective of the definition for 'commercial activities' being currently discussed. The problem is that there is no difference between the technology of a Balloon being 2730Kg or less and those of >2730Kgs. This creates a two-tier system not based on CAT or Private but on the MTOM of the balloon, where there is no difference in technology, and where there has never been a difference identified previously. Unlike other forms of aircraft the major components of a balloon can be interchanged such that the same Burner or



Cylinder used on a 60, 000 cu.ft balloon would equally be acceptable to be used on a 600, 000 cu ft balloon. Therefore unnecessary controls would need to be introduced. For example in the proposed NPA2007-08, Cylinders and Burners where an "ARC review" had been carried out by a signatory with the below proposed 2730kg qualifications, these could not be fitted to a balloon of above 2730Kgs without placards and other unnecessary limiting documentation being completed. Similarly a balloon just above the 2370Kgs MTOM would not be able to have the ARC issued by a Subpart G organisation on an annual basis, when not in a controlled environment, as a balloon of similar technology could below 2730Kgs MTOM. The proposal would be to apply in the cases above to balloons not below 5700Kgs MTOM excluding those used for Commercial Air Transport.

PROPOSED TEXT:

(add balloons below 5700 Kg) as the example below :-  
For aircraft below 2730Kg MTOM (or balloons below 5700 Kg) that are not used for commercial air transport.....

response

*Accepted*

The alleviated requirements have been revised to be applicable also to balloons of any size.

comment

458

comment by: *Fédération Francaise Aéronautique*

We approve M.A 707(a), 2, (a) (page 107/144). Three years experience instead of five years was one of our requests on the 07-2005 NPA.

response

*Noted*

comment

479

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

DAeC welcomes these rule changes as an improvement.

response

*Noted*

comment

504

comment by: *European Gliding Union (EGU)*

EGU welcomes these rule changes as an improvement.

response

*Noted*

comment

669

comment by: *CAA Finland, Communications*

**M.A.707(a) 1./2.**

The weight limits of 2730 Kgs do not correlate with the WG 66.022 regarding the B3 Part 66 License. The draft NPA for this WG proposal of weight limits should be in line with the NPA 2007-08.

response

*Not accepted*

Harmonizing the weight to 2000Kg would mean an unnecessary burden because many aircraft would not be eligible for the reduced requirements introduced in this amended Part-M (those between 2000 and 2730 Kg). The current text already includes 2730 Kg as the limit for pilot owner maintenance. In addition, there is not a significant difference on how to manage aircraft of 2000 Kg and aircraft of 2730 Kg.

Harmonizing the weight to 2730 Kg would mean to include in the B3 license aircraft which are significantly more complex in terms of maintenance (pressurization, more complex avionic systems, etc). This would mean to significantly increase the level of training, which is opposite to the objective of the task.

comment 680

comment by: *Royal Swedish Aero Club*

Overview/Audit of processes within the CAMO concept remains unnecessarily burdensome for airworthiness of sport/General aviation. As drafted in NPA2007/08 an already approved CAMO operates with the following constraints:

- The requirement for independent Airworthiness review staff (MA707) increasing the staffing requirements on all but the 'one-man CAMO'. This makes smaller (but greater than one man) organisation overburdened with meaningless segregation of role to the extent that additional staff will be required.
- An externally executed Quality Audit, or internal review (MA712) to be carried out at stipulated intervals.
- The continuing obligation of an NAA to make external audits to its satisfaction at any time at the CAMO's expense.

All of these measures are applied to what is essentially an office based bureaucratic function, not even actually engaged in work on airframes.

#### Justification

These combined measures are wholly disproportionate to for sport/GA operations particularly if, as is the expressed intention of the EASA Rulemaking Director, sporting bodies should be enabled to take on these roles. In his view of this sporting association, an appropriate sub-set of these requirements would be:

- Complete relaxation of requirement for 'Independent Review Staff'
- Application of internal review process only for sporting bodies and associations acting as CAMO's.
- Continuing reliance on NAA's for the quality audit function.

response *Not accepted*

There is no obligation to have separate airworthiness review staff. In the particular case of a small CAMO, persons already employed and with overall authority can be nominated as airworthiness review staff.

In addition, continuing airworthiness management tasks are as important as maintenance tasks, because if not performed properly you face the risk of not performing all the required maintenance.

Refer also to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

**B. Draft Rules - II. Draft Opinion (EC) No 2042/2003 - M.A.709  
Documentation**

p. 53

comment 129

comment by: DGAC France

As written, the proposed M.A.709 in the consolidated version could be interpreted as meaning that a CAMO may be approved with no documentation at all until it has a customer, whereas the objective was probably to clarify that the CAMO need only have the "generic" documentation for the aircraft types in its scope of approval, whilst the data specific to an individual aircraft could be provided by the costumer at the time of the contract. The DGAC proposal makes that more clear and relates this issue with the one of "baseline" and "generic" maintenance programmes

See also our comment on M.A.302

We thus propose

1) to modify M.A.709 as follows

"(a) The approved continuing airworthiness management organisation shall hold and use applicable current M.A.401 maintenance data in the performance of M.A.708 continuing airworthiness tasks. ~~In the case of customer provided maintenance data, it is only necessary to have such data when there is a contract with such customer, with the exception of the need to comply with M.A.714.~~

**(b) If the continuing airworthiness management organisation does not have any aircraft under contract for part of the approved or requested scope of work, then for this part of the scope of work:**

**(1) the continuing airworthiness management organisation shall develop "baseline" and/or "generic" maintenance programmes as follows:**

- **"Baseline" maintenance programme: it is a maintenance programme developed for a particular aircraft type following the maintenance review board (MRB) report, where applicable, and the TC holder's maintenance planning document (MPD), the relevant chapters of the maintenance manual or any other maintenance data containing information on scheduling.**

- **"Generic" maintenance programme: it is a maintenance programme that may be developed to cover similar types of aircrafts. These programmes shall be based on the same type of instructions as the baseline maintenance programme.**

**(2) ~~In the case of customer provided maintenance data,~~ it is only necessary to have ~~such the maintenance data necessary to develop the baseline and/or generic maintenance programmes when there is a contract with such customer,~~ with the exception of the need to comply with**

M.A.714 for aircraft previously under contract."

2) to add a new AMC M.A.709(b) as follows:

**AMC M.A.709 Documentation**

**"Examples of "generic" maintenance programmes could be UK LAMS, Cessna 100 Series....**

**"Baseline" and "generic" maintenance programmes are not applicable to a particular aircraft registration mark, but to an aircraft type or group of types, and should be available to the competent authority prior to the initial approval and prior to the extension of the scope of an existing organisation approval.**

**After this initial approval, when an owner/operator is contracted, the baseline or generic maintenance programme, as applicable, is amended in order to incorporate the additional maintenance tasks and to indicate those that are not applicable to a particular aircraft registration mark. This may be performed by means of an Annex to the baseline/generic maintenance programme for each aircraft registration, specifying which tasks are added and which are not applicable.**

**Continuing airworthiness management organisations may seek authorisation for indirect approval in order to perform the amendments to the maintenance programme mentioned above. There is no need to change the applicable Form 14 each time a maintenance programme is amended. Only the reference to the baseline/generic maintenance programme should be included in Form 14."**

3) to introduce an AMC to M.A.714 as follows

**"In the case of customer provided data, after the contract is cancelled, the organisation shall keep in its records a copy of the customer data which was used to perform continuing airworthiness management while under contract"**

response *Accepted*

See modified text in M.A.709 and AMC M.A.709.

comment *185*

comment by: *Ludwig Hessler*

The first sentence should be amended by adding: ...or in the performance of case by case airworthiness reviews.

The second sentence should be added by: The responsibility to keep the maintenance data current must be referred to in the customer contract. It has to be with the continuing airworthiness management organisation.

**JUSTIFICATION:** In order to enable a CAMO to perform case by case airworthiness reviews it should be made clear, that the approved organization has to hold and use current maintenance data with or without a customer contract and that the used maintenance date have to be current in any case regardless of the relation between CAMO and customer. Independent from the

kind of contract between CAMO and customer and due to the important central roll the CAMO plays in managing and coordination of maintenance it must be the CAMO's responsibility that only valid and current maintenance data are used for maintenance and maintenance management.

The sentence "It has to be with the continuing airworthiness management organisation." clearly expresses that the CAMO has to secure that the maintenance data are current. "It" means the responsibility.

response *Partially accepted*

AMC M.A.709 has been modified to state that the CAMO is responsible for ensuring that maintenance data used is up to date.

However, an airworthiness review (M.A.710) contains a full documented review of the aircraft records. As a consequence, the CAMO is not using current maintenance data but the data that was current when the task was performed (by themselves or by another CAMO).

This means that current maintenance data is only necessary when performing continuing airworthiness management tasks as listed in M.A.708.

comment 406

comment by: CAA-NL, SCI

Compliance with what part of M.A.714 is meant?

response *Accepted*

This issue has been clarified in AMC M.A.709.

comment 425

comment by: Ludwig Hessler

Comment:

The situation of continuously being able to seek out a new CAMO is hereby being dealt with. The responsibility of maintaining the relevant documents is left up to the CAMO. For clarification, the following sentences should be added: The responsibility to keep the maintenance data current must be referred to in the customer contract. It has to be with the continuing airworthiness management organisation.

response *Accepted*

AMC M.A.709 has been modified to state that the CAMO is responsible for ensuring that maintenance data used is up to date.

comment 480

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

DAeC welcomes these rule changes as an improvement.

response *Noted*

comment	505	comment by: <i>European Gliding Union (EGU)</i>
	EGU welcomes these rule changes as an improvement.	
response	<i>Noted</i>	

**B. Draft Rules - II. Draft Opinion (EC) No 2042/2003 - M.A.712 Quality system**

p. 53

comment	92	comment by: <i>DGAC France</i>
	<p>During the discussion on M.A.712(f) a number of questions were raised on the requirement for a quality system for contracting continuing airworthiness management tasks. The impact of this requirement was difficult to assess as it appears that there is no common and clear understanding of what has to be considered as contracting continuing airworthiness tasks and what has not, for instance: buying a generic maintenance programme (and its updates) to establish an individual aircraft programme, buying a continuing airworthiness management software or using a tool on the Internet, using the service of a specialised entity to establish a central database common to different owners/operators, etc.</p> <p>We would recommend the Agency to follow this matter by establishing appropriate AMC/GM, and/or organising workshops/seminars, and/or establishing coordination/harmonisation meetings with the NAA, etc.</p>	
response	<i>Noted</i>	
	Please refer to amendment introduced in AMC M.A.712(f) in order to clarify what activities are not considered sub-contracting and can be performed without a Quality System.	
comment	134	comment by: <i>FFVV</i>
	<p>On behalf of FFVV French Gliding Union MA 712. Quality system</p> <p>FFVV disagree with the requirement of a Quality System for small Subpart G organisation, when contracting airworthiness management tasks. Contracting can be only a matter of computer, software and data acquisition without share of responsibilities - responsibility which remain to the subpart G organisation.</p>	
response	<i>Noted</i>	
	Please refer to amendment introduced in AMC M.A.712(f) in order to clarify what activities are not considered sub-contracting and can be performed without a Quality System.	
comment	186	comment by: <i>Ludwig Hessler</i>
	<p><b>The wording</b> Contracting continuing airworthiness management tasks is not permitted</p>	

without a Quality System" should be reconsidered and amended as follows:

"Contracting continuing airworthiness management tasks is not permitted without a Quality System unless a small organisation has established a procedure acceptable to the competent authority .

**JUSTIFICATION:**

It is felt, that small organizations need the possibility to subcontract continuing airworthiness management tasks more than organizations which have sufficient staff with adequate qualification to establish and run a quality management. The present wording seems to be a contradiction to reality in aviation industry neglecting an essential interest for small organizations.

response

*Not accepted*

A procedure acceptable to the competent authority is already required when you sub-contract activities under a Quality System.

It is not the intention of EASA to allow sub-contracting continuing airworthiness management tasks without a Quality System.

For Subpart F organisations this has been allowed in the case of sub-contracting of specialised services because it is an absolute need (it is not reasonable to expect that a small organisation gets an approval for those activities since they require a huge investment in tooling, equipment and qualification of personnel).

In the case of Subpart G organisations, the situation is very different. There is no such a large investment required.

comment

196

comment by: *Bill Taylor*

MA 712 - Quality System. As explained in previous comments, the whole ethos of Part M is wholly inappropriate for the needs of light GA and gliders etc. Here, a single organisation is needed which can both carry out the aircraft maintenance tasks, but also carry out the duties of the continued airworthiness management organisation. This has already been done extremely successfully in the UK by single organisations such as the 'M3'. Here the M3 recommends the issue of the CofA and then has the ability to extend it annually for two years, with the CofA renewal taking the form of a Star Annual on the third year. The essence of the Star Annual is an Airworthiness Review. There is no economic justification for the need for both Subpart F and Subpart G organisations, both needing separate Expositions, separate Staff, separate Premises, etc etc etc. All this adds to cost and has no benefit to improved safety, certainly as has been demonstrated for many years in the UK. The imposition of this system will add so much to bureaucracy and therefore costs that it will run counter to the best interests of safety. Part M must therefore be amended to allow the Subpart F to fulfill the role of Subpart G also, all under a single approval, a single Exposition and, most importantly, a single fee. Additionally, it will be important that the quality system requirements are in keeping with the needs of the simplified organisation and the use of an organisational review should be permitted.

**Action Required.** Accordingly, the following new subpara (g) should be added to MA 712:

*(g) By derogation, for aircraft complying with Part 21, 21A.14(b) and 21A.14(c) (ELA 1 and ELA 2) and not involved in commercial air transport, the*





## Reason Text

These combined measures are wholly disproportionate to the real needs of sport/GA operations particularly if, as is expressed intention of the EASA Rulemaking Director, sporting bodies should be enabled to take on these roles. In the view of the BGA an appropriate sub-set of these requirements would be:

- Complete relaxation of requirement for 'Independent Review Staff'
- Application of internal review process only for sporting bodies and associations acting as CAMOs.
- Continuing reliance on NAAs for the quality audit function.

NB: This comment is directed at the details of the currently drafted regulation. It should be considered alongside the BGA's general comment concerning the CAMO's remit

response *Not accepted*

There is no obligation to have separate airworthiness review staff. In the particular case of a small CAMO, persons already employed and with overall authority can be nominated as airworthiness review staff.

In addition, continuing airworthiness management tasks are as important as maintenance tasks, because if not performed properly you face the risk of not performing all the required maintenance.

Refer also to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment 283

comment by: *John DAVIES*

This could mean two parallel quality systems for interchangeable components?

response *Noted*

The comment is not understood.

comment 297

comment by: *ICAA*

The last sentence needs clarification. At the moment this can be misunderstood.

response *Accepted*

M.A.712(f) has been modified accordingly.

comment 345

comment by: *Swedish Civil Aviation Authority (Luftfartsstyrelsen)*

M.A. 712(f)

The last sentence needs clarification. At the moment this can be misunderstood.

response	<p><i>Accepted</i></p> <p>M.A.712(f) has been modified accordingly.</p>
comment	<p>355 <span style="float: right;">comment by: <i>FFVV</i></span></p> <p>On behalf of FFVV French Gliding Union</p> <p>Impose an organisational review instead of a quality system is not a real improvement - No quality system, nor organisational review have been imposed till now in the French agreement for maintenance workshop ( very close to F+G agreement), then FFVV considers that audits conducted by the competent authority( as yet practice yearly) is sufficient and should be an alternative to any organisational review.</p> <p>Jean Pierre De loof Chairman of airworthiness committee</p>
response	<p><i>Not accepted</i></p> <p>Refer to the different explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.</p>
comment	<p>369 <span style="float: right;">comment by: <i>UK CAA</i></span></p> <p>PARAGRAPH: M.A.712 (f)</p> <p>COMMENT:</p> <p>Contracting of continuing airworthiness tasks by a Part M subpart G is not currently permitted within the regulation.</p> <p>JUSTIFICATION:</p> <p>A change of text to reflect accurately the contents of AMC.201 (h) 2.</p> <p>PROPOSED TEXT:</p> <p>"Sub-contracting continuing airworthiness tasks is not permitted without a Quality System".</p>
response	<p><i>Accepted</i></p> <p>M.A.712(f) has been modified accordingly.</p>
comment	<p>434 <span style="float: right;">comment by: <i>IAOPA Europe</i></span></p> <p>MA 712 - Quality System.</p> <p>As explained in previous comments, the whole ethos of Part M is wholly inappropriate for the needs of light GA and gliders (eventually ELA) etc. Here, a single organisation is needed which can both, carry out the aircraft maintenance tasks, but also carry out the duties of the continued airworthiness management organisation. This has already been done extremely successfully in Germany by single organisations such as the LBA or assessment bodies as DULV or DAeC. There is no economic justification for the need for both Subpart F and Subpart G organisations, both needing separate Expositions, separate Staff, separate Premises, etc. All this adds to cost and has no benefit to improved safety, certainly as has been demonstrated for many years in Germany and other countries. The imposition of this system will add so much</p>

to bureaucracy and therefore costs that it will run counter to the best interests of safety. Part M must therefore be amended to allow the Subpart F to fulfil the role of Subpart G also, all under a single approval, a single Exposition and, most importantly, a single fee.

Additionally, it will be important that the quality system requirements are in keeping with the needs of the simplified organisation and the use of an organisational review should be permitted.

Accordingly, the following new sub-para (g) should be added to MA 712:

**(g) By derogation, for aircraft complying with Part 21, 21A.14 (b) and 21A.14(c) (ELA1 and ELA 2) and not involved in commercial air transport, the quality system in a Part M Subpart F organisation granted the privilege to carry out an airworthiness review and issue or extend airworthiness review certificates may be replaced with an organisational review on a regular basis.**

response *Partially accepted*

Part-M, Subpart F contains the requirements necessary to obtain an approval as a maintenance organisation. These requirements do not cover the continuing airworthiness management of aircraft.

Nevertheless, nothing prevents a Subpart F organisation to apply for a Subpart G approval (CAMO) so they can perform airworthiness managements tasks, airworthiness reviews, issuance of airworthiness review certificates, approval of maintenance programmes, etc.

Amendments have been introduced to the following paragraphs in order to facilitate the double approval (single application format, single exposition, common audits):

AMC M.A.602, AMC M.A.702, AMC M.A.704, AMC M.B.604(b) and AMC M.B.704(b).

Refer also to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment *481*

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

The replacement of a quality system by organisational reviews is no real improvement. The scope of organisational reviews as defined in Appendix XII is very close to the scope of audits performed by the competent authority. DAeC therefore suggests to drop quality systems or organisational reviews as long as no ARC is issued for aircraft above 2730 kg and just to perform external audits.

response *Partially accepted*

Appendix XII has been simplified.

However, it is not acceptable not to perform organisational reviews and not to have a Quality System.

Performance only of external audits do not guarantee follow-up of finding and implementation of corrective actions.

comment	<p>506</p> <p>comment by: <i>European Gliding Union (EGU)</i></p> <p>The replacement of a quality system by organisational reviews is no real improvement. The scope of organisational reviews as defined in Appendix XII is very close to the scope of audits performed by the competent authority. EGU therefore suggests to drop quality systems or organisational reviews as long as no ARC is issued for aircraft above 2730 kg and just having external audits.</p> <p>The requirement to have a quality system in place is a burden for the Maintenance and CAMO organisations of sports clubs due to the fact, that they may have a lot of staff at place but this staff is only part time. So it would be beneficial to have the regulation amended in a way that the staff counted is only full time staff and part time staff can be recal-culated to prove that only an equivalent to 5 staff is employed (where most of the club organisations are far away from).</p>
response	<p><i>Partially accepted</i></p> <p>AMC M.A.712(f) has been modified to consider the case of part-time personnel. In addition, Appendix XII has been simplified.</p>

comment	<p>594</p> <p>comment by: <i>DULV</i></p> <p>MA 712 - Quality System.</p> <p>As explained in previous comments, the whole ethos of Part M is wholly inappropriate for the needs of light GA and gliders (eventually ELA) etc. Here, a single organisation is needed which can both, carry out the aircraft maintenance tasks, but also carry out the duties of the continued airworthiness management organisation. This has already been done extremely successfully in Germany by single organisations such as the LBA or assessment bodies as DULV or DAeC. There is no economic justification for the need for both Subpart F and Subpart G organisations, both needing separate Expositions, separate Staff, separate Premises, etc. All this adds to cost and has no benefit to improved safety, certainly as has been demonstrated for many years in Germany and other countries. The imposition of this system will add so much to bureaucracy and therefore costs that it will run counter to the best interests of safety. Part M must therefore be amended to allow the Subpart F to fulfil the role of Subpart G also, all under a single approval, a single Exposition and, most importantly, a single fee.</p> <p>Additionally, it will be important that the quality system requirements are in keeping with the needs of the simplified organisation and the use of an organisational review should be permitted.</p> <p>Accordingly, the following new sub-para (g) should be added to MA 712:</p> <p><b><i>(g) By derogation, for aircraft complying with Part 21, 21A.14 (b) and 21A.14(c) (ELA1 and ELA 2) and not involved in commercial air transport, the quality system in a Part M Subpart F organisation granted the privilege to carry out an airworthiness review and issue or extend airworthiness review certificates may be replaced with an organisational review on a regular basis.</i></b></p>
response	<p><i>Partially accepted</i></p>

Part-M, Subpart F contains the requirements necessary to obtain an approval as a maintenance organisation. These requirements do not cover the continuing airworthiness management of aircraft.

Nevertheless, nothing prevents a Subpart F organisation to apply for a Subpart G approval (CAMO) so they can perform airworthiness management's tasks, airworthiness reviews, issuance of airworthiness review certificates, approval of maintenance programmes, etc.

Amendments have been introduced to the following paragraphs in order to facilitate the double approval (single application format, single exposition, common audits):

AMC M.A.602, AMC M.A.702, AMC M.A.704, AMC M.B.604(b) and AMC M.B.704(b).

Refer also to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment 645

comment by: *Fédération Française Aéronautique*

AFFECTED PARAGRAPH:  
M.A 712 (f)

PROPOSED TEXT/ COMMENT:

We approve (page 111/144) the first sentence : "*In case of a small M.A Subpart G organization not involved in commercial air transport .....*"

But the second sentence "*Contracting continuing airworthiness management tasks is not permitted without a Quality System*" is too short and too limitative for a NAA which would apply it to the letter. It is necessary to explain clearly in an AMC 712 (f) what means "*continuing airworthiness management tasks*". In our mind it cannot concern tasks which is there no responsibility transfer from the CAMO in charge to another CAMO.

2 examples to illustrate our propos:

1. Maintenance Programme: the rule cannot forbid a CAMO in charge to entrust a full Maintenance Programme project writing to another specialized CAMO as much as the CAMO in charge check all contents of this project before it affixes his signature.

Continuing airworthiness management computer tool: there is a probability that, to reduce costs and improve the effectiveness, some small organisations federate to quickly make a common data-processing tool lodged in a decentralized computer server. In the first time this decentralized computer would have only the mission to deal only with exclusively and separately data send by each organisation.

It would not be responsible not to allow that at term this specialized software cannot find a natural development.

They can imagine, for instance, that it will be able to redistribute automatically data received from various purveyors (EASA, NAA, TC holders, etc.). Besides evident costs reduction, replacing the classic postal mail with its delays of distribution and its defects of transmission, they would obtain more liability and fastness what goes to safety.

Some computerized data are already available : In France the GSAC send monthly a data CDROM (FAST) to their subscribers organisations; some TC holders (ex TCM) offer an Internet site for their customer to allow them to recover technical data, avoiding so the more bulky, less dependable and more expensive paper copies.

response *Noted*

Please refer to amendment introduced in AMC M.A.712(f) in order to clarify what activities are not considered sub-contracting and can be performed without a Quality System.

comment

670

comment by: *CAA Finland, Communications*

**M.A.712(f)**

The last sentence needs clarification. At the moment this can be misunderstood.

response

*Accepted*

See new text in the consolidated version at the end of this CRD.

comment

681

comment by: *Royal Swedish Aero Club*

Overview/Audit of processes within the CAMO concept remains unnecessarily burdensome for airworthiness of sport/General aviation. As drafted in NPA2007/08 an already approved CAMO operates with the following constraints:

- The requirement for independent Airworthiness review staff (MA707) increasing the staffing requirements on all but the 'one-man CAMO'. This makes smaller (but greater than one man) organisation overburdened with meaningless segregation of role to the extent that additional staff will be required.
- An externally executed Quality Audit, or internal review (MA712) to be carried out at stipulated intervals.
- The continuing obligation of an NAA to make external audits to its satisfaction at any time at the CAMO's expense.

All of these measures are applied to what is essentially an office based bureaucratic function, not even actually engaged in work on airframes.

**Justification**

These combined measures are wholly disproportionate to for sport/GA operations particularly if, as is the expressed intention of the EASA Rulemaking Director, sporting bodies should be enabled to take on these roles. In his view of this sporting association, an appropriate sub-set of these requirements

would be:

- Complete relaxation of requirement for 'Independent Review Staff'
- Application of internal review process only for sporting bodies and associations acting as CAMO's.
- Continuing reliance on NAA's for the quality audit function.

response

*Not accepted*

There is no obligation to have separate airworthiness review staff. In the particular case of a small CAMO, persons already employed and with overall authority can be nominated as airworthiness review staff.

In addition, continuing airworthiness management tasks are as important as maintenance tasks, because if not performed properly you face the risk of not performing all the required maintenance.

Refer also to the explanations provided in Attachment 1 to the CRD in paragraph GENERAL ISSUES.

**B. Draft Rules - II. Draft Opinion (EC) No 2042/2003 - M.A.803 Pilot-owner authorisation**

p. 53-54

comment

72

comment by: *Sat-Heli*

(iii) Please keep this proposition in the future , that' a great evolution for the aerial work world where pilots are commonly much more competent for daily maintenance than the legal owner.

response

*Not accepted*

According to M.A.201 (i), the operator has to contract a Part M subpart F organisation and therefore the concept of Pilot owner maintenance does not apply.

comment

93

comment by: *DGAC France*

According the Chicago Convention, pilot license has to be issued or validated by the Member State of Registry.

We thus propose to modify M.A.803(a) as follows :

"(a) The pilot-owner is the person who owns or jointly owns the aircraft being maintained and holds a valid pilot license issued or validated by ~~a-the~~ Member State **of Registry** for the aircraft type or class rating"

response

*Not accepted*

According to EC directive 91/670/EEC of 16 december 1991, Article 3 states that: QUOTE Any person holding a private pilot's licence issued by a Member State shall be permitted to fly aircraft registered in another Member State UNQUOTE

comment *141* comment by: *George Knight*

M.A. 803 Pilot-owner authorisation

As a glider pilot in the UK this rule seems to inadvertently prohibit me from performing maintenance and and/or issuing a certificate of release to service because glider pilots in the UK do not, as a matter of course, hold pilots licences and therefore do not have a pilot's licence number.

It is suggested that **everywhere in this consultation** that there is a requirement for a person to be a holder of a pilot's licence that this be extended to include, for glider types Sailplane (SP) and Self Sustained Powered Sailplane (SSPS) the holding of an equivalent qualification such as a FAI Gliding Certificate and that the Gliding Certificate number be used instead of the Pilot's Licence number. This extension could be restricted to SP and SSPS types registered in the United Kingdom only.

response *Accepted*

The word "equivalent" has been added to M.A.803 and AMC M.A.803 gives further explanation.

comment *149* comment by: *John Tempest*

MA803 (a) 1(i)

Propose delete words 'on the registration form'

It is normal for an aircraft to be owned by a group of persons, who will nominate one individual to be placed on the registration form. This individual will receive all correspondence from the NAA/EASA.

All other group members should be eligible to conduct pilot owner maintenance provided that their competence is accepted by the CAMO.

Similarly, para MA803 2(ii) should be edited to remove the word 'registered'.

response *Not accepted*

1) The registration form is the only legal document proving the ownership.

There should exist a clear distinction between legal and operational aspects between the owners.

2) Pilot members of a group declared as owner or jointly owner of the aircraft may carry out pilot-owner maintenance if designated by the legal entity or the jointly owners.

3) Once the CAMO has a contract with the owner in accordance to Appendix I of Part M, the CAMO has to accept the extent of pilot-owner maintenance carried out as defined in the maintenance program.

It is the responsibility of the pilot-owner to assess his competency himself.



comment	<p>184 <span style="float: right;">comment by: Ludwig Hessler</span></p> <p>In the sentence</p> <p>"(iii) where the joint owner is a <del>limited liability</del> company or a legal entity, by a pilot who is a <del>member of</del> employed/flying for and designated by that company or legal entity."</p> <p>JUSTIFICATION: the term "limited liability" should be deleted as it is only one of many possible forms of economical associations within the EU.</p> <p>Also the term "member" should be avoided as it leaves the acceptance of freelance pilots open. It should be sufficient to have a pilot mentioned in the operator's documentation and have him designated as described above.</p>
response	<p><i>Partially accepted</i></p> <p>1) The term "limited liability company" has been taken out because a legal entity contains it. M.A803 and its AMC have been improved to better mirror accordingly.</p> <p>2) The Agency rejected to replace "member of" by "employed/flying" because pilot-owner maintenance is limited to pilot and owner of the aircraft; being employed by a legal entity does not mean you own the aircraft or you have a valid pilot licence.</p>
comment	<p>211 <span style="float: right;">comment by: BPvL e. V.</span></p> <p>2. Pilot owner maintenance shall be performed by:</p> <p>Add a new point (iv): this person should be the person who will do the first flight after pilot owned maintenance.</p> <p style="text-align: center;">-----</p> <p>If the person who performed the maintenance does not do the first flight, his status is the same as a mechanic in a certified organisation.</p>
response	<p><i>Noted</i></p> <p>This comment is in line with the concept of pilot-owner maintenance: the pilot-owner that carried out some maintenance tasks might be the one who performs the first flight after the performance of the tasks. In the case of jointly owned aircraft, the Agency can not write that the one who performed the maintenance tasks must perform the first flight.</p>
comment	<p>273 <span style="float: right;">comment by: Walter Gessky</span></p> <p>M.A.803(a)(2) (i), (ii) and (iii) Change the text:</p> <p>(i) the pilot owner <b>with a minimum age of 18</b></p> <p>(ii) in the case of joint ownership, the pilot owners <b>with a minimum</b></p>

**age of 18 years** designated by the registered owners of the aircraft being maintained or

(iii) where the joint owner is a limited liability company or a legal entity, by a pilot **with a minimum age of 18 years** who is a member of, and designated by, that company or legal entity.

Justification:

To comply with ICAO Annex 1 requirements concerning age limit of maintenance personnel, the person carrying out limited pilot owner maintenance tasks should not be less than 18 years old.

response *Not accepted*

§4.2.1.1 of ICAO annex 1 refers to the maintenance licence although the pilot owner maintenance concept is based on the pilot licence. It is also limited to aircraft below 2730kgs.

The pilot licence remains a pilot licence and does not become a maintenance licence. The pilot licence just gives privileges to the pilot to carry out limited maintenance tasks on the aircraft that he owns; a maintenance licence may give privileges on any other aircraft of the same category.

comment

336

comment by: *Roderick Weaver*

There is no need to be so heavy handed with regard to the installation of or maintenance of additional components in light aviation/gliding. There is no evidence provided which supports the view that this will add anything to safety, all it will achieve is further cost.

response

*Not accepted*

Although some non-required instruments/equipment may qualify as "standard parts" (see Decision ED 2006/13/R) not requiring a Form 1, there is still a need for an installation approval because these instruments may interfere with other instruments, share the electrical installations, or may affect the weight & balance of the aircraft.

comment

404

comment by: *CAA CZ*

Paragraph M.A.801 (b) still includes requirement that allows possibility to issue CRS (when satisfied that all maintenance required has been properly carried out) by appropriate Part-66 certifying staff (except for complex maintenance tasks) or by pilot-owner. We expect that such reduction of the requirements (maintenance carrying out by the pilot-owner) could endanger the safety of operation. From proposed amendment it is not also clear who will issue the CRS for aircraft maintained by pilot-owner when part of the maintenance tasks will be carried out by maintenance organisation. We don't recommend to implement such rule generally. CAA CZ recommends considering provision of maintenance by approved maintenance organisation and in case of non-complex aircraft at least by qualified maintenance staff.

response

*Not accepted*

1) The Term of reference of M-005 was not to challenge the existence of the pilot owner maintenance in accordance with Part M Appendix VIII but to

improve it.

2) The tasks performed by the pilot-owner shall be certified by the pilot-owner. The maintenance organisation will only certify the maintenance tasks performed by its personnel when part of the maintenance tasks will be carried out by this maintenance organisation.

comment

407

comment by: CAA-NL, SCI

M.A.803d) Add full pilot signature (analogue to Part-145)

response

*Accepted*

M.A.803 (d) has been modified accordingly.

comment

430

comment by: Ludwig Hessler

Comment:

Here we find difficulties regarding the missing definition under M.A.201 regarding "pilot-owners". The § should bear the title "operator authorisation".

The definition of the "pilot-owner" from a German aviation law perspective is that the owner and the operator fall into the same category, and at the same time must possess a valid pilot's license for the aircraft. This creates an undue restriction for persons intending to carry out maintenance and differs vastly from the present real world scenario.

In flying clubs, which for the most part are affected, the workshop supervisor would not even be able to carry out maintenance on one of the clubs' gliders, if no longer actively flying. These types of aircraft are almost flown exclusively by students, instructors and occasionally other pilots taking visitors on introduction flights.

The fact shouldn't be forgotten, that there are many workshop supervisors out there, who have lost their medical certificates due to health reasons, and can no longer fly as pilot in command. According to JAR-FCL for example glider pilot licenses are issued for life, but the privileges may only be exercised under certain conditions. Even with a valid medical, PIC privileges may not necessarily be made use of (i.e. insufficient takeoffs and flight time).

So we ask, what does valid really mean?

Take a father and son flying a two seat glider for example. The father who has lost his PIC privileges, may however fly together with his son. May the father then perform any type of maintenance tasks, or not? Is only the son allowed to sign a release to service? Just because the father lost his PIC privileges, he would not have necessarily lost his years of knowledge and experience in performing maintenance tasks. This is a very common situation!

We find it absurd to demand a valid pilot license in such cases, when it is not required for certifying staff in accordance with Part-66.

The bottom line: The privilege of carrying out pilot-owner maintenance should in no way be tied to a valid pilot license requirement. Section a) must be

revised:

If the term pilot-owner is to be kept, one could think of the following definitions:

The pilot-owner is the person who owns the aircraft and also the sole operator, or

In case of shared ownership, the pilot-owner is any person, who has been determined to carry out maintenance by the operator.

A pilot-owner can be any person who possesses or has possessed a pilot license, issued or recognised by a member state, and it is or was valid for the particular aircraft or contains or contained the appropriate class privilege.

Point 2 must further contain an additional segment (iv), which deals with the interests of the general aviation sports community:

**(iv) in the case of flying clubs, any person designated by the club, who is a member of the club.**

Looking upon forthcoming AMC's, the new AMC's for this § state, that the list of persons designated for pilot-owner maintenance, must be listed in the maintenance programme. This means the competent authority would be obligated to approve such lists, which would create an immense and superfluous bureaucratic burden. One would have to check and approve every maintenance programme, every time even the slightest change in the list occurred.

For this reason the proper wording should be chosen, to ensure this list remains an annex to the maintenance programme, **not** requiring formal approval.

**The operator is obliged to maintain a list of persons, designated to carry out pilot-owner maintenance. This list is an annex to the maintenance programme and requires no formal approval.**

The addition under d) is ok.

response *Partially accepted*

1) Pilot or operator versus owner

The concept of pilot-owner maintenance only applies for being both pilot and owner at the same time.

Refer to the legal definition that has been given in M.A.803 of that NPA.

Refer also to comment n°19

Rejected

2) Pilot licence that is not valid anymore

It is clearly against the basic principles of pilot owner maintenance to permit a

person who does not hold a valid pilot licence to perform maintenance task.

In this case, this experience may not be lost because the Agency is in the process of exploring in the near future the possibility to have a light maintenance licence for the lighter end of general aviation. ("B3" licence for general aviation except for helicopter - an NPA will be issue in a near future)

Refer also to comment n° 563

Accepted

3) AMC M.A.803 (c) &3 has been modified for better provisions about the management of the persons autorised to perform the POM in the maintenance program:

An alternative would be the maintenance program to contain a procedure to ensure how such a list of competent pilots should be managed separately and kept current.

comment 513

comment by: *European Gliding Union (EGU)*

Some Member States issue licences which are lifelong valid, but the person holding the licence is entitled to exercise its privileges only, if the pilot holds a valid medical and the flight experience is current. EGU requests to clarify that even in those cases where the person lost its privileges the person is still allowed to carry out pilot-owner maintenance.

This proposal is based on proven experience in flying clubs. Pilots loosing there medical fitness do usually not loose there skills towards maintenance. Allowing such persons still to carry out pilot-owner maintenance allows them to remain as a valuable member of the social community flying club without any negative impact on airworthi-ness of the aircraft maintained.

response *Not accepted*

Permitting a person who does not hold a valid pilot licence to perform maintenance task is clearly against the basic principles of pilot owner maintenance.

The concept is also based on the fact that the pilot-owner may be the one who is going to fly the aircraft just after the maintenance tasks have been carried out.

In this case, this experience may not be lost because the Agency is in the process of exploring in the near future the possibility to have a light maintenance licence for the lighter end of general aviation.

comment 539

comment by: *Marie THERY*

In M.A.803(a)(2)(iii) it is not always clear what is meant by "a pilot who is a member of that company or legal entity".

1. In the case of a limited liability company, is a "member":

- an employee of the company, and/or
- an owner of the company?

2. The proposed wording, on the contrary, clear seems to imply that a pilot

who is a member of a French aeroclub (association loi 1901) can be considered as a pilot owner as soon as:

- the aeroclub is the registered owner (listed on the certificate of registration)
- it has been designated by the aeroclub

Is this interpretation correct?

response *Partially accepted*

1. An employee of any entity (irrespective of its legal status) holding a valid pilot licence who is not owner or joint owner of that company cannot carry out Pilot-Owner Maintenance.

Further clarifications have been added in M.A.803 and its AMC.

2. The interpretation is correct.

comment

545

comment by: *Graham Lambert*

There is no apparent provision for gliders that are lent or borrowed. Gliders are often lent for competitions or for excursions to foreign (not local) airfields. This is a special situation which seems not to have been addressed. The situation is allowed for by insurance companies, whereby a pilot with sufficient experience (e.g. full instructor and 500 hours) and with the permission of the owner, will be insured to fly a glider. Such a pilot would often have the skills to execute pilot-owner maintenance.

response

*Noted*

The concept of pilot-owner maintenance only applies for being both pilot and owner at the same time.

It is not the intention of POM to address the issue of leasing (renting) unless there is a contract in accordance to in M.A.201(b).

For that reason, the term "**pilot-owner**" will be further used and the NPA has been corrected accordingly.

comment

634

comment by: *DTruempi*

para (a):

Maintenance work on gliders can be execute by each person, who has the experience and knowledge for such a task. It is not necessary to hold a pilot licence nor to be the owner of a glider.

In many aeroclubs maintenance work on gliders is done by elder members who are no more active pilots. Why EASA will exclude this persons from active club life? Often this peoples are retired aeronautical staff like pilots ore mechanists.

response

*Not accepted*

It is clearly against the basic principles of pilot owner maintenance to permit a person who does not hold a valid pilot licence to perform maintenance task.

The concept is also based on the fact the pilot-owner may be the one who is going to fly the aircraft just after maintenance task have been carried out.

In this case, this experience may not be lost because the Agency is in the process of exploring in the near future the possibility to have a light

maintenance licence for the lighter end of general aviation.

**B. Draft Rules - II. Draft Opinion (EC) No 2042/2003 - M.A.901 Aircraft  
airworthiness review**

p. 54-56

comment	<p>13 <span style="float: right;">comment by: <i>SAMA Swiss Aircraft Maintenance Association</i></span></p> <p>M.A.901(a), proposed addition: .. "For aircraft of 2730 Kg MTOM and below, that are not used in commercial air transport, the validity is two years."</p> <p>Justification: For decades, the airworthiness review interval for GA aircraft in Switzerland has been two years, in some cases longer. There is no evidence that an interval of two years instead of one might present a safety risk in this category, or that a one year interval increases safety.</p>
response	<p><i>Not accepted</i></p> <p>An ARC is issued for a period of 1 year.</p> <p>However, alleviations have been proposed for aircraft not used in commercial air transport, to allow the CAMO managing the aircraft to extend twice the validity of an ARC issued by another CAMO or by the authority when the aircraft is in a controlled environment.</p> <p>See in the consolidated version at the end of this CRD the new text in M.A.901(e).</p>
comment	<p>35 <span style="float: right;">comment by: <i>Austro Control GmbH</i></span></p> <p>Proposed Text:</p> <p>M.A.901 (e)</p> <p>2. for all aircraft whenever it is requested by the owner.</p> <p>Justification:</p> <p>The concept to give the operator the choice to select by whom the airworthiness review is performed (CAMO or NAA) should be applied without take-off weight and/or kind of operations limitations.</p> <p>If a competent authority is capable to make airworthiness reviews it should be capable for the whole fleet of registered aircraft. It is additionally a question of competence and training. An airworthiness review is practical experience for all authority tasks as ramp checks, fleet survey audits, product audits on each kind of organisational approval.</p> <p>These airworthiness reviews can be used for data collection in the fleet survey program and further on in a future safety management system.</p> <p>In a small organisation, it makes economically sense to perform airworthiness reviews to keep the staff current for other Part M tasks (maintenance programme approvals, ACAM, product audits, ...).</p>
response	<p><i>Not accepted</i></p> <p>This provision has been introduced for aircraft equal or below 2730 Kg MTOM because there may not be enough CAMOs at the expense to create some resources problems to some NAAs.</p> <p>These problems would be much higher if all aircraft were subject to the same provision.</p>

comment	<p>75 <span style="float: right;">comment by: <i>Sat-Heli</i></span></p> <p>MA 901 (e) 2 there is an unfair condition for CAMO's which are supervised by their NAA's and , in this case, should be competitor with this NAA.</p> <p>The NAA must be a regulator not judge and third part.</p> <p>MA 901(e) is right and enough to cover specious cases.</p>
response	<p><i>Not accepted</i></p> <p>The intention of the proposal is to provide flexibility to the owner to decide whether he prefers to go to a CAMO or to the authority, mainly because in some cases it may be difficult to find a CAMO.</p> <p>However, the same that someone can say that the authority may make difficult to a company to get an approval (because the authority may want to retain the business), another person may say that the authority may make it really easy (because the authority may not want to cope with airworthiness reviews or because they don't want to have additional personnel to do it).</p>
comment	<p>110 <span style="float: right;">comment by: <i>Ludwig Hessler</i></span></p> <p><b><u>PROPOSED TEXT:</u></b>  ... aircraft used <del>in commercial air transport and</del> by an owner which holds an AOC in accordance with M.A.201 (g) to (i) or aircraft above 2730 kg MTOM,</p> <p><b>JUSTIFICATION:</b>  Use the wording, because <b>all</b> aircraft used by an organisation which holds an AOC should be treated under the conditions conditions mentioned in (c).</p>
response	<p><i>Not accepted</i></p> <p>Refer to reply to comment 101.</p>
comment	<p>131 <span style="float: right;">comment by: <i>DGAC France</i></span></p> <p>1) <u>ARC extension</u></p> <p>Today there are about 400 maintenance organisations approved in France for General Aviation.</p> <p>3 900 general aviation aircraft are under contract to be managed and maintained by those organisations. Under the existing national system, such controlled environment leads to airworthiness reviews performed by the French authority every three years (which means 1 300 airworthiness reviews each year).</p> <p>In addition the 2 500 general aviation aircraft which are outside such controlled environment are subject to a 6 month or yearly airworthiness reviews. This is representing roughly 2900 reviews on a year for aircraft that are not in a controlled environment.</p> <p>Therefore, under the existing national system, the French Authority is performing about 4200 airworthiness reviews each year.</p> <p>The transfer of airworthiness reviews to approved organisations has obviously</p>



a financial and human impact both for industry and for the Authority and we are both trying to anticipate the workload share of the new system, once Part M is in place. However, due to the fact that Part M is not yet finalised and faced with new legal responsibilities, a lot of organisations have not yet decided whether or not they will apply for a G approval and an Airworthiness review privilege. In addition a number of organisations which may apply for a G+I approval, tend to say that they will not apply for airworthiness reviews of aircraft they do not manage.

This means that application for Subpart G approval may arrive late, that only a limited number may apply for the additional airworthiness review privilege, and that the process for granting such privilege (such as the requirement for an airworthiness review under control of M.A.707) could be incomplete before the deadline of 28 September 2008. This also means that most airworthiness reviews which are going to take place before 28.09.2008 will be done by the Authority.

As proposed, M.A.901 would imply that aircraft currently under a three years airworthiness review cycle would have, during a transition period, to go to a yearly airworthiness review cycle by the authority. The absurd consequence is that the French Authority would have to perform more airworthiness reviews than it is performing today, which, we believe is not at all the objective of the NPA.

We consider that a possible solution to keep a three year airworthiness cycle could be to give a Subpart G organisation the privilege to extend the ARC twice for aircraft it has under contract and which are continuously maintained by an approved organisation (even if the authority performed the ARC).

This would also permit newly registered aircraft (either because they are new or imported) to fall at once in a three year cycle, eventhough the airworthiness review at time of registration is done by the authority.

#### 2) Airworthiness reviews by the authority.

We accept the need for airworthiness review to be carried out either by an approved organisation or by the authority. However we consider that unacceptable the obligation for the Authority to carry out airworthiness reviews whenever requested to do so by an aircraft owner. The authority may not have the procedures/personnel available to carry out such reviews. In addition, even though we understand that such flexibility is needed we consider that competition between approved organisations and their competent authority may not be totally appropriate and that the Authority may decide to limit such competition to the minimum necessary and refuse to carry out such reviews if approved organisations can do it. In this sense we consider that a more neutral wording similar to that of Part 66A.45(h)(2) concerning type rating examinations would be much more appropriate.

#### 3) Potential safety threat

The change brought to M.A.901(e) is unacceptable by changing drastically its meaning and by putting legal uncertainty on national authorities. The initial purpose of this paragraph was, in a context where all airworthiness reviews were to be carried out by approved organisations, to allow the authority to do it in special circumstances (export of a new type of aircraft, review of an aircraft rebuilt after an accident, etc.). The proposal changes an option to an obligation in addition with doubt on who would decide that "circumstances show the existence of a potential safety threat" and that the authority must do the review. We believe that this part of the regulation may be deleted as through audits of organisations and fleet sample required by M.B.303 the authority should be able to have proper control on such specific cases.

We thus propose to modify M.A.901 as follows

*"M.A.901 Aircraft airworthiness review*

To ensure the validity of the aircraft airworthiness certificate an airworthiness review of the aircraft and its continuing airworthiness records must be carried out periodically.

(a) An airworthiness review certificate is issued in accordance with Appendix III (EASA Form 15a or 15b) on completion of a satisfactory airworthiness review and is valid one year.

(b) Aircraft used in commercial air transport and aircraft above 2730 kg MTOM are considered to be in a controlled environment when they have been continuously managed by an M.A. Subpart G approved continuing airworthiness management organisation, have not changed organisations in the previous 12 months, and are maintained by approved maintenance organisations.

In such cases, the continuing airworthiness management organisation managing the aircraft may if appropriately approved:

1. issue the airworthiness review certificate in accordance with M.A.710, and;  
2. for airworthiness review certificates it has issued, **or initially issued by the competent authority**, when the aircraft has remained within a controlled environment, extend twice the validity of the airworthiness review certificate for a period of one year each time. An airworthiness review certificate shall not be extended if the organisation is aware or has reason to believe that the aircraft is no airworthy.

(c) **For** aircraft used in commercial air transport and aircraft above 2730 kg MTOM, which are not within a controlled environment, or managed by an M.A. Subpart G approved continuing airworthiness management organisation that does not hold the privilege to carry out airworthiness reviews, the airworthiness review certificate shall be issued by the competent authority following a satisfactory assessment based on a recommendation made by an appropriately approved continuing airworthiness management organisation sent together with the application from the owner or operator. This recommendation shall be based on an airworthiness review carried out in accordance with M.A.710.

(d) For aircraft of 2730 Kg MTOM and below, that are not used in commercial air transport, **the airworthiness review shall be carried out and the airworthiness review certificate issued by an any approved continuing airworthiness management organisation appointed by the owner may if appropriately approved with appropriate privilege or by the competent authority.**

~~1. issue the airworthiness review certificate in accordance with M.A.710~~

~~(e)2-~~ **For aircraft of 2730 Kg MTOM and below, that are not used in commercial air transport, an approved continuing airworthiness management organisation may extend them** twice for a period of one year each time **the airworthiness review certificate** when the aircraft has remained, **since the airworthiness review certificate was issued**, in a controlled environment as defined by the following conditions :

~~1a.~~ the aircraft has remained managed by this continuing airworthiness management organisation ~~since it issued the airworthiness review certificate~~, and

~~2b.~~ the aircraft has been maintained by approved maintenance organisations ~~since this continuing airworthiness management organisation issued~~

~~the airworthiness review certificate. This includes M.A.803(b) maintenance carried out and released to service according to M.A.801(b)2 or M.A.801(b)3.~~

~~An airworthiness review certificate shall not be extended if the organisation is aware or has reason to believe that the aircraft is not airworthy.~~

~~(e) The competent authority shall carry out the airworthiness review and issue the airworthiness review certificate itself in the following cases:~~

~~1. whenever circumstances show the existence of a potential safety threat, or  
2. for aircraft of 2730 Kg MTOM and below, that are not used in commercial air transport, whenever it is requested by the owner.~~

~~(f) When the competent authority carries out the airworthiness review and /or issues the airworthiness review certificate itself, the owner or operator shall provide the competent authority with:~~

- ~~▪ the documentation required by the competent authority,~~
- ~~▪ suitable accommodation at the appropriate location for its personnel, and~~
- ~~▪ when necessary the support of personnel appropriately qualified in accordance with Part-66.~~

response *Partially accepted*

1) Alleviations have been proposed for aircraft not used in commercial air transport, to allow the CAMO managing the aircraft to extend twice the validity of an ARC issued by another CAMO or by the authority when the aircraft is in a controlled environment (M.A.901(f) and M.A.711(a)4).

In addition, transition measures have been introduced in M.A.901(k) and the possibility has been given to the competent authority to perform airworthiness reviews for aircraft not involved in commercial air transport when they are managed by a CAMO located in a third country (M.A.901(i))

2) and 3) The initial intent of the NPA in M.A.901 was not to give to the NAAs and extra amount of work that would create difficulties of management, but mostly to give to the owner more flexibility on how the ARC could be issued and renewed.

Furthermore, the representative of DGAC-F in M.017 did not oppose to the measure, claiming that DGAC-F was ready to implement it.

comment *140*

comment by: *BCAA - DAE - Certification*

For aircraft of 2730 kg MTOM and below, that are not used in commercial air transport, any CAMO appropriately approved may perform an airworthiness review and issue the airworthiness review certificate without the need for having continuously managed the aircraft in the previous 12 months. What is the motivation for the removal of the 12 months period requirements for this category of aircraft ?

response *Noted*

The reason for giving the possibility to an owner of an aircraft equal or less than 2,73 T MTOM not operated in commercial air transport, to go to an appropriately approved CAMO to have the airworthiness review carried out and the ARC issued and renewed without having been previously during 12 months

within this organisation, is to give to the owner the maximum of flexibility on how the management and review of the airworthiness of the aircraft may be carried out.

comment 176

comment by: *Swiss Federal Office of Civil Aviation (FOCA)*

This is a comment to section M.A.901 "Aircraft airworthiness review" letters a) and c) of the current version of Regulation 2042/2003:

The following modifications in section M.A.901 should be applicable for all aircraft below 2730 kg MTOW and aircraft lighter than air (balloons) used in non-commercial activities:

*"M.A.901 Aircraft airworthiness review*

*To ensure the validity of the aircraft airworthiness certificate an airworthiness review of the aircraft and its continuing airworthiness records must be carried out periodically.*

*(a) An airworthiness review certificate is issued in accordance with Appendix III (EASA Form 15a or 15b) on completion of a satisfactory airworthiness review and is valid **two years**.*

*(c) If an aircraft is within a controlled environment, the continuing airworthiness management organisation managing the aircraft may if appropriately approved:*

*1. issue the airworthiness review certificate in accordance with M.A.710, and;*

*3. for airworthiness review certificates it has issued, when the aircraft has remained within a controlled environment, extend twice the validity of the airworthiness review certificate for a period of **two years** each time. An airworthiness review certificate shall not be extended if the organisation is aware or has reason to believe that the aircraft is unairworthy."*

**JUSTIFICATION:**

Equity and fairness issues identified:

The current regulation seems to be unfair with the general aviation community because it is imposing the same requirements to all aircraft without considering the difference in complexity.

Issue which the comment is intended to address:

It is felt that the requirements for aircraft Airworthiness Review specified in M.A.901 are too stringent for light aircraft not used in commercial air transport (general aviation).

	<p>Impact on Safety</p> <p>No impact.</p>
	<p>Impact on Economic</p> <p>Very positive impact on the general aviation due to increased validity of the airworthiness review certificate resulting in a substantial decrease of the cost for all owners/operators.</p>
response	<p><i>Not accepted</i></p> <p>The Agency does not agree with the 2 year validity, without conditions, of the ARC. The current proposal already allows to perform airworthiness reviews every 3 years if the aircraft stays in a controlled environment (subject to two extensions).</p>

comment	<p>198 <span style="float: right;">comment by: <i>Bill Taylor</i></span></p> <p>MA 901 - Aircraft Airworthiness review. The proposed MA 901, subpara (e) 2. makes it a requirement for a competent authority the carry out the airworthiness review and issue the ARC for ALL aircraft below 2730 kg MTOM not used for commercial air transport. This is clearly WRONG.</p> <p><b><u>Action Required.</u></b> It is essential that the whole of MA 901, subpara (e) 2. be deleted.</p>
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response	<p><i>Not accepted</i></p> <p>Please note that the text in the NPA says in M.A.901(e) that the NAA shall carry out the airworthiness review when requested by the owner. Nevertheless, the text has been reworded to better explain it.</p>
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comment	<p>248 <span style="float: right;">comment by: <i>SFVS</i></span></p> <p>The ARC should be valid 24 month for non-complex aircraft below 1000 kg MTOM, not used in commercial Air Transport.</p>
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response	<p><i>Not accepted</i></p> <p>The Agency does not agree with the 2 year validity, without conditions, of the ARC. The current proposal already allows to perform airworthiness reviews every 3 years if the aircraft stays in a controlled environment (subject to two extensions).</p>
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comment	<p>261</p> <p style="text-align: right;">comment by: <i>René Meier</i></p> <p>AeCS proposes to change M.A.901(a): An airworthiness review certificate (ARC) is issued in accordance with appendix III (EASA) forms 15a or 15b on completion of a satisfactory airworthiness review and is valid for one year. For non-complex aircraft not used in Commercial Air Transport the ARC is valid for two years.</p>
response	<p><i>Not accepted</i></p> <p>The Agency does not agree with the 2 year validity, without conditions, of the ARC.</p> <p>The current proposal already allows to perform airworthiness reviews every 3 years if the aircraft stays in a controlled environment (subject to two extensions).</p>
comment	<p>271</p> <p style="text-align: right;">comment by: <i>DAeC LV NRW e.V.</i></p> <p>DAeC LV NRW e. V., as an approved CAMO welcomes the changes which will allow a CAMO to issue the ARC without the need to have the aircraft managed by the CAMO in the controlled environment and without the obligation for the maintenance performed only by approved maintenance organisations, however:</p> <p>It is understood that it is planned to authorise competent authorities (e.g. NAA, National Aviation Authority) to perform airworthiness reviews itself. This means that a competent authority is in competition with a CAMO which is dependant on the approval by that particular authority.</p> <p>Considering the difficult economic situation and prospects of the General Aviation in Europe the situation may come up that a competent authority makes it very difficult or extreme expensive for a CAMO to get the authorisation for airworthiness reviews and that finally only the competent authority is on the market. On the other hand it should be a common idea to reduce the burden of regulation and to strengthen the responsibility of the individual in Europe.</p> <p>There is no doubt that an authority is anytime free to scrutinize a CAMO and to join airworthiness reviews as a necessary qualification control or in case of safety problems.</p>
response	<p><i>Not accepted</i></p> <p>The intention of the proposal is to provide flexibility to the owner to decide whether he prefers to go to a CAMO or to the authority, mainly because in some cases it may be difficult to find a CAMO.</p> <p>However, the same that someone can say that the authority may make difficult to a company to get an approval (because the authority may want to retain the business), another person may say that the authority may make it really easy (because the authority may not want to cope with airworthiness reviews or because they don't want to have additional personnel to do it).</p>

comment	<p>274</p> <p style="text-align: right;">comment by: <i>Walter Gessky</i></p> <p><b>M.A.901(e)</b></p> <p>Change the text:</p> <p>(e) The competent authority shall carry out the airworthiness review and issue the airworthiness review certificate itself in the following cases:</p> <ol style="list-style-type: none"> <li>1. whenever circumstances show the existence of a potential safety threat, or</li> <li>2. for aircraft of <del>2730 Kg MTOM and below, that are not used in commercial air transport,</del> whenever it is requested by the owner.</li> </ol> <p>Justification: When changing the concept that the competent authority shall carry out on request by the owner the airworthiness review instead of a CAMO, than the limitation is not reasonable. The NAA should be entitled, when capable, to carry out all airworthiness reviews.</p> <p>This would be beneficial for small authorities because staff gains practical experience which could be essential for the other authority tasks like fleet survey, product audits, maintenance programme approval etc.</p>
response	<p><i>Not accepted</i></p> <p>This provision has been introduced for aircraft equal or below 2730 Kg MTOM because there may not be enough CAMOs at the expense to create some resources problems to some NAAs.</p> <p>These problems would be much higher if all aircraft were subject to the same provision.</p>
comment	<p>298</p> <p style="text-align: right;">comment by: <i>ICAA</i></p> <p>The text; "This includes M.A. 803(b) maintenance carried out and released to service according to M.A. 801(b)2 or M.A. 801(b)3" has to be rewritten.</p> <p>It is not clear, in order to be in a controlled environment, that the aircraft must be maintained by an approved maintenance organisation. It may be understood that it is sufficient with Part-66 and Pilot/owner limited maintenance only.</p> <p>If there will not be sufficient CAMO:s with the appropriate ratings prior to 28 September 2008, the competent authorities will encounter huge burdens in terms of man-hour, lack of airworthiness review staff etc.</p>
response	<p><i>Not accepted</i></p> <p>Please refer to replies to comments 346 and 347.</p>
comment	<p>341</p> <p style="text-align: right;">comment by: <i>Ludwig Hessler</i></p> <p>PROPOSED TEXT: (f)...</p>

- when necessary the support of independent personnel appropriately qualified in accordance with Part-66.

## JUSTIFICATION:

The word "independent" should be add, because for example a person which hold an Part-66 license and is in addition the owner of an aircraft may not be independent to conduct an airworthiness review on her/his own aircraft.

response *Not accepted*

The Part-66 personnel supporting the competent authority during an airworthiness review are not performing the airworthiness review but performing maintenance actions (opening panels, functional tests, etc) as directed by the airworthiness review staff of the competent authority.

Independence is not required because these Part-66 personnel will need to release any maintenance action that they perform.

comment 346 comment by: *Swedish Civil Aviation Authority (Luftfartsstyrelsen)*

M.A. 901(d)2.b

The text; "This includes M.A. 803(b) maintenance carried out and released to service according to M.A. 801(b)2 or M.A. 801(b)3" has to be rewritten.

It is not clear, in order to be in a controlled environment, that the aircraft must be maintained by an approved maintenance organisation. It may be understood that it is sufficient with Part-66 and Pilot/owner limited maintenance only.

response *Not accepted*

It is the subject of M.A.901(d) 2 b. statement to say that "the aircraft has been maintained by approved maintenance organisations since the CAMO issued the ARC". There is no doubt up to this stage. It adds that any maintenance carried out under pilot-owner authorisation (M.A.803(b)) is considered as being carried out by an approved AMO, whether it is released by certifying staff (M.A.801(b)2) or by the pilot-owner himself (M.A.801(b)3).

comment 347 comment by: *Swedish Civil Aviation Authority (Luftfartsstyrelsen)*

**M.A. 901(e) 2.**

If there will not be sufficient CAMO:s with the appropriate ratings prior to 28 September 2008, the competent authorities will encounter huge burdens in terms of man-hour, lack of airworthiness review staff etc.

response *Noted*

However, in many cases the NAAs are currently performing the airworthiness reviews under national rules.

comment 360 comment by: *FFVV*

MA 901



	<p>On behalf of FFVV</p> <p>As most of pilote owner and small clubs mantains there gliders out of controled environment, FFVV welcomes the changes which will allow a CAMO to issue the ARC without the need to have the aircraft managed by the CAMO and without the need for having maintenance performed at approved maintenance organisations only</p>
response	<i>Noted</i>
comment	<p>396 <span style="float: right;">comment by: <i>Barry Plumb</i></span></p> <p>The wording of MA901(e)2 as written indicates that the NAA shall carry out the airworthiness review and issue the ARC for aircraft below 2730 kg not used for commercial purposes. It is considered that this must be a mistake, as that is clearly not the intention of the regulation.</p>
response	<p><i>Not accepted</i></p> <p>Please note that the text in the NPA says in M.A.901(e) that the NAA shall carry out the airworthiness review when requested by the owner. Nevertheless, the text has been reworded to better explain it.</p>
comment	<p>399 <span style="float: right;">comment by: <i>CAA CZ</i></span></p> <p>According to amended paragraph M.A.901 (e) the competent authority shall carry out the airworthiness review and issue the airworthiness review certificate itself whenever it is requested by the owner (for aircraft of 2.730 kg MTOM and less, which are not used in commercial air transport). In our opinion the owners will prefer this option because the CAMO will carry out airworthiness review and issue the airworthiness review certificate on commercial basis while the CAA shall carry out this service only at administrative charge. As the complete airworthiness review will have to be carried out, this process will be time-consuming. CAA CZ will not have sufficient number of personnel for this process.</p>
response	<p><i>Noted</i></p> <p>It is not clear whether the owners would prefer the service of a CAMO or the NAA.</p> <p>Depending on the Member State, the service of the NAA may be cheaper or more expensive than the service of a CAMO. In addition, the service of the NAA may involve a longer delay.</p> <p>Also, the competent authority may contract the service of personnel to perform the airworthiness review on behalf of the competent authority as long as this personnel meet the qualification criteria and can show no conflict of interest with the aircraft / organisations reviewed.</p>
comment	<p>431 <span style="float: right;">comment by: <i>Ludwig Hessler</i></span></p> <p>Comment:</p> <p>A new version of this § is welcome, however additional confusion is also evident here regarding the responsibilities between owner and operator. As previously mentioned, a uniform definition regarding the operator is essential here. The commercial or non-commercial aspect is irrelevant here because the</p>

§ itself already deals with the two types of operations.

With sections e) and f) the operator now has the legal right to obtain airworthiness reviews and ARC issuance from the competent authority. The competent authorities must consequently make provisions for this and keep suitable people on hold. However, it may demand the operator provide the review staff. This is not feasible for several NAAs. We therefore recommend to stick with the old version of "may decide to" instead of "shall".

The reasoning for the above stems from the fact that according to the NPAs the operator may freely select and switch between CAMOs, since the requirements for a controlled environment have been removed.

response *Not accepted*

The word "may" would produce legal uncertainty.

In addition, a competent authority may contract the service of personnel to perform the airworthiness review on behalf of the competent authority, as long as this personnel meet the qualification criteria and can show that they do not have conflict of interest with the aircraft / organisation reviewed.

comment

435

comment by: *IAOPA Europe*

MA 901 - Aircraft Airworthiness review.

The proposed MA 901, sub-para (e) 2. makes it a requirement for a competent authority the carry out the airworthiness review and issue the ARC for ALL aircraft below 2730 kg MTOM not used for commercial air transport. This is clearly WRONG.

It is essential that the whole of MA 901, sub-para (e) 2. be deleted.

response

*Not accepted*

See reply to comment 527.

comment

527

comment by: *Armageddon Associates*

There appears to be an anomaly in that MA901(e) states that the NAA shall carry out the airworthiness review for aircraft of less than 2730 kg MTOM not used for commercial air transport. This appears to contradict M901(d) which states that a CAMO can carry out the Airworthiness Review and issue an ARC.

MA901(e) must be changed to permit review and issue of the ARC by the CAMO to remove this anomaly.

response

*Not accepted*

Please note that the text in the NPA says in M.A.901(e) that the NAA shall carry out the airworthiness review when requested by the owner. Nevertheless, the text has been reworded to better explain it.

comment

575

comment by: *Swedish Soaring Federation*

We welcomes the changes wich will allow a CAMO to issue the ARC.  
We have in Sweden a good experience of carry out airworthiness reviews/physical inspection every 36 month or more. So we suggest that the period of

	validity of an ARC should be 36 month.
response	<p><i>Not accepted</i></p> <p>The Agency does not agree with the 3 year validity, without conditions, of the ARC. The current proposal already allows to perform airworthiness reviews every 3 years if the aircraft stays in a controlled environment (subject to two extensions).</p>
comment	<p>579 <span style="float: right;">comment by: <i>Malta Department of Civil Aviation</i></span></p> <p>or longstanding recurring deficiencies in the airworthiness review process.</p>
response	<p><i>Noted</i></p> <p>The comment is not understood</p>
comment	<p>580 <span style="float: right;">comment by: <i>Malta Department of Civil Aviation</i></span></p> <p>adequate access to the aircraft</p>
response	<p><i>Noted</i></p> <p>The comment is not understood</p>
comment	<p>595 <span style="float: right;">comment by: <i>DULV</i></span></p> <p>MA 901 - Aircraft Airworthiness review.</p> <p>The proposed MA 901, sub-para (e) 2. makes it a requirement for a competent authority the carry out the airworthiness review and issue the ARC for ALL aircraft below 2730 kg MTOM not used for commercial air transport. This is clearly WRONG.</p> <p>It is essential that the whole of MA 901, sub-para (e) 2. be deleted.</p>
response	<p><i>Not accepted</i></p> <p>See reply to comment 527</p>
comment	<p>635 <span style="float: right;">comment by: <i>DTruempi</i></span></p> <p>para (a):</p> <p>For gliders it is not necessary to execute an airworthiness review all years! An review all two or even three years is adequate.</p> <p>In Switzerland between ca. 1990 and 2001 glieders are reviewed all 3y, since then all 2y. In this periode no significate increase of accidents due to mecanicel or technical failures was veryfiable. So no need to shorten the review periode for gliders!</p> <p>Also for powered aircrafts an review all 2 or 3 Years is sufficent. This aircrafts are controlled one time at least each year by a licensed organisation (annual inspection). So an extra airworthiness review each year is a nonsense.</p>

response

*Not accepted*

The Agency does not agree with the 2/3 year validity, without conditions, of the ARC.

The current proposal already allows to perform airworthiness reviews every 3 years if the aircraft stays in a controlled environment (subject to two extensions).

comment

646

comment by: *Fédération Française Aéronautique*

AFFECTED PARAGRAPH:

M.A.901 (d)

PROPOSED TEXT/ COMMENT:

We propose to modify M.A.901 (d), 2 (page 119/144):

2. For airworthiness review certificates it has issued, extend twice for a period of one year each time when the aircraft has remained in a controlled environment as defined by the following conditions:

a. ....

3. For airworthiness review certificates initially issued by a Member State authority, when the aircraft has remained within a controlled environment, extend twice the validity of the airworthiness review certificate for a period of one year each time. An airworthiness review certificate shall not be extended if the organisation is aware or has reason to believe that the aircraft is not airworthy.

JUSTIFICATION:

We suggest to allow, in the 2 following cases, a CAMO to extend an ARC issued initially by the NAA:

1. For a new aircraft delivered after the 28 september 2008
2. For an aircraft imported from outside the Member States, below 2730kg MTOM, that is not used in commercial air transport (the CAMO who performed the review, issued a recommendation to the NAA, control the aircraft for one year, it is not allowed to extend the ARC).

response

*Accepted*

Alleviations have been proposed for aircraft not used in commercial air transport to allow the CAMO managing the aircraft to extend twice the validity of an ARC issued by another CAMO or by the competent authority, when the aircraft is in a controlled environment. (M.A.901(f), M.A.711(a)4).

comment

647

comment by: *Fédération Française Aéronautique*

AFFECTED PARAGRAPH:

M.A.901 (e)

PROPOSED TEXT/ COMMENT:

We are agree with task M 017 develop in the explanatory note [ B), i), 39 ] and confirmed with M.A.901 (e) (page 119 and 120/144). For us, in the first

sentence, the word "*shall*" is very important. We approve paragraph 2 too; it was one of our strong and reasoned request on the 07-2005 NPA.

response *Noted*

comment

671

comment by: *CAA Finland, Communications*

**M.A.901(d)2.b**

The text; "This includes M.A. 803(b) maintenance carried out and released to service according to M.A. 801(b)2 or M.A. 801(b)3" has to be rewritten.

It is not clear compared to previous sentence, in order to be in a controlled environment, that the aircraft must be maintained by an approved maintenance organisation. It may be understood that it is sufficient with Part-66 and Pilot/owner limited maintenance only.

response

*Not accepted*

It is the subject of M.A.901(d) 2 b. statement to say that "the aircraft has been maintained by approved maintenance organisations since the CAMO issued the ARC". There is no doubt up to this stage. It adds that any maintenance carried out under pilot-owner authorisation (M.A.803(b)) is considered as being carried out by an approved AMO, whether it is released by certifying staff (M.A.801(b)2) or by the pilot-owner himself (M.A.801(b)3).

comment

672

comment by: *CAA Finland, Communications*

**M.A.901(e)2.**

If there will not be sufficient CAMOs with the appropriate ratings prior to 28 September 2008, the competent authorities will encounter huge burdens in terms of man-hour, lack of airworthiness review staff etc. Also is it possible to assure a level playing field with CAMO organisations and NAA:s. NAAs should not compete with CAMOs.

response

*Not accepted*

However, in many cases NAAs are performing airworthiness reviews under national rules.

comment

683

comment by: *Royal Swedish Aero Club*

NPA2007-08 (NPA A IV - 39 to 41) has made significant changes and improvements to this part of the rule, specifically enabling light/non-CAT aircraft to continue to operate on owners responsibility, provided ARC's are issued on an annual basis by NAA or CAMO (the so-called Uncontrolled Environment). To be genuinely helpful it could merit widening to enabling ARC renewals at a 3 year interval as with the controlled environment with two extension years allowed, (as Controlled Environment).

**Justification**

This rule now works in a regulatory sense. Nevertheless it is unlikely to be supported by NAA's, who are already disfavouring it as a way forward. EASA should consider supportive action to ensure that this option is not closed out by NAA's for light/non-CAT operation only.

response *Not accepted*

The Agency does not agree with the 3 year validity, without conditions, of the ARC.

The current proposal already allows to perform airworthiness reviews every 3 years if the aircraft stays in a controlled environment (subject to two extensions).

**B. Draft Rules - II. Draft Opinion (EC) No 2042/2003 - M.B.303 Aircraft continuing airworthiness monitoring**

p. 56

comment 95

comment by: *DGAC France*

According M.B.303, "If during aircraft surveys evidence is found showing non-compliance to a Part-M requirement, and if the root cause of the finding identifies a non-compliance with any Subpart or with another Part, the non-compliance shall be dealt with as prescribed by the relevant Part."

However the authority responsible for addressing the root cause, may be different from the authority having made the finding on the aircraft. It is thus important to ensure appropriate exchange of information between authorities.

We propose to add a new paragraph i) to M.B.303 stating:

"i) In order to facilitate appropriate enforcement action, competent authorities shall exchange information on non compliance identified in accordance with h) above."

response *Accepted*

M.B.303(i) has been added.

**B. Draft Rules - II. Draft Opinion (EC) No 2042/2003 - M.B.706 Changes**

p. 57

comment 412

comment by: *Bill Taylor*

**MA 901 - Aircraft Airworthiness Review.** It is noted that NPA2007-08 (NPA A IV – 39 to 41) has made significant changes and improvements to this part of the rule, specifically enabling light/non-CAT aircraft to continue to operate on owners' responsibility, provided ARCs are issued on an annual basis by the NAA or CAMO (the so-called Uncontrolled Environment). In other recommendations I have proposed that for light and sport aircraft the ARC should be able to be issued by the Subpart F organisation without having the need to employ a separate Subpart G organisation.

More importantly, for this range of aircraft, such as ELA 1 and ELA 2 to be proposed by the MDM 032 working group as changes to Part 21, rather than having to have the ARC renewed annually in the uncontrolled environment, this renewal should be carried out every three years and the Subpart F or supervising Part 66 certifying staff should be allowed to extend the ARC on two occasions, as is the case within so-called the controlled environment.

The present requirement to call upon a CAMO or NAA for this function is wholly disproportionate for this level of aviation, where the risk is low compared to commercial air transport.

**Action Required.** Accordingly, it is recommended that a new subpara (g) be added to MA 901 as follows:

*(g) By derogation, for aircraft complying with Part 21, 21A.14(b) and*

21A.14(c) (ELA 1 and ELA 2), not involved in commercial air transport and operating in the uncontrolled environment, the airworthiness review and ARC renewal may be completed at three-year intervals and for the intermediate two years the ARC may be extended by the supervising Part 66 certifying staff or a Subpart F organisation.

response *Partially accepted*

M.A.901(g) has been introduced for ELA1 aircraft in order to allow independent certifying staff to issue recommendations under certain conditions.

ELA2 aircraft have not been included because they are significantly more complex.

**B. Draft Rules - II. Draft Opinion (EC) No 2042/2003 - M.B.901 Assessment of recommendations**

p. 57

comment 245

comment by: *British Gliding Association*

MA.901 – Aircraft airworthiness review

NPA2007-08 (NPA A IV – 39 to 41) has made significant changes and improvements to this part of the rule, specifically enabling light/non-CAT aircraft to continue to operate on owners' responsibility, provided ARCs are issued on an annual basis by the NAA or CAMO (the so-called Uncontrolled Environment). To be genuinely helpful it could merit widening to enabling ARC renewals at a 3 year interval, as with the controlled environment with two extension years allowed, (as in the Controlled Environment).

Reason Text

This rule now works in a regulatory sense. Nevertheless it is unlikely to be supported by NAAs, which are already not in favour of it as a way forward. EASA should consider supportive action to ensure that this option is not closed out by NAAs for light/non-CAT operation only.

response *Not accepted*

The Agency does not agree with the 3 year validity, without conditions, of the ARC.

The current proposal already allows to perform airworthiness reviews every 3 years if the aircraft stays in a controlled environment (subject to two extensions).

comment 482

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

DAeC welcomes the changes which will allow a CAMO to issue the ARC without the need to have the aircraft managed by the CAMO and without the need for having maintenance performed only at approved maintenance organisations. However this change of the regulations is contradicted by M.A.201 (i) in those cases where the Member State requests the operator to hold a certificate for its operational activities. In some Member States the operators are re-requested to hold a certificate for flight training even in light aviation (e.g. sailplanes). DAeC suggests introducing a weight limit as threshold in M.A.201 (i).

M.A.201 (i) should read as follows:

(i) When an operator of aircraft above 2730 kg MTOM is requested by a Member State to hold a certificate for its operational activities, other than for commercial air transport, it shall: [...]

Some Member States have made good experience by carrying out airworthiness reviews / physical inspections every 24 or 36 month only. No safety thread was detected by that approach. DAeC therefore suggests extending the period of validity of an ARC to 24 month in cases of sailplanes and powered sailplanes.

response *Partially accepted*

See reply to comment 507.

comment 507

comment by: *European Gliding Union (EGU)*

EGU welcomes the changes which will allow a CAMO to issue the ARC without the need to have the aircraft managed by the CAMO and without the need for having maintenance performed only at approved maintenance organisations only. This reopens the door for the uncontrolled environment, which was common in the majority of Member States in the past decades. Except France had a concept similar to the controlled environment, which clearly showed an increase of pa-perwork and cost.

However this envisaged change of the regulations is contradicted by M.A.201 (i) in those cases where the Member State requests the operator to hold a certificate for its operational activities. In some Member States the operators are requested to hold a certificate for flight training even in light aviation (e.g. sailplanes). EGU suggests introducing a weight limit as threshold in M.A.201 (i).

M.A.201 (i) should read as follows:

(i) When an operator of aircraft above 2730 kg MTOM is requested by a Member State to hold a certificate for its operational activities, other than for commercial air transport, it shall: [...]

(ii) Some Member States have made good experience by carrying out airworthiness reviews / physical inspections every 24 or 36 month only. No safety thread was detected by that approach. EGU therefore suggests extending the period of validity of an ARC to 24 month in cases of sailplanes and powered sailplanes.

response *Partially accepted*

See new M.A.201(i) and EC2042/2003 Article 7.3(a).

The requirement for controlled environment has been limited to commercial operations. It will not be required for other activities even if the Member State requires an operational certificate (other than commercial air transport).

The validity of the ARC is kept in 1 year. See reply to comment 245.



comment

543

comment by: Marie THERY

**Propositions:**

1. A CAMO, even if not approved to issue ARCs, should be allowed to extend twice the validity of an ARC issued by any appropriately approved CAMO or by the Authority, as soon as:

- it has continuously managed the aircraft since the issue of the ARC
- the aircraft has been continuously maintained by approved organisations (except potentially for Appendix VIII tasks).

This would lead to 3 possible situations:

- a - Uncontrolled environment: 1-year airworthiness review cycle, ARC issued by the Authority or a CAMO with the M.A.711(b) privilege
- b - Controlled environment but the CAMO does not have the M.A.711(b) privilege: 3-year airworthiness review cycle, ARC issued by the Authority or a CAMO with the M.A.711(b) privilege
- c - Controlled environment and the CAMO has the M.A.711(b) privilege: 3-year airworthiness review cycle, ARC issued by the CAMO

2. I fully support the option offered to the applicant to choose between a CAMO and the Authority for general aviation aircraft of less than 2730 kg. However, in order to conciliate the different situations in Europe where some NAAs already have a system in place to perform airworthiness reviews on a large scale, while others would not be ready to build such a system before 28 Sept 08, an alternative to the proposed M.A.901(e)2. would be to apply the same principle as in Part 66 for basic or type examinations: *if the NAA has chosen to offer this service*, the applicant has the choice between the NAA and a part 147 organisation.

**Rationale:**

1. The M.A.711(b) privilege to issue ARCs is only a recognition of a capacity to perform an airworthiness review. There is no reason why it should give additional confidence in the way the management is performed on a day-to-day basis. In particular, the calendar time between 2 airworthiness reviews and the ability to extend the validity of an ARC *without* an airworthiness review should be independent from the M.A.711(b) privilege.

Note: it could even be considered that the fact to have the airworthiness review performed by a different organisation (another CAMO or the Authority) is a factor of safety.

In addition, there is a practical interest for this proposal: a number of CAMOs might not have the M.A.711(b) privilege on 28 Sept 08 because:

- the instruction by the Authority will not be finished on time; or
- because they do not intend to apply for the I privilege (for example because of liability issues)

2. Self-explanatory.

response

*Partially accepted*

Item 1) Your proposal has been introduced in M.A.711(a)4 and M.A.901(f).  
 Item 2) Part-66 does not say "if the NAA has chosen to offer the service..."  
 In M.A.901 it says "shall" in order to make sure that the airworthiness review is performed.  
 See also the reply to comment 431.

**B. Draft Rules - II. Draft Opinion (EC) No 2042/2003 - M.B.902**  
**Airworthiness review by the competent authority**

p. 57-58

comment 2 comment by: *BPvL e. V.*  
 The same comment as on M.A.707 No difference between commercial and non commercial aircrafts when performing maintenance.

response *Not accepted*  
 See reply to comment 1.

comment 432 comment by: *Ludwig Hessler*  
 Comment:  
 As under M.A.707 a technical degree is also considered sufficient for the qualification of airworthiness review staff, which must be put into question.

response *Not accepted*  
 A technical degree is one of the conditions, but not the only one.

comment 581 comment by: *Malta Department of Civil Aviation*  
 Definition of appropriate Part-66 AML may be critical. Finding AR staff in the authority with Part-66 B1.2 AML is almost impossible.

response *Noted*  
 There is also the option of an individual holding an aeronautical degree or equivalent.

comment 648 comment by: *Fédération Française Aéronautique*  
 AFFECTED PARAGRAPH:  
[M.B.902](#)  
 PROPOSED TEXT/COMMENT:  
 We approve M.B 902.2 (a) (page 125/144). It was one of our requests on the 07-2005 NPA.

response *Noted*

**B. Draft Rules - II. Draft Opinion (EC) No 2042/2003 - Part M Appendix I  
"Continuing Airworthiness Arrangement"**

p. 58-60

comment	112	comment by: <i>Ludwig Hessler</i>
	5.1, 2. ... - develop a maintenance programme for the aircraft, including any reliability programme developed, <u>if applicable</u>	
	JUSTIFICATION: The wording ", if applicable" should be added, because for aircraft of 2730 Kg MTOM and below a reliability programme is not required.	
response	<i>Accepted</i> Appendix I to Part-M has been amended.	
comment	277	comment by: <i>Walter Gessky</i>
	<b>Appendix I, 5.1.7</b>	
	Change the text:	
	For aircraft of 2730 Kg MTOM and below, that are not used in commercial air transport, the recommendation <b>has to be issued only for</b> <del>will be limited to</del> the import of an aircraft in accordance with Part-21 and M.A.904.	
	Justification: Editorial, clear wording.	
response	<i>Accepted</i> Appendix I to part-M has been amended	
comment	285	comment by: <i>Walter Gessky</i>
	<b>Appendix I, 5.1.7</b>	
	Change the text:	
	For aircraft of 2730 Kg MTOM and below, that are not used in commercial air transport, the recommendation <b>has to be issued only for</b> <del>will be limited to</del> the import of an aircraft in accordance with Part-21 and M.A.904.	
	Justification: Editorial, clear wording.	
	This comment is duplicated by error.	
response	<i>Accepted</i> Appendix I to Part-M has been amended	
comment	484	comment by: <i>Deutscher Aero Club e.V. (DAeC)</i>
	5.1 No. 8. and 5.2 No. 9. : occurrence reporting	

The arrangement obliges both the owner and the CAMO to carry out occurrence reporting. This duplication is may not in the sense of the regulation.

5.1 No. 7.

"For aircraft of 2730 kg and below, that are not used in commercial air transport, the recommendation will be limited to the import of an aircraft in accordance with Part-21 or M.A.904" This seems to be a comment only and should be reviewed whether its should be a part of the arrangement.

response *Noted*

Regarding the occurrence reporting, please refer to the reply to comment 508.

Regarding to the reference to the recommendations, the paragraph was introduced in Appendix I to provide accuracy. The Agency supports the inclusion of such paragraph.

comment 508

comment by: *European Gliding Union (EGU)*

5.1 No. 8. and 5.2 No. 9. : occurrence reporting

The arrangement obliges both the owner and the CAMO to carry out occurrence reporting. This duplication is may not in the sense of the regulation.

response *Not accepted*

The mentioned paragraphs state that the owner and the CAMO will carry out all occurrence reporting mandated by applicable regulations.

In addition to the requirements of M.A.202, the owner and the CAMO have to consider:

1) AMC 20-8 "Occurrence Reporting": It applies to all persons and organisations regulated by EC1592/2002.

2) Directive 2003/42/EC of the European Parliament and the Council "Occurrence Reporting in Civil Aviation"

This means that not only occurrences related to maintenance must be reported, but also occurrences related to:

1) Aircraft Flight Operations

2) Aircraft Technical

3) Aircraft Maintenance and Repair

4) AIr Navigation Services, Facilities and Ground Services.

As a consequence, the owner may be aware of occurrences that are not known to the CAMO, and which must be also reported.

comment 546

comment by: *Graham Lambert*

No provision is made for taking gliders out of the EU either by the pilot or by someone borrowing the glider. Gliders are often taken to other countries such

as South Africa or Australia for a period longer than 30 days, sometimes for the whole gliding season of the country to where the glider is transported. Reporting pilot maintenance on a regular basis under these circumstances would be cumbersome, and of little value until the glider was returned to the EU.

response *Noted*

We assume that you are talking about taking the glider outside the EU without changing the registration of the glider.

In such a case, the requirements of Part-M are still applicable.

Nevertheless, Part-M does not oblige the owner of the glider to have a contract with a CAMO. However, if the owner decides to make such a contract, the contract should address this case so the CAMO can still comply with its obligations. Provisions should be introduced in the contract to make sure that the flight hours and cycles are notified to the CAMO with an adequate periodicity.

In addition, the CRS issued by the pilot should be introduced in the aircraft records within 30 days.

comment 583 comment by: *Programme Manager Europe Air Sports*

Clarify in Appendix I the obligation for occurrence reporting by the CAMO and/or the owner. It is not necessary nor helpful if the same occurrence is reported twice

response *Noted*

Refer to reply to comment 508.

comment 649 comment by: *Fédération Française Aéronautique*

Appendix I – Continuing Airworthiness Arrangement

PROPOSED TEXT/ COMMENT:

We approve § 5.1.7 (page 127/144). It was one of our requests on the 07-2005 NPA.

response *Noted*

**B. Draft Rules - II. Draft Opinion (EC) No 2042/2003 - Part M Appendix VII** p. 60-61  
**“Complex Maintenance Tasks”**

comment 409 comment by: *CAA-NL, SCI*

3a) and b) only deal with dismantling and removal. CRS however is required for assembly/installation.

response *Accepted*

The corresponding paragraphs have been amended

comment	<p>413</p> <p style="text-align: right;">comment by: CAA-NL, SCI</p> <p>Listing the complex tasks is not a safe approach, as anything not listed is automatically considered non-complex. New technologies would automatically be considered as non-complex, unless the regulation is timely amended. Moreover, the level of complexity of many tasks differs considerably between aircraft types. For example, no turbine engine tasks are included. It would be better to list non-complex tasks. Listing all the non-complex tasks however is not feasible. Therefore, the following text is proposed:</p> <p>"The following constitutes the complex maintenance tasks referred to in M.A.801(b)2. Tasks are considered complex, when:</p> <ul style="list-style-type: none"> <li>a) They require specialist knowledge and/or skills, unless the certifying staff has verified through self-assessment to possess such knowledge and/or skills;</li> <li>b) Several persons are involved in the task, including any subtasks, requiring coordination and control;</li> <li>c) The task, including any subtasks, takes a prolonged period of time to accomplish, requiring coordination and control;</li> <li>d) When listed below. These tasks need to be performed within an approved maintenance organisation because they are likely to involve the need for special tools, equipment and facilities."</li> </ul> <p>The listing proposed in the NPA is to follow; note the separate remarks.</p>
response	<p><i>Partially accepted</i></p> <p>The intent of your comment has been accepted. Appendix VII has been amended accordingly.</p> <p>However, your proposal a) has not been introduced because the knowledge and skill of an independent certifying staff can not be questioned.</p> <p>The main concept behind the list is that complex tasks need special facilities, tooling and equipments which usually are only available in an approved organisation. In addition we accept that those tasks requiring special coordination procedures (prolonged tasks, with different persons involved) should also be included as complex tasks.</p>
comment	<p>433</p> <p style="text-align: right;">comment by: Ludwig Hessler</p> <p>Comment: The extension of Annex VII regarding complex maintenance tasks is welcomed. However, tasks regarding the propeller should be summarised as point 4 and not segment c) under piston engines.</p> <p>Under point 3 (b) the word "removal" should be deleted. Reduction gears on Rotax motors can be changed without difficulties. Dismantling should however remain here.</p>
response	<p><i>Accepted</i></p> <p>Appendix VII to Part-M has been modified accordingly.</p>

<b>B. Draft Rules - II. Draft Opinion (EC) No 2042/2003 - Part M Appendix VIII</b> <b>“Limited Pilot Owner Maintenance”</b>	p. 61-62
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comment

3

comment by: *BPvL e. V.*

In General it is a good idea to split the pilot owned maintenance into the four parts, but...

The very thought of it that it should enough for the pilot owned maintenance, that the pilot owner must **satisfy himself that he is competent???** To carry out any task of maintenance?

You really want to let the pilot owner certify themselves that they have the skill to perform maintenance on flying aircrafts?? In every Part 145 organisation a Cat-A certifying staff have to be trained within the complete Part 66 and has to have years of experience to sign a standard servicing / lubrication on an aircraft. The minimum is that the pilot owner has to show the competent authority or his CAMO that he is able to perform any maintenance on his aircraft before doing it.

Within ICAO regulations, pilots needs training and examination before doing any maintenance on their own aircrafts. Why not in Europe?

The best way for the safety of flight is to reduce the Annex VIII to: add fuel, oil and clean the windows if the pilot owner is not able to show that he has the skill to perform any maintenance on his aircraft. This aircrafts have to be maintained in certified organisations only. Also some clubs like DAEC have well trained and experienced pilots, which are organised in maintaining there aircrafts together under supervision of technician and aircraft inspectors. We recommend to give the pilot owner the following options:

- Showing his competence to the authority or CAMO if he wishes to perform his own maintenance. The points of maintenance should be clarified in the maintenance program. The material needed for that maintenance must be certified.

- For pilot owners, which are not able to show their competence for pilot owned maintenance, they have to choose if they will maintain there aircraft within an organisation like DAEC or send it into a certified organisation.

Another point will be problems, if you try to sell these aircrafts. Who will buy an aircraft were an amateur performed the maintenance? Answer: no one will do it, even not another amateur.

response

*Not accepted*

Your approach is correct, however there is a large difference between both cases:

- a category A licensed certifying staff certifies for release an aircraft operated in commercial air transport which may carry a number of passenger up to several hundreds,

- while a pilot owner certifies for release his own aircraft after carrying a task which is not related to safety.

The policy of allowing a pilot-owner to satisfy himself that he is competent, has been proposed by a working group after having balanced and evaluated all possible options.

This does not mean that the pilot may release an aircraft after having carried out a pilot-owner task for which he is not competent.

The new text of Appendix VIII in this NPA and the resulting text after the

consultation period details several conditions under which a pilot owner may release his aircraft, and it is clearly stated that it is his responsibility to familiarize himself with the task.

It is already required that the maintenance programme be updated to show the pilot-owner tasks.

The Annexe VIII has been introduced in Part-M because it did not seem reasonable to prevent a pilot-owner who is competent in carrying himself a maintenance task, to do so.

#### Self assessment

The list (Appendix VIII of Part M) has been compiled to exclude safety critical items and no current evidence exists to support that self assessment would produce accidents caused by Pilot-Owner Maintenance. Assessment of a pilot-owner's competence by a maintenance organisation or a licensed person or NAA was considered to be unjustified when compared against the perceived safety benefit

In addition, as described in M.A.201 (a) & (c), the owner remains responsible for the maintenance tasks performed.

Refer also to paragraph 64 of the NPA explanatory note where additional elements to the assessment of the pilot's capability are given.

Refer also to comment n°12

The Term of reference of M-005 was not to challenge the existence of the pilot owner maintenance in accordance with Part M Appendix VIII but to improve it.

It is the pilot-owner's choice to permanently give the maintenance of his aircraft to an approved maintenance organisation or to accept that he may have the tasks he performed itself to be checked or redone by an approved maintenance organisation before selling the aircraft outside Europe.

Refer to §59 of the NPA explanatory note about the breach to ICAO rules

Your last remark is correct, as these pilot-owner are not mentoned by ICAO, it may be required by the new owner that the tasks carried out by the previous owner should be re-certified by an approved organisation.

comment 37

comment by: *Austro Control GmbH*

Proposed new text:

Appendix VIII - Limited Pilot Owner Maintenance, Pt. 1

1 Before carrying out any maintenance tasks as listed in this appendix, the pilot owner must satisfy himself that he is competent to do the task. It is the responsibility of pilot owners to familiarize themselves with the standard maintenance practices for their aircraft and with the aircraft maintenance programme- by documented training of an authorised licensed personal or by competent personal with privileges acc. national licence system.

Justification: It is a major reduction on technical standard to the previous need of demonstrating the competency to carry out such maintenance tasks. It the context that this Pilot Owner Authorisation is a deviation to ICAO standard it



should not be reduced to a level of self assessment. A documented training is a chance to demonstrate a minimum of practical introduction.

response *Not accepted*

The lists (Appendix VIII of Part M and its AMC) have been compiled to exclude safety critical items and no current evidence exists to support that self assessment would produce accidents caused by Pilot-Owner Maintenance. Assessment of a pilot-owner's competence by a maintenance organisation or a licensed person or NAA was considered to be unjustified when compared against the perceived safety benefit

In addition, as described in M.A.201 (a) & (c), the owner remains responsible for the maintenance tasks performed.

Refer also to paragraph 64 of the NPA explanatory note where additional elements to the assessment of the pilot's capability are given.

If the pilot-owner is not competent for the task to be carried out, the task cannot be released by the pilot-owner. Therefore, it is the pilot's choice to receive training if he wants to gain competency in order to perform pilot-owner maintenance tasks.

Additionally, the concept of pilot-owner maintenance is not new: sufficient experience in various European and American countries demonstrates that no significant reduction of safety level exists.

comment 94

comment by: DGAC France

Modify paragraph 7 of Appendix VIII as follows:

"7. Any task related to an Airworthiness Directive is not considered as pilot owner maintenance, unless specifically allowed in the AD **or approved by the competent authority.**"

In case of foreign AD directly applicable in Europe, the case of pilot owner maintenance may not be properly addressed as it would have been with AD directly issued by the Agency.

response *Not accepted*

This is not the intention of Part M to regulate the approval of an AD.

The existing requirement in Part 21.A.3B remains unchanged.

comment 113

comment by: Ludwig Hessler

Paragraph 1: AMC should describe the documentation of the familiarization.

Paragraph 2 should be changed to "The maintenance instructions of the TC holder as expressed in the aircraft maintenance manual and instructions for continuing airworthiness..."

add in paragraph 11: IFR operations of rotorcraft

JUSTIFICATION:

Paragraph 2: The word "aircraft" should be added to show, that the pilot owner is not allowed to do neither component maintenance as expressed in the

component maintenance manual nor engine maintenance as expressed in the engine maintenance manual.

Paragraph 11: Tasks in Appendix VIII Table A and B shown...

response *Not accepted*

Paragraph 1) The principle of self-assessment does not require demonstration of familiarisation with specific documentation.

Paragraph 2) component maintenance is not authorised for pilot-owner maintenance and additionally in accordance with M.A.502, only approved maintenance organisation may perform component maintenance.

Paragraph 11) twin engine rotorcraft are necessary for IFR operations, which is out of the remit of pilot-owner maintenance.

comment

150

comment by: *John Tempest*

Appendix VIII

Propose item 12:

12. Irrespective of clauses 1 thru 11, the owner-pilot may carry out any maintenance task on the aircraft, provided that those items not included in Appendix VIII are carried out under the supervision of the certifying engineer.

Reason.

There are many cases currently where a privately owned aircraft is rebuilt/restored and maintained by the owner under the supervision/control of an Approved Organisation. This should be allowed to continue.

Justification.

Providing that the Approved Organisation is satisfied with the quality of the maintenance work carried out and is willing to certify the work, there should be no restriction of the owner carrying out the work.

response *Not accepted*

There is no requirement for this proposal because this is already standard practice: the certificate of release to service will have to be issued by the Part 66 certifying staff. It is not considered to be pilot-owner maintenance.

Refer to M.A.801(c)

comment

177

comment by: *FFVV*

On behalf of FFVV

About Periodical inspections - Yearly inspection should be included in pilote maintenance tasks, if any specific task in the check list appears as out of a pilote competence, he may sub contract to an other pilot (or a mechanic) who get this required skilness, and then deliver the ARC which remains his responsibility

Page viewed on 2007-10-10 09:32:58 GMT

response *Not accepted*

Pilot-owner maintenance should not be confused with the issuance of an ARC, the tasks should be understood as of different intention and carried out by differently approved organisations. A pilot-owner task may not be sub-contracted to another pilot, unless this other pilot owns also the aircraft or is himself accepted as registered owner by the Member State of registry. This should be specified in the document which defines the legal owners.

The concept of pilot-owner maintenance only applies for being both pilot and owner at the same time.

For that reason, the term "**pilot-owner**" will be further used and the NPA has been corrected accordingly.

If the pilot-owner is not competent for the task to be carried out, the task cannot be released by the pilot-owner.

In such a case, the pilot owner will have to ask an independent PART 66 certifying staff or an approved maintenance organisation to carry out and certify the maintenance performance.

comment 178

comment by: *BCAA - DAE - Certification*

The safeguards defined within the new Part M requirements should allow to avoid the corrupt practices or the mistakes in the pilot owner maintenance tasks.

However, some maintenance tasks (authorized to the pilot owner) with a superficial simplicity could present hidden not inconsiderable risks. For exemple, maintenance tasks on fuel system or on powerplant installation (Part A ata 28 & Part C ata 71)

response *Noted*

The list (Appendix VIII of Part M) has been compiled to exclude safety critical items.

Compare with the previous list as proposed initially by Part M, the list of tasks proposed by the NPA has been reduced.

Nothing we can do can prevent mistakes and there is no evidence that corrupt practices exist, even with pilot-owner maintenance already implemented in some Member States.

comment 182

comment by: *Ludwig Hessler*

The basic principles paragraph 8. should be amended as follows:

8. The pilot owner must inform the M.A. Subpart G Continuing Airworthiness Management Organisation (if applicable) **as soon as possible but** not later than 30 days after completion of the pilot owner maintenance task IAW M.A 305 (a). **In all cases the continuing airworthiness management organisation has to be informed in good time before the next scheduled maintenance event or airworthiness review beeing due.**

JUSTIFICATION:

The max. time period for having to report pilot owner maintenance to the

CAMO is with 30 days after maintenance accomplishment determined very generously. In order to avoid conflicts with the airworthiness management of the responsible CAMO it is felt, that the regulation should establish further timely limits as proposed.

response *Partially accepted*

There are already provisions in Part M appendix 1, subparagraph 5.2.5 where the obligation of the owner is to inform the Part M subpart G organisation of all maintenance exceptionally carried out without the knowledge and control of the Part M subpart G organisation itself.

comment 183

comment by: *Ludwig Hessler*

The basic principles paragraph 4. should be amended as follows:

4. The need to use special tools **or test equipment**, carry out special testing (e.g. NDT, **system tests or operational checks for avionic equipment**) or any unscheduled special inspections (e.g. heavy landing check) prevents the task from being carried out as pilot owner maintenance.

**JUSTIFICATION:**

It is felt by the LBA, that whenever a system test, operational check is required to verify the system integrity after replacement of equipment or parts is required, which cannot be performed without special test equipment, it should not be given free for pilot owner maintenance in general.

response *Accepted*

The appropriate basic principle has been modified accordingly.

comment 284

comment by: *Walter Gessky*

Appendix VIII, Limited Pilot Owner Maintenance

Change the text:

**1.** Before carrying out any maintenance tasks as listed in this appendix, the pilot owner must satisfy himself that he is competent to do the task. It is the responsibility of pilot owners to familiarize themselves with the standard maintenance practices for their aircraft and with the aircraft maintenance programme **and to receive task or type training by an authorized training organisation, a CAMO, the manufacturer or licensed personal.**

**Justification:**

It is not sufficient that the pilot owners familiarise themselves, they also have to show that they have received training on tasks or on the type from a competent organisation/person. This would be in line with ICAO standards in respect of knowledge and skills.

response *Not accepted*

The lists (Appendix VIII of Part M and its AMC) have been compiled to exclude safety critical items and no current evidence exists to support that self assessment would produce accidents caused by Pilot-Owner Maintenance. Assessment of a pilot-owner's competence by a maintenance organisation or a licensed person or NAA was considered to be unjustified when compared

against the perceived safety benefit

In addition, as described in M.A.201 (a) & (c), the owner remains responsible for the maintenance tasks performed.

Refer also to paragraph 64 of the NPA explanatory note where additional elements to the assessment of the pilot's capability are given.

If the pilot-owner is not competent for the task to be carried out, the task cannot be released by the pilot-owner. Therefore, it is the pilot's choice to receive training if he wants to gain competency in order to perform pilot-owner maintenance tasks.

Additionally, the concept of pilot-owner maintenance is not new: sufficient experience in various European and American countries demonstrates that no significant reduction of safety level exists.

Refer to comment n°37

comment

286

comment by: *Walter Gessky*

Appendix VIII Limited Pilot Owner Maintenance  
Add a new 12

**The owner has to designate a person responsible to carry out pilot owner maintenance. He has to verify that the person has the minimum required age, the proper pilot license and ratings and complies with the minimum training requirements.**

Justification:

The concept would give the wrong impression that instead of the owner, only the person who is carrying out maintenance is fully responsible, but a clear and direct responsibility of the owner when maintenance was delegated to an improper or unqualified person **must be specified in the regulation!!**. This is even more important in cases of joint ownership (e. g. limited liability company, legal entity).

response

*Not accepted*

The concept of pilot-owner maintenance only applies for being both pilot and owner at the same time.

For that reason, the term "**pilot-owner**" will be further used and the NPA has been corrected accordingly.

If the pilot-owner is not competent for the task to be carried out, the task cannot be released by the pilot-owner.

In such a case, the pilot owner will have to ask an independent PART 66 certifying staff or an approved maintenance organisation to carry out and certify the maintenance performance.

comment

322

comment by: *Tim FREEGARDE*

Principle 8 appears to require pilots to notify the CAMO of even the most trivial of maintenance tasks, including fuse replacement, removal and replacement of co-pilot control columns, removal and replacement of radios and non-essential instruments and replacement of light bulbs. The volume of paperwork involved in light aviation would be truly awe-inspiring.

response	<i>Noted</i>	
	It is up to the CAMO to establish an efficient and simple system of exchange of information in accordance with Part M Appendix I.	
comment	376	comment by: UK CAA
	PARAGRAPH: Appendix VIII, paragraph 10	
	COMMENT:	
	In the context of this paragraph the definition of an "element" needs to be explained.	
	JUSTIFICATION:	
	Clarity is required to describe what is meant by the term "Element".	
response	<i>Accepted</i>	
	In order to avoid any confusion, it is better to take out the word "element".	
comment	424	comment by: CAA-NL, SCI
	"prevents" unclear/incorrect. Replace 4) with:	
	"In case of a special inspection (e.g. heavy landing check) or in case special tools or special testing (e.g. NDT) are required, the task may not be carried out as pilot owner maintenance."	
response	<i>Accepted</i>	
	The paragraph has been rephrased accordingly.	
comment	429	comment by: CAA-NL, SCI
	5) missing. Renumber next bullets.	
response	<i>Accepted</i>	
comment	447	comment by: Ludwig Hessler
	Comment:	
	Based on the previous comments, the term "pilot owner" should be replaced (see comment for M.A.201). That way, misunderstandings will also be avoided regarding responsibility (see point 8. new Annex VIII). The operator has signed a contract with the CAMO, which also makes him responsible for reporting performed maintenance tasks.	
	For point 11 it is recommended to also include rotorcraft, meaning the addition of Part B. It shall be noted here, that if IFR has been previously excluded, it must not be again excluded in the tables.	
	Generally the separation of aircraft types in Annex VII is very welcomed.	

response	<p><i>Accepted</i></p> <p>M.A.201 (b) specifies that when the aircraft is leased, the responsibilities of the owner are transferred to the lessee if:</p> <ol style="list-style-type: none"> <li>1. the lesse is stipulated on the registration document or;</li> <li>2. detailed in the leasing contract</li> </ol> <p>The operator is considered as the lessee, therefore in this case the owner.</p> <p><i>Accepted</i></p> <p>The list of tasks for rotorcraft has been reviewed accordingly.</p>
comment	<p>456 <span style="float: right;">comment by: <i>CAA-NL, SCI</i></span></p> <p>11: IFR-exclusion (**) only applies to aeroplanes. Include the same limitation for helicopters for the same systems (even if such IFR-helicopters would not be available today).</p>
response	<p><i>Accepted</i></p> <p>The list of tasks for rotorcraft has been reviewed accordingly.</p>
comment	<p>636 <span style="float: right;">comment by: <i>DTruempi</i></span></p> <p style="text-align: center;">see comment to M.A. 803!</p>
response	<p><i>Noted</i></p> <p>Refer to comment n°634</p>
comment	<p>650 <span style="float: right;">comment by: <i>Fédération Francaise Aéronautique</i></span></p> <p>AFFECTED PARAGRAPH: Appendix VIII – Limited Pilot Owner Maintenance</p> <p>PROPOSED TEXT/ COMMENT: There is a large panel of tasks related to an Airworthiness Directive. In most cases there are not complex tasks. Who decide if there can be considered as pilot owner maintenance? We suggest that EASA evaluate, in concert with the TC holder, each AD and note each the time: "applicable" or "not applicable" as pilot owner maintenance.</p>
response	<p><i>Not accepted</i></p> <p>This is not the intention of Part M to regulate the approval of an AD. The existing requirement in Part 21.A.3B remains unchanged.</p>
comment	<p>655 <span style="float: right;">comment by: <i>Holger HALUSA</i></span></p> <p>Sehr geehrte Damen und Herren,</p> <p>für mein Verständnis sind im Part M folgende Verbesserungen wünschenswert:</p>

1. Eine klarere Definition und Abgrenzung der Begriffe und damit Tätigkeiten für "Halter" und "Eigentümer" von Luftfahrzeugen, was dürfen

lizenzierte Piloten eines Luftfahrzeuges und was dürfen Charterer bzw. Vercharterer von Luftfahrzeugen selbst tun.

2. Die Anlage VIII "Eingeschränkte Instandhaltung durch Piloten/Eigentümer" ist für mein Verständnis zu umfangreich und berührt ebenfalls den Punkt 1.

Eine "abgespeckte" Version welche Tätigkeiten durch welche Personen durchgeführt werden dürfen, würde der angestrebten Sicherheit in

der Allgemeinen Luftfahrt nicht abträglich sein.

Mit freundlichen Grüßen

Holger Halusa

response

*Noted*

1. Noted

M.A.201 (b) specifies that when the aircraft is leased, the responsibilities of the owner are transferred to the lessee if:

- a) the lessee is stipulated on the registration document or;
- b) detailed in the leasing contract

The owner is considered as the lessee, therefore in this case the owner.

Charter operations are considered as commercial activities and are therefore excluded from pilot owner maintenance.

2. Noted

The list of tasks has been reviewed regarding safety critical tasks and some tasks have been removed from the current Part M appendix VIII. The remaining tasks have been divided into sub-groups in more details for clarification. Generally speaking, the scope of the tasks has not been extended.

The Term of reference of M-005 was not to challenge the existence of the pilot owner maintenance in accordance with Part M Appendix VIII but to improve it.

Additionally, the concept of pilot-owner maintenance is not new: sufficient experience in various European and American countries demonstrates that no significant reduction of safety level exists

**B. Draft Rules - II. Draft Opinion (EC) No 2042/2003 - Part M Appendix VIII** p. 62-65  
**A/Pilot Owner Maintenance Tasks for Powered Aircraft (Aeroplane)**

comment

4

comment by: BPvL e. V.

General: Why do you add a new weight category? There should be no difference in aircraft maintenance in dependence to the max. Take of weight



neither if this aircraft is used for commercial or non commercial operations.

A lot of the work discribed in Annex VIII is something were you need special training and special tools. According to your own new statement in Annex VII first sentence this should be declared as complex maintenance.

If you count all the single work together, sometimes you have a complete 100 hrs / annual Inspection on some aircrafts. This is nothing what is wanted in the meaning of flight safety.

In no paragraph we can find any word about the material which is needed. How will you guarantee, that only airworthiness parts, filters, clamps, screws, oil, packings etc. are used during the pilot owned maintenance?

We feel, that in this NPA a powerfull group of interest was involved, which is mainly interested in low costs and not in high level safety of flight. This behavior is not very professional, it is dangerous.

#### ATA 20 Standard Practices

No safety wirings on all aircrafts by pilot owner due to safety reasons.

#### ATA 21 Air conditioning

Most of the air conditioning hoses and ducts are installed behind panels where also flight controls are installed. To work in areas of flight controls is a very sensitive area where on all other aircrafts a certifying staff has to check for freedom of the controls and for FOD before closing the panels. This is something that has to be performed in Part 145 organisations.

#### ATA 24 Electrical power

At no time should the pilot owner repair or replace wirings in an aircraft. According to the standard practise you need special tools (Crimping tool), material and special training and knowledge to repair wirings in an aircraft.

#### ATA 24 Electrical Power

To replace bonding cables you need also to check for corrosion and if there is any, you have to remove it before installing the new cable. After installation you need to cover it with corrosion preventing laque. The special material you need for this is nothing what a pilot owner used to have in his tool box.

#### ATA 25 Equipment

In Germany you need an additional special training and licence to work on oxygen systems. It could be very dangerous if you are not well trained. Handling oxygen bottles is like handling a bomb.

#### ATA 25 Equipment

There is no reason for a pilot owner to remove an ELT other than the annual

inspection or battery replacement. This inspection is part of certified maintenance shop maintenance. The battery is a life limited part and has to be replaced by certified maintenance organisations and managed by a CAMO.

#### ATA 25 Equipment

Fire warning system. This is part of the safety system of an aircraft. Due to the amount of different systems it is necessary to be trained to work on it. We saw a lot of systems which were out of service not only due to pilot owned maintenance. So special training is very important.

#### ATA 28 Fuel system

After working on fuel systems you need to perform a leak check, also if a line is fitted with self sealing couplings. Filters have O-rings and are not self sealed. Most of it has to be lockwire after installation. Before the first groundrun the system has to be bled. That is nothing you can do without any training. For safety reasons you need a second instructed person with fire extinguisher available for the ground run.

According to EASA every 145 Organisation has to establish a system with additional trained personal for working on fuel cells and systems. Allowing pilots to work on fuel systems without any training is a slap in the face of every certified engineer.

#### ATA 31 Instruments

You need be well trained and/or have to have a lot of experience to find out which line is a pitot or which a static line behind a cockpit instrument panel is. After years of flying not every line is still correct marked. To perform a system leak check after maintenance (also draining is maintenance) you need a special tool (calibrated Barfield Tester) and training.

#### ATA 32 Landing Gear

Some aircraft manufacturers specify a wheel half rim crack inspection, **everytime** when a tire is removed. For that you need special equipment, training and qualification.

#### ATA 32 Landing Gear

If there is a need to replenish hydraulic fluid into the aircraft braking system, you have a leak problem which should be repaired in a Part 145 organisation before the next flight because of safety reason.

#### ATA 32 Landing Gear

You can destroy any shock absorber if you do not have the correct tool and /or training to fill a shock absorber. An exploding shock absorber can kill people.

#### ATA 32 Landing Gear

To replace a landing skid or skid shoe you need special tool and training. You have to lift the aircraft with the correct jacks. Which pilot has aircraft jacks? In our Part 145 organisation, we used to have a minimum of 3 mechanics to lift

an aircraft. In addition it is secured by the hangar crane.

#### ATA 32 Landing Gear

If an aircraft brake does not work, the aircraft will not stop or leave the runway uncontrolled after the landing. You need special tools and training to replace the breaks and after that to bleed the system.

#### ATA 52 Doors

Excluding doors equipped with emergency release handles. They have to be adjusted and tested for correct operations.

#### ATA 73 Engine Fuel System

The same comment as for ATA 28 aircraft fuel system

#### ATA 77 Engine Indicating System

Same comment as general and ATA 20

#### ATA 79 Engine Oil System

Filter housings are sealed with O-rings. Most if it have additional O-rings inside which are very hard to reach. Some of the housings or clamps have to be lockwired after installation. Due to environmental reasons drained oil and old filters have controlled disposed. Also something what is not guaranteed.

response *Partially accepted*

General comment: the weight differentiation has been deleted.

Concerning the need of special tools, as stated in the basic principles, in those cases the task cannot be considered as pilot-owner maintenance (see basic principles in Appendix VIII).

For materials, the general rules apply: the pilot should always comply with the Part M requirements.

The list of tasks have been put in an AMC (AMC to Appendix VIII). It means that for technical and safe reason due to the specific technology for a specific aircraft, it will be possible to slightly adapt the lists, either by removing or adding a task fully in accordance to the basic principles described in Appendix VIII.

Generic answer to most of the detailed comments: If the task contradicts the basic principles, then the task cannot be carried out by a pilot- owner.

ATA 20 Standard Practices. The item was already in the appendix VIII, the modification apported was to exclude some systems considered critical: "excluding those in engine controls, transmission controls and flight control systems."

ATA 21, Air conditioning. If the task contradicts the basic principles, then the task cannot be carried out by a pilot- owner. Also, Item 1 in the 'Basic Principles' of Appendix viii, state that the pilot-owner is 'familiar with the standard maintenance practices' for his aircraft. A check for foreign objects before closure of panels can be considered to be 'standard maintenance

practice'.

ATA 24, Electrical power, Bonding. App viii, ATA 51, allows the replacement of protective coatings. Removal and repair of corrosion is not listed, if such a defect is found whilst replacing a bonding lead than it is no longer appropriate for POM.

ATA 24, Repair of wiring. The item was already in the previous appendix. The use of crimping tool has been added to basic principle n'4.

ATA 25, Oxygen system. Text modified in "Oxygen System - Replacement of portable oxygen bottles and systems in approved mountings, excluding permanently installed bottles and systems."

ATA 25, ELT. It is within the intent of POM for a pilot to be able to remove an item of equipment such as an ELT, so he can despatch the item for repair and/or testing. App viii does not permit a pilot-owner to carry out this testing.

ATA 26, Fire warning system. The item has been deleted.

ATA 28, Fuel system. The item has been removed from the list.

ATA 31, Pitot/Static systems. If the task contradicts basic principle n'4, then the task cannot be carried out by a pilot- owner. Therefore the task has been kept.

ATA32, Landing Gear, Wheels. If the task contradicts the basic principles, then the task cannot be carried out by a pilot- owner. Therefore the task has been kept.

ATA 32, Landing Gear, Replenish brake fluids. Replenishment of fluids is within the intent of pilot-owner maintenance. A low fluid level is not necessarily indicative of a defect within the system which requires rectification.

ATA 32, shock absorber. The item was already in the appendix VIII; If the task contradicts the basic principles, then the task cannot be carried out by a pilot-owner. Therefore the task has been kept.

ATA 32, landing skid or skid shoe. If the task contradicts the basic principles, then the task cannot be carried out by a pilot- owner. Therefore the task has been kept.

ATA 32, Bleeding of brake units. If the task contradicts the basic principles, then the task cannot be carried out by a pilot- owner. Therefore the task has been kept.

ATA 52, If the task contradicts the basic principles, then the task cannot be carried out by a pilot- owner. Therefore the task has been kept.

ATA 77, If the task contradicts the basic principles, then the task cannot be carried out by a pilot- owner. Therefore the task has been kept.

comment

15

comment by: *Petry*

ATA 20 Standard practices should allow to renew Safety wires/ cotter keys also for aircraft from 1000 - 2730 kg. Otherwise the pilot maintenance on ATA 79 Changing of Strainer & Filter elements/ Oil change, ATA 28 (Fuel filter elements), ATA 32 Wheels and ATA 73 can't be carried out -> No RTS by the pilot owner possible.

response

*Accepted*

The weight discrimination has been removed.

comment 46

comment by: Ian HEY

This comment applies to ATA 20, 31, 32, 77

In a number of occasions an action is permitted for sub 1000 kg aircraft, but not for aircraft 1000 < 2730 kg. This is inconsistent, since if the Pilot Owner is capable of determining that he/she is competent to complete the action in the lighter aircraft, the same is true for the heavier aircraft. The distinction should be based upon the task to be completed, not on the weight of the aircraft which is irrelevant.

The most limiting of the restrictions above is as follows:

**ATA 20 Standard Practices; Safety wiring - replacement of defective wiring or cotter keys, excluding those in engine, transmission, flight control systems.**

Allow safety wiring of oil filter or strainer, oil drain plug, chip detectors and cowling fasteners, in order to allow 50 hr checks to be completed by Pilot Owners on aircraft 1000 < 2730 kg.

See also ATA 72 which permits Chip detector removal and replacement and ATA 79 which permits Pilot Owners to change spin off oil filters, which on Lycoming engines at least require wire locking.

I believe that it is entirely appropriate not to permit Pilot Owners to carry out wire locking on engine controls, transmission controls and flight controls on all weights of aircraft.

response *Accepted*

The weight discrimination has been removed.

comment 53

comment by: Aircraft Engineers International (AEI)

24	Electrical power
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Wiring – Repairing broken circuits [in landing light](#) and any other wiring for non critical equipment, excluding ignition system, primary generating system and required communication, navigation system and primary flight instruments.

Comment:

This must not be allowed.

Reason:

When repairs are carried out incorrectly this can have serious affect on safety, since landing lights are high current users the chance of a resulting fire is therefore very likely. Additionally these lights are often used in daylight to

make the aircraft more conspicuous and thereby easier visible to others. The lights not working due to improper repairs would therefore also be a safety factor. Repairs when carried out properly need specialist tooling, the availability of which is unlikely in a "Pilot Owner maintenance environment", besides which the Pilot Owner would be very unlikely to possess the special knowledge on how to use these tools.

response *Not accepted*

The item was already in the appendix VIII for the landing light system, it was modified to permit the task on others non critical systems whose incorrect performance will not drastically impact the safety.

comment 54

comment by: *Aircraft Engineers International (AEI)*

26	Fire Protection	Fire Warning – Replacement of sensors and indicators.
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Comment:

This must not be allowed

Reason:

If fire warning systems do not work this could lead to a fire developing undetected to such a stage that it is impossible to extinguish or take other emergency measures

response *Accepted*

The item has been deleted.

comment 55

comment by: *Aircraft Engineers International (AEI)*

28	Fuel System
----	-------------

Fuel lines – Replacement of prefabricated fuel lines fitted with self sealing couplings.
--

Comment:

This must not be allowed

Reason:

When this is carried out incorrectly this can have serious affect on safety, since leaking fuel can cause serious fires

response *Accepted*

The item has been removed

comment 124

comment by: *SITEMA – Sindicato dos Técnicos de Manutenção de Aeronaves*

SITEMA is tottally against this.

	<p>JUSTIFICATION:</p> <p>Pilots (or for that matter any non-engineer person) messing with high voltage or high current circuits such as a landing light, is dangerous. A short in the circuit or a bad crimping (<u>to which the PO's are not likely to know how to work with or even have such a specific tool</u>) will surely spark, melt wiring and catch fire, due to its current.</p>
response	<p><i>Not accepted</i></p> <p>The item was already in the appendix VIII for the landing light system, it was modified to permit the task on others <u>non critical</u> systems whose incorrect performance will not drastically impact the safety.</p>
comment	<p>125 <span style="float: right;">comment by: <i>SITEMA – Sindicato dos Técnicos de Manutenção de Aeronaves</i></span></p> <p>SITEMA is tottally against this.</p> <p>JUSTIFICATION:</p> <p>Oxygen bottles are real "bombs waiting to explode" if not handled with extreme care, characteristic only of certifying (Part-66) staff.</p>
response	<p><i>Partially accepted</i></p> <p>Text modified in "Oxygen System - Replacement of portable oxygen bottles and systems in approved mountings, excluding permanently installed bottles and systems."</p>
comment	<p>126 <span style="float: right;">comment by: <i>SITEMA – Sindicato dos Técnicos de Manutenção de Aeronaves</i></span></p> <p>SITEMA is tottally against this.</p> <p>JUSTIFICATION:</p> <p>There is no knowledge of self sealing couplings on fuel lines. Even if there was such, the self sealing coupling would have to be built with sealing systems such as inner cylinders/o-rings, which are not visible to the pilot and therefore requires a high level of technical knowledge, not available to pilots.</p> <p>Also, when cleaning/replacing a fuel filter (which can be of a considerable complexity), if metallic debris are found, there is no certainty the PO's will look at it from a safety side, due to not having enough technical training to recognize those situations.</p>
response	<p><i>Not accepted</i></p> <p>Rejected (fuel lines)</p> <p>The replacement of prefabricated fuel lines is a task that is already in the existing Appendix. The NPA review group does not felt comfortable with this Item, because it does not fit into the concept that a pilot owner task should not</p>

directly related to flight safety.

On the other hand, there are designs, especially some powered sailplanes where self sealing couplings are used, because the completely power plant can be removed and the powered sailplane can be operated as a sailplane (TOP engine system). Therefore the NPA limits this task to such systems. The couplings do not need any type of tool.

Rejected (fuel filter)

The replacement and cleaning of fuel filter is a task that is already in the existing Appendix. Safety provisions have been added into the basic principles, that only simple visual inspections are accepted as pilot-owner maintenance. Any interpretation of debris needs therefore a qualified mechanic. Engines on self sustain airplanes do not create a safety hazard if not working properly.

comment

127

comment by: *SITEMA – Sindicato dos Técnicos de Manutenção de Aeronaves*

SITEMA is totally against this.

JUSTIFICATION:

Fire warning systems are highly sensitive systems, and if not handled with extreme care, it will be the same as not having such a warning system.

response

*Accepted*

The item has been deleted.

comment

142

comment by: *George Knight*

Point 6 states that any task described in the flight manual as preparing an aircraft for flight... is unnecessarily restrictive in relation to sailplanes and self sustaining sailplanes in that there are a number of routine tasks performed when preparing for flight that are not always listed in flight manuals and hence will otherwise fall into the category of maintenance and need a certificate of release to service. Specific additional items that should be assessed as preparing the sailplane for flight, and not as maintenance, are listed below. This list may be incomplete.

- Installing and removing detachable ballast weights to ensure pilot plus weights is within permitted limits. This is often done between consecutive flights.
- Removal and replacement of batteries. Since sailplanes rarely have a built-in battery charger batteries are frequently remove and replaced on a daily basis.
- Replacement of oxygen cylinders and related masks etc when the glider is already adapted to carry removable oxygen cylinders. At wave sites this may be done between consecutive flights.
- Removal / installation of detachable seat backs to adapt cockpit to suit pilots of different sizes.
- Installation or removal of non-required instruments or equipment. Sometimes IGC loggers are installed for a single flight and removed afterwards for the log data to be processed by a third party (competition control). Some devices such as IPAQ computers are pilots



personal equipment but connect to the glider's electrical system and possibly to a built-in GPS, they may be installed for a single flight.

- Repacking of tail braking parachutes since this is done between launches for applicable types.

As an alternative to having a separate list another option would be to amend the table (Appendix VIII Part C /Pilot Owner Maintenance for Sailplanes and Powered Sailplanes) to indicate which items do not need a Certificate of Release to Service in appropriate circumstances.

Failure to extend the list of tasks considered as preparing the aircraft for flight will have a severe impact on operations in the United Kingdom because:

1. As the consultation stands UK sailplane pilots do not have pilot's licences and will not be able to perform pilot maintenance tasks. This means that the routine tasks listed above could not be done before flight.

If the proposal in my comment no 141 to regard holders of a Silver C as equivalent to holders of a pilot's licence is adopted those solo pilots who have not yet attained Silver C standard (or become a licence holder in other states) would need to get a more experienced pilot to perform these routine pre-flight tasks on their behalf - an unacceptable constraint..

response *Noted*

Noted

This comment refers to sailplane and self sustaining sailplanes. Therefore refer to the appropriate section (Part C of the AMMC to Appendix VIII) where most of elements answers to the comment.

comment *151*

comment by: *John Tempest*

### **General**

Proposal to include the ability to carry out the equivalent of a 50 hour/six month check on the aircraft by the owner/pilot.

In the UK, pilot/owners can carry out 50 hour/6 month checks as required by the CAA Light Aircraft Maintenance Schedule (LAMS). Removal of this privilege is considered draconian.

It is important to ensure that all tasks required by the LAMS 50 hour/6 month check are included within the scope of owner/pilot maintenance in Appendix VIII, and that a CRS may be issued by the owner/pilot satisfying these tasks.

Although it is noted in proposed AMC to Appendix VIII on page 95 that the content of a 50 hr check is to be recommended by the manufacturer, it is reasonable, based on satisfactory experience in the UK, to allow owner/pilots to carry out and sign the CRS for servicing work, checks and inspections required during a 50 hour/six month check to LAMS. This would allow most intermediate inspections (if any are required by the manufacturer)

between the annual inspection to be carried out by the owner/pilot, particularly for low-utilisation aircraft where the need to carry out a 100 hour check will not arise during the year between annual inspections. To enable a sensible maintenance schedule which would allow an inspection typical of the LAMS 50 hour/six month check to be carried out by the owner/pilot, the following items should be included in the owner/pilot privileges in Appendix VIII:

INSPECT - Powerplant, liquid, air and gas systems for leaks during and following ground run.

OPERATE/CHECK - Instruments, systems and services. Radio for electromagnetic interference.

CHECK - Following ground run, ensure all cowlings, access panels and doors are secure.

CHECK - Workpack and Log Book entries have been completed and certified. Ensure items due in accordance with CAP 543 have been accomplished and certified.

Structural/Zonal:

INSPECT - External structure of fuselage, mainplanes, empennage, cowlings, nacelles, control surfaces, flaps and other high lift devices.

INSPECT - Surface de-icer system.

INSPECT - Normal and emergency doors and windows, door hinges, door hinge attachment points, required placards and operating instructions.

OPERATE/CHECK - Doors, hatches and windows latching and locking. Months

INSPECT - Agricultural Installations: Hopper, hopper lid, tank, pump, fan, boom assemblies, pipe runs, blowers and spreaders.

OPERATE/CHECK - Agricultural Installations: Emergency dump doors, fan brake, pump control.

INSPECT - Marine Aeroplanes: Hull, floats, spreaders, struts, bracing wires, water rudders, lighting gear, bilge compartments.

OPERATE/CHECK - Marine Aeroplanes: Water rudder system.

Landing Gear:

INSPECT - Landing gear assemblies, shock-absorber struts/units for leaks and correct extension, brake system, brake linings, drums/discs, wheels, tyres.

SERVICE - Tyre pressures, hydraulic brake system fluid level.

Flying Controls:

OPERATE/CHECK - Primary/secondary flight controls and trim systems for full and free movement in the correct sense. Position indicators agree with surface movement.

Liquid, Air and Gas Systems:

INSPECT - Hydraulic, pneumatic, vacuum, other fluid systems.

SERVICE - Fluid levels in reservoirs, accumulator pressures.

INSPECT - Pitot/static system vents, pitot head, drains clear. Pitot head correctly aligned.

Equipment and Environmental:

CHECK - Correct stowage of equipment, validity of date on emergency equipment.

INSPECT - Seats, belts/harnesses, attachment, locking and release.

CHECK - Fire extinguisher for leakage or discharge.

Aeroplane Lubrication:

LUBRICATE - Lubricate aeroplane in accordance with type design organisation recommendations.

**Powerplant Installation:**

OPERATE/CHECK - Engine and propeller controls for full and free movement - throttle, mixture, carburettor heat, cowl flaps, propeller.

INSPECT - Powerplant installation.

**Air Induction:**

INSPECT - Air filter, intake and induction system, turbocharger impeller.

**Exhaust:**

INSPECT - Exhaust manifold, mufflers.

**Engine Lubrication:**

CHECK - Magnetic plugs

SERVICE - Engine oil change. Oil filter. Screens. Note: In accordance with type design organisation recommendations.

**Fuel System:**

CHECK - Filters for cleanliness and tank vents unobstructed. Drain samples from all drain points and check for presence of water, foreign matter and correct colour.

**Propeller:**

INSPECT - Blades, spinner, backplate.

CHECK - Accumulator dome pressure.

**Electrical System:**

INSPECT AND SERVICE - Battery, stowage/compartment, vents and drains. Electrolyte level.

INSPECT - Alternator/generator drive belt tension and condition.

**Radio:**

INSPECT - Aerials, insulators, controllers, instruments, displays, microphones, headsets, jackplugs and sockets.

INSPECT - Placards and markings legible.

OPERATE/CHECK - VHF ground function. OP/C

INSPECT - Cables and terminals, cooling systems, moisture trap areas.

**Instrument Systems:**

INSPECT AND CHECK - Instruments. Legibility of markings and associated placards, band ranges and limit markings.

CHECK - Readings consistent with ambient conditions. Stall warning device operation.

CHECK - Compass 'deviation' or 'steer by' cards - valid until next check.

**Auto-Pilot and Flight Director:**

INSPECT - Displays, instruments, controllers.

OPERATE/CHECK - Manual override, disengagement functions.

In addition to allowing owner/pilots to carry out the equivalent of a LAMS 50 hours check under pilot maintenance rules, the following additions are proposed to the list of tasks within the capability of the owner/pilot:

**Appendix VIII Part A. Item 20**

There is no reason why an owner/pilot of an aircraft in the MTOM range 1000-2730 kg may not safely replace defective safety wiring or cotter keys, excluding those mentioned in the exclusions.

**Appendix VIII Part A. Item 32**

There is no reason why an owner/pilot of an aircraft in the MTOM range 1000-2730 kg may not safely replace worn brake pads and adjust cable brakes provided that he/she is competent.

response *Partially accepted*

A detailed list of permitted checks/inspections is not considered acceptable since most depends on the maintenance standard requested by the T.C. holder in the execution of the task.

Anyway the lists of tasks have been moved to the AMC in order to permit more flexibility but the basic principles remains in Appendix VIII to Part M ("hard" rule).

The 50hours/6 months check will not be systematically qualified for Pilot Owner Maintenance (POM) but most of the 50hours/6 months check will as long as the content complies with the basic principles as described in Appendix VIII. AMC to Appendix VIII to part M give a reasonable list of tasks than can be adapted as long as the ammended list does not challenge these basic principles.

Last part of the comment: the weight differentiation has been deleted. (accepted)

comment 155 comment by: *SITEMA – Sindicato dos Técnicos de Manutenção de Aeronaves*

SITEMA is tottally against this.

JUSTIFICATION

If a leak is present in a system, it will vary geometrically with higher altitudes. Therefore, a small leak at 1000 feet can become a big leak at 10000 feet. PO's are not trained to test every possibility as Part-66 certifying staff are, therefore they can tend to ignore small leaks. This can lead to the danger of collision situations in air.

Also, due to lack of correct training, PO's can tend to identify false situations of leaks if a problem arises with an adapter.

response *Partially accepted*

Any maintenance must be done in accordance with the T.C. Holder maintenance instructions.

Trouble-shooting is not considered pilot- owner maintenance. The item was added in order to complements the item "Instrument Panel- Removal and re-installation" For small G.A. airplanes often the T.C. Holders provide simple methods for the verification of the leak check. In case the T.C. requests the use of special tools, the item cannot be carried out by a pilot-owner according to the basic principles in Appendix VIII.

The task is not permitted on IFR airplanes.

comment	<p>157 <span style="float: right;">comment by: <i>SITEMA – Sindicato dos Técnicos de Manutenção de Aeronaves</i></span></p> <p>SITEMA feels a consideration should be made:</p> <p>This paragraph should <b>explicitly exclude high-current/high-voltage</b> illumination devices, due to possible fire resulting from a bad crimping or wiring mismatch.</p>
response	<p><i>Not accepted</i></p> <p>The item was already in the appendix VIII for the landing light system, it was modified to permit the task on others <u>non critical</u> systems whose incorrect performance will not drastically impact the safety as long as the task does not challenge the basic principles as described in Appendix VIII.</p>
comment	<p>262 <span style="float: right;">comment by: <i>René Meier</i></span></p> <p>ATA <span style="float: right;">20</span> AecS asks for the safety wiring also being allowed to be performed by a pilot-owner maintainer for aircraft in the 1000...2730 kg bracket.</p>
response	<p><i>Accepted</i></p> <p>The weight discrimination has been removed.</p>
comment	<p>275 <span style="float: right;">comment by: <i>British Gliding Association</i></span></p> <p>Pilot/Owner Maintenance Page 62 Paragraph 8</p> <p>Comment Text</p> <p>The requirement to inform the CAMO not later than 30day after completing Pilot/owner maintenance is bureaucratic and unnecessary for GA/light, non CAT aviation (ie. The only class aviation for which Pilot/Owner maintenance is permitted). In the field the such maintenance (which is accepted as being non-flight critical) is carried out on a regular basis by owners. The requirement to record such activity in the log book should suffice. In any case the overall responsibility for maintenance/continuing airworthiness under Part-M fall exactly on the owner who is carrying out the maintenance. The item should be amended to read: 'The pilot/owner will make available all pilot/owner maintenance to the CAMO (if applicable) at the specified service intervals. This will normally be effected through provision of log book entries or within the ARC extension/renewal paperwork'.</p>
response	<p><i>Accepted</i></p> <p>If the Continuing Airworthiness responsibilities (or part of them) are transferred to a CAMO, they must be aware of the maintenance conditions of the aircraft in order to permit them to discharge their own responsibilities. The exchange of information must be specified in detail in the contract between the owner of the aircraft and the CAMO.</p> <p>30 days has been considered an acceptable time frame for the communication of pilot-owner maintenance tasks not requested by the approved maintenance program.</p>

comment	<p>397</p> <p style="text-align: right;">comment by: <i>Barry Plumb</i></p> <p>The list of allowable tasks to be carried out by the pilot owner of an aircraft has been revised in NPA 2007-08, and differentiation is indicated between aircraft of MTOM &lt;1000 kg and 1000 to 2730 kg. In many cases the task is allowed up to 1000 kg but not for 1000 to 2730 kg. There is absolutely no logic at all in this. Eg "Leak check of pitot static system", or "Replacement of worn break pads". What possible difference is the MTOM expected to make to this function, particularly when two models of the same aircraft design fall below or above the break point (Cessna 172B MTOM 998 kg, Cessna 172M MTOM 1043 kg). It is probable that the SAME COMPONENTS are fitted to each of the two aircraft.</p> <p>The contents of Appendix VIII part A should be re-written to allow all listed activities up to 2730kg</p>
response	<p><i>Accepted</i></p> <p>The weight discrimination has been removed.</p>
comment	<p>440</p> <p style="text-align: right;">comment by: <i>Ludwig Hessler</i></p> <p>Appendix VIII Part A</p> <p>PROPOSED TEXT/ COMMENT:</p> <ul style="list-style-type: none"> <li>- add in block 12: Servicing: Fuel, oil, hydraulic, de-iced and windshield liquid</li> <li>- add in block 30: Ice and rain protection: Windshield wiper replacement</li> </ul> <p>JUSTIFICATION:</p> <ul style="list-style-type: none"> <li>- in block 12 of : Servicing: Fuel, oil, hydraulic, de-iced and windshield liquid replenishment listed in Part B.</li> <li>- block 30: Ice and rain protection: Windshield wiper replacement is listed in Part B.</li> </ul>
response	<p><i>Partially accepted</i></p> <p>Fuel, oil, and consumable fluid replenishment are normally considered part of the pre-flight inspection and therefore are not considered maintenance.</p> <p>The "Windshield wiper replacement" task has been added</p>
comment	<p>445</p> <p style="text-align: right;">comment by: <i>Ludwig Hessler</i></p> <p>Specifically we would like to comment:</p> <p>Part A</p> <p>ATA 25 Oxygen. This segment must be more clearly defined. The intention must be only for additional optional O<sub>2</sub> equipment and not permanently installed bottles.</p> <p>ATA 31 We see no reason for any weight distinction here. It should be allowed for the area above 1000kg as well.</p>

ATA 32 Mechanical brakes. Here also the area above 1000kg should be included.

ATA 51 Structure, Fabric. It is wrong to limit repairs to areas not extending over more than one rib. If there must be a restriction, it should state not more than one field, meaning two ribs. However a restriction at this point is superfluous. The covered portion of a wing or control surface does not rely on the fabric itself for its structural integrity.

The same chapter mentions "protective coating". What exactly is meant by this? Wax? Paint? Regarding painting restricted to minor decorative purposes, additional material needs to be added here.

ATA 52 – 56 Pressurised cabins should be excluded here.

ATA 77 Extend to aircraft up to 2730 kg

response *Accepted*

The weight differentiation has been deleted

ATA 25 Oxygen modified accordingly

ATA 51 Structure, Fabric: accepted, item modified accordingly

ATA 51 Protective coating: the item was already in the appendix, only the reference to "good practices" has been deleted, for obvious reasons.

ATA 52-56 modified accordingly

comment

450

comment by: *SNMSAC Syndicat National des Mécaniciens Sol de l'Aviation Civile*

**NPA 2007-08**

**page 63/144**

**ATA 24**

**Electrical Power Wiring**

**Repairing broken circuits in landing light and any other wiring for non critical equipment.....**

Comment:

**NOT TO BE ALLOWED**

Reason:

**Landing lights are not critical equipments but they are mandatory for landing on regulated airport to be seen from airport tower as well from other A/C. Therefore the wire gauge used for this type of electrical circuit need is of the size needed for big amperage consume equipment and for long period as landing approach.**

**The use of crimping tool under periodic checking are mandatory for all any wiring even if it is not on critical circuit equipment, a bad repair or re-install shall cause an electric fire.**

**THE WIRING SUBJECT IS COVERED BY NPA 2007-01 !**

response *Not accepted*

The item was already in the appendix VIII for the landing light system, it was modified to permit the task on others non critical systems whose incorrect performance will not drastically impact the safety as long as the task does not challenge the basic principles as described in Appendix VIII.

comment

455

comment by: *SNMSAC Syndicat National des Mécaniciens Sol de l'Aviation Civile*

**NPA 2007-08**

**page 63/144  
ATA 26**

**Fire Protection**

**Removal or re-installation of sensors and indicators.**

Comment:

**NOT TO BE ALLOWED**

Reason:

**Fire warning systems have to be checked with a periodic schedule as well after a removal/re-installation and need a proper knowledge of the detector component as well as the wiring circuit and the test tools to verify it (ex: megohmmeter).**

response *Accepted*

comment

524

comment by: *SNMSAC Syndicat National des Mécaniciens Sol de l'Aviation Civile*

**NPA 2007-08**

**page 63/144  
ATA 24**

**Electrical Power**

**Wiring**



**Repairing broken circuits in landing light and any other wiring for non critical equipment.....**

Comment:

**NOT TO BE ALLOWED**

Reason:

**Landing lights are not critical equipments but they are mandatory for landing on regulated airport to be seen from airport tower as well from other A/C. Therefore the wire gauge used for this type of electrical circuit need is of the size needed for big amperage consume equipment and for long period as landing approach.**

**The use of crimping tool under periodic checking are mandatory for all any wiring even if it is not on critical circuit equipment, a bad repair or re-install shall cause an electric fire.**

**THE WIRING SUBJECT IS COVERED BY NPA 2007-01 !**

response

*Accepted*

See comment n°450

Appendix VIII clearly specifies that pilot-owner maintenance tasks shall not be carried out when the task requires the use of special tools, calibrated tools (except torque wrench and crimping tool)

comment

534

comment by: *SNMSAC Syndicat National des Mécaniciens Sol de l'Aviation Civile*

**NPA 2007-08**

**page 63/144  
ATA 28 Fuel system**

Replacement of prefabricated fuel lines fitted **with self sealing couplings.**

Comment:

**NOT TO BE ALLOWED**

Reason:

This is the typical maintenance task witch if not done properly can really affect the flight safety due to fire or lost of all fuel by leaking.

Coupling have rubber gasket mostly not replaceable, if leaking a new component with EASA part one must be fitted.

response

*Accepted*

The item has been deleted from the lists.

comment	<p>564</p> <p style="text-align: right;">comment by: <i>Gristwood, Peter</i></p> <p>In Appendix VIII Part A there seems to be an arbitrary cut-off point based on the MTOW of an aircraft.</p> <p>Given that many aircraft of the same basic type will cross the boundary of 1000kg, it seems perverse not to allow pilot maintenance in one case and not another.</p> <p>For example a DR400-120 would fall into the sub-1000kg category, but the DR400-160/180 would not, yet they are almost identical aircraft.</p> <p>I would suggest that there should be a single weight category of sub-2750kg with variations based on the complexity of the aircraft.</p>
response	<p><i>Accepted</i></p> <p>The weight differentiation has been deleted.</p>

<b>B. Draft Rules - II. Draft Opinion (EC) No 2042/2003 - Part M Appendix VIII B/Pilot Owner Maintenance Tasks for Rotorcraft</b>	p. 65-67
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comment	<p>6</p> <p style="text-align: right;">comment by: <i>BPvL e. V.</i></p> <p>General: Most of our comments are identically to the maintenance tasks for powered aircraft (Aeroplane)</p> <p>ATA 21 Air conditioning</p> <p>Most of the air conditioning hoses and ducts are installed behind panels where also flight controls are installed. To work in areas of flight controls is a very sensitive area where on all other aircrafts a certifying staff has to check for freedom of the controls and for FOD before closing the panels. This is something that has to be performed in a Part 145 organisation.</p> <p>ATA 24 Electrical Power</p> <p>To replace bonding cables you need also to check for corrosion and if there is any, you have to remove it before installing the new cable. After installation you need to cover it with corrosion preventing laque. The material you need for this is nothing what a pilot owner used to have in his tool box.</p> <p>ATA 24 Electrical Power</p> <p>At no time should the pilot owner repair or replace wirings in a rotorcraft. According to the standard practise you need special tools (Crimping tool), material and special training to repair wirings. Also a not correct repaired wire in a non critical equipment can cause an onboard fire. (Remember the MD11 crash at Halifax, the fire was caused by the entertainment system wiring)</p> <p>ATA 25 Equipment</p> <p>Safety belts are life limited items. Additional passenger shoulder harnesses are</p>
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installed behind panels. Some shoulder harness systems for the crew have to be adjusted and checked for correct operations. To install these systems, you need either calibrated torque wrenches or you have to lockwire it. Both are something for a Part-145 organisation.

#### ATA 25 Equipment

There are no emergency flotation gears only with quick disconnect connectors on the market. Most of the common emergency floats have safety wired flex tube installations, between bottle and bags. The explosive cartridge on the bottle and the electrical part needs special training and knowledge.

#### ATA 25 Equipment

There is no reason for a pilot owner to remove an ELT other than the annual inspection. This inspection is part of certified maintenance shop maintenance.

#### ATA 30 Windshield Wiper

Most of the windshield wipers have to be adjusted and lockwired

#### ATA 31 Instruments

You need be well trained and/or have to have a lot of experience to find out which line a pitot or which is a static line behind a cockpit instrument panel is. After years of flying not every line is still correct marked. To perform a system leak check after maintenance (also draining is maintenance) you need a special tool (calibrated Barfield Tester) and training.

Why do you make here a difference between rotorcraft and aeroplanes? The general systems works equal.

#### ATA 32 Landing Gears

Some rotorcraft manufacturers specify a wheel half rim crack inspection, **everytime** when a tire is removed. For that you need special equipment and qualification.

#### ATA 32 Landing Gears

Snow landings pads have to be installed in accordance to the installation manual of the STC-Holder. In some cases you have to lift the rotorcraft or you need calibrated torque wrenches for installation. In all cases a release to service is required.

#### ATA 32 Landing Gears

If there is a need to replenish hydraulic fluid into the aircraft braking system, you have a leak problem, which should repaired in a Part 145 organisation as soon as possible.

#### ATA 32 Landing Gears

You need special tool and training to replace the breaks and after that to bleed the system.

## ATA 52 Doors

Excluding doors equipped with emergency release handles. They have to be adjusted and tested for correct operations.

## ATA 62 Main Rotor

This task should be handled very careful. There are not much type of helicopters certified in the EASA were you can remove or install a main rotor blade without any special tool. (We do not know any). If there is a helicopter designed for that (because of road transport etc.) there should be a procedure in the Flight Manual. If it is in the flight Manual, it could be a pilot owned maintenance. We recommend removing this complete task due to the low amount of helicopters involved. If there is a helicopter which is affected and nothing in the Flight Manual, the affected NAA should clarify this as an unique special task. For this the pilot has to show at a minimum that he is trained and able to perform this task.

## ATA 71 Powerplant Installation

Only if there is no fire detecting system installed inside that cowling and /or if you do not have to remove other parts of the engine first. On some helicopters (like Bell 206) you can only remove the cowling if you remove one exhaust duct first.

## ATA 79 Engine Oil System

Filter housings are sealed with O-rings. Most if it have additional O-rings inside which are very hard to reach. Some of the housings or clamps have to be lockwired after installation. Due to environmental reasons drained oil and old filters have controlled disposed. Also something what is not guaranteed.

response *Partially accepted*

ATA 21, Air conditioning. If the task has operations which are not permitted by App VIII, it cannot be carried out by a pilot - owner. Also, Item 1 in the 'Basic Principles' of Appendix viii, state that the pilot-owner is 'familiar with the standard maintenance practices' for his aircraft. A check for foreign objects before closure of panels can be considered to be 'standard maintenance practice'.

ATA 24, Electrical power, Bonding. App viii, ATA 51, allows the replacement of protective coatings. Removal and repair of corrosion is not listed, if such a defect is found whilst replacing a bonding lead than it is no longer appropriate for POM.

ATA 24, Repair of wiring. Repair of wiring requires crimping tools, which are subject to calibration, therefore their use is not appropriate for pilot-owners. Repair of wiring removed from App viii.

ATA 25, Equipment/furnishings. If the task has operations which are not permitted by App viii, then the task cannot be carried out by a pilot- owner.

ATA25, Emergency Floats. If the task has operations which are not permitted by App viii, then the task cannot be carried out by a pilot- owner.

ATA 25, ELT. It is within the intent of POM for a pilot to be able to remove an item of equipment such as an ELT, so he can despatch the item for repair and/or testing. App viii does not permit a pilot-owner to carry out this testing.

ATA 30, Windshield wiper. If the task has operations which are not permitted by App viii, then the task cannot be carried out by a pilot- owner.

ATA 31, Pitot/Static systems. If the task has operations which are not permitted by App viii, then the task cannot be carried out by a pilot- owner. Why do we make a distinction between fixed wing and rotorcraft in this case?

ATA32, Landing Gear, Wheels. If the task has operations which are not permitted by App viii, then the task cannot be carried out by a pilot- owner. Also, there are very few wheeled helicopters in this category.

ATA 32, Landing Gear, Snow Landing Pads. If the task has operations which are not permitted by App viii, then the task cannot be carried out by a pilot- owner.

ATA 32, Landing Gear, Replenish brake fluids. Replenishment of fluids is within the intent of pilot-owner maintenance. A low fluid level is not necessarily indicative of a defect within the system which requires rectification.

ATA 32, Bleeding of brake units. If the task has operations which are not permitted by App viii, then the task cannot be carried out by a pilot- owner.

ATA 52, Removal/Installation of doors. If the task has operations which are not permitted by App viii, then the task cannot be carried out by a pilot- owner.

ATA 62, MR Blades. There are types within this category where removal of MR Blades can be done without special tools (for example AS350, EC120). If the task has operations which are not permitted by App viii, then the task cannot be carried out by a pilot- owner.

ATA 71, Powerplant, Engine cowling. If the task has operations which are not permitted by App viii, then the task cannot be carried out by a pilot- owner.

ATA 77, Engine oil. If the task has operations which are not permitted by App viii, then the task cannot be carried out by a pilot- owner.

comment 56

comment by: *Aircraft Engineers International (AEI)*

24	Electrical power
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Wiring – Repairing broken circuits [in landing light](#) and any other wiring for non critical equipment, excluding ignition system, primary generating system and required communication, navigation system and primary flight instruments.

Comment:

This must not be allowed.

Reason:

When repairs are carried out incorrectly this can have serious affect on safety, since landing lights are high current users the chance of a resulting fire is therefore very likely. Additionally these lights are often used in daylight to make the aircraft more conspicuous and thereby easier visible to others. The lights not working due to improper repairs would therefore also be a safety factor. Repairs when carried out properly need specialist tooling, the availability of which is unlikely in a "Pilot Owner maintenance environment", besides which the Pilot Owner would be very unlikely to possess the special knowledge on how to use these tools. Same as comment # 53, but for

	rotorcraft
response	<p><i>Accepted</i></p> <p>Repair of wiring requires crimping tools, which are subject to calibration, therefore their use is not appropriate for pilot-owners.</p> <p>Repair of wiring removed from App VIII.</p>
comment	<p>124 ❖ <span style="float: right;">comment by: <i>SITEMA – Sindicato dos Técnicos de Manutenção de Aeronaves</i></span></p> <p>SITEMA is tottally against this.</p> <p>JUSTIFICATION:</p> <p>Pilots (or for that matter any non-engineer person) messing with high voltage or high current circuits such as a landing light, is dangerous. A short in the circuit or a bad crimping (<u>to which the PO's are not likely to know how to work with or even have such a specific tool!</u>) will surely spark, melt wiring and catch fire, due to its current.</p>
response	<p><i>Partially accepted</i></p> <p>The item was already in the appendix VIII for the landing light system, it was modified to permit the task on others <u>non critical</u> systems whose incorrect performance will not drastically impact the safety.</p>
comment	<p>164 <span style="float: right;">comment by: <i>SITEMA – Sindicato dos Técnicos de Manutenção de Aeronaves</i></span></p> <p>SITEMA feels an exclusion should be made here:</p> <p>Where a <b>shielded/twisted/coaxial wiring</b> defect is present, its repair implies specific and usually complex tools to be used. The PO's are not likely to know how to work or even have such a specific tool.</p>
response	<p><i>Accepted</i></p> <p>Repair of wiring requires crimping tools, which are subject to calibration, therefore their use is not appropriate for pilot-owners.</p> <p>Repair of wiring removed from App VIII.</p>
comment	<p>175 <span style="float: right;">comment by: <i>FFVV</i></span></p> <p>On behalf of FFVV</p> <p>About Periodical inspections - Yearly inspection should be included in pilote maintenance tasks, if any specific task in the check list appears as out of a pilote competence, he may sub contract to an other pilot (or a mechanic) who get this required skilness, and then deliver the ARC which remains his responsibility</p>
response	<p><i>Not accepted</i></p>

If the task has operations which are not permitted by App VIII (basic principles), then the task cannot be carried out by a pilot-owner.

A pilot-owner may not issue an ARC.

comment

366

comment by: FFVV

ANNEXE VIII ata 24-25

On behalf of FFVV

Soldering for switch connexion is of common practice, using a soldering iron, then FFVV ask for deletion of "Replacement without soldering"

response

*Not accepted*

The working group considered soldering to be a special process, and outside the scope of pilot-owner maintenance (basic principles as described in appendix VIII).

comment

371

comment by: Eurocopter

General Comment:

The helicopters need to be operated every where out of the main base by the helicopter owner. The daily check is a task which can be performed by the helicopter owner in the compliance with the Flight Manual.

This rotorcraft task has to be integrated in the Appendix VIII – Part B

Proposed text  
ATA 12

AREA: Servicing

TASK: Daily operating checks including inspection associated with the flight of the day (Flight Related Check – VLV) not requiring special techniques or tooling.

Justification

Refer to extracts from Helicopter Flight Manual (enclosed Appendix 1)

response

*Not accepted*

Tasks contained within the Flight Manual are tasks which can be carried out by the pilot, and are therefore not pilot-owner maintenance requiring the issue of a certificate of release to service. App VIII (Basic Principles) refers specifically.

comment

372

comment by: Eurocopter

**General Comment:**

1/ Drainage within the pilot static system needs, for some type of helicopter, to implement specific process and tools.

The drainage tasks carried out with specific process and tool have to be excluded of the pilot owner authorization.

2/ Some worn brake pads are complex and need special techniques and/or tooling. These installations concern brake disk system

Proposed text

1/ ATA: 31

AREA: Instruments

TASK: Drainage – drainage of water drainage traps or filters within the pilot static system excluding blowing and drying processes and specific pressure power units & tools

2/ ATA: 32

AREA: Landing gears

TASK: Brakes – replacement of worn brake pads excluding disks

Justification

1/ Refer task card of the EC120 (enclosed Appendix 2).

2/ Some worn brake pads are complex and need special techniques and/or tooling

response *Not accepted*

1/ Pitot/Static System - If the task has operations which are not permitted by App VIII, then the task cannot be carried out by a pilot- owner.

2/ Brake Pads - If the task has operations which are not permitted by App VIII, then the task cannot be carried out by a pilot- owner.

Refer to basic principles of Appendix VIII itself before the lists themselves:

Task may not be carried out as pilot-owner maintenance in the case of:

- a need to use special tools, calibrated tools (except torque wrench) and/or;
- a need to use test equipments or special testing (e.g. NDT, system tests or operational checks for avionic equipment) and/or
- any unscheduled special inspections (e.g. heavy landing check).

comment 373

comment by: *Eurocopter*

General Comment:

Chip detector as magnetic detectors do not require specific techniques.

Proposed text



ATA: 63 / 65 / 72

AREA: Transmission & engine

TASK: Chips detectors – Remove, visual check, clean and replace the magnetic chip detector when self sealing type.

Justification

When the chip detector is self sealing one; the task does not require a specific means to remove it, to check, clean and replace it.

response

*Not accepted*

If the chip detector is an electrically indicating one, there is no need to remove it to check it for metal debris. If the indicator is indicating that there is a metal chip present, then this needs diagnosis which is outside the limits of pilot-owner maintenance.

comment

448

comment by: *Ludwig Hessler*

Specifically we would like to comment:  
Part B

ATA 62 Although this comment is not coming from a helicopter specialist, we find the privilege for a release of this work to be too lenient.

response

*Not accepted*

There are types within this category where removal of MR Blades can be done without special tools (for example AS350, EC120). If the task has operations which are not permitted by App VIII (basic principles), then the task cannot be carried out by a pilot-owner.

comment

452

comment by: *CAA-NL, SCI*

Use standard terminology, i.e. helicopters instead of rotorcraft.

response

*Not accepted*

Rotorcraft is intended to cover other types of rotary wing aircraft such as gyroplanes and tilt-rotors as well as helicopters.

comment

535

comment by: *SNMSAC Syndicat National des  
Mécaniciens Sol de l'Aviation Civile*

**NPA 2007-08**

**pages 65 & 66/144**

**ATA 24**

**Electrical Power**

Bonding Replacement of broken bonding cable excluding bonding on rotating parts and flying control.

*Comment:*

**NOT TO BE ALLOWED**Reason :

After a bonding wire replacement it is mandatory to check the continuity with a special accurate test tool, this is more required with composite aircraft to prevent electrostatic effect on inboard computer equipment or/and indicator.

response *Not accepted*

If the task has operations which are not permitted by App VIII (basic principles), then the task cannot be carried out by a pilot- owner.

comment

538

comment by: *SNMSAC Syndicat National des Mécaniciens Sol de l'Aviation Civile*

**NPA 2007-08**

**page 66/144**

**ATA 24**

Wiring Repairing broken circuits in landing light and any other wiring for non critical equipment, excluding .....

Comment:**NOT TO BE ALLOWED**Reason:

**Landing lights are not critical equipments but they are mandatory for landing on regulated airport to be seen from airport tower as well from other A/C. Therefore the wire gauge used for this type of electrical circuit need is of the size needed for big amperage consume equipment and for long period as landing approach.**

**The use of crimping tool under periodic checking are mandatory for all any wiring even if it is not on critical circuit equipment, a bad repair or re-install shall cause an electric fire.**

**THE WIRING SUBJECT IS COVERED BY NPA 2007-01 !**

response *Accepted*

Repair of wiring requires crimping tools, which are subject to calibration, therefore their use is not appropriate for pilot-owners according to the basic principles of Appendix VIII. Repair of wiring removed from the AMC to App VIII

**B. Draft Rules - II. Draft Opinion (EC) No 2042/2003 - Part M Appendix VIII C/Pilot Owner Maintenance Tasks for Sailplanes and Powered Sailplanes**

p. 67-71

comment 57

comment by: *Aircraft Engineers International (AEI)*

24 Electrical power

Batteries – Replacement and servicing, excluding servicing of Ni-Cd batteries and IFR operations.

Comment:

The green text has been omitted for sailplanes and powered sailplanes.

Reason:

It should be included because it is just as valid as for powered aircraft

response *Not accepted*

In General, sailplanes and powered sailplanes do not have powerful charging systems installed, therefore a thermal runaway is extreme improbable.

comment 58

comment by: *Aircraft Engineers International (AEI)*

24 Electrical power

Wiring – Repairing broken circuits in landing light and any other wiring for non critical equipment, excluding ignition system, primary generating system and required communication, navigation system and primary flight instruments.

Comment:

This must not be allowed.

Reason:

When repairs are carried out incorrectly this can have serious affect on safety, since landing lights are high current users the chance of a resulting fire is therefore very likely. Additionally these lights are often used in daylight to make the aircraft more conspicuous and thereby easier visible to others. The lights not working due to improper repairs would therefore also be a safety factor. Repairs when carried out properly need specialist tooling, the availability of which is unlikely in a "Pilot Owner maintenance environment", besides which the Pilot Owner would be very unlikely to possess the special knowledge on how to use these tools. The same as comment # 53, but for sailplanes and powered sailplanes.

response *Partially accepted*

Sailplanes and powered sailplanes are certified in accordance to CS22, which is capable for Day VFR use only. Some countries may have permitted limited night flights, but this very rare. The electrical systems in sailplanes and powered sailplanes are in general not as powerful as in airplanes and helicopters, simply by the matter that only limited electrical power recourses are available. It was standard practice that non critical, non required equipment is installed by the pilot owner. Up to now electrical fires in sailplanes or powered sailplanes are very rare.

This also includes soldering or crimping of wire connections in such systems, if described in the instructions for continuing airworthiness.

As long as the equipment is not a required equipment (defined in the AFM) it is clear that this is POM. It was agreed that the wording installation may be misleading regarding the installation approval requirements in part 21, which are unchanged, also for the installation of standard parts.

New sailplane designs with electrical powered engines are in general excluded,

because this is a required system and does contain high currents.

comment 59

comment by: *Aircraft Engineers International (AEI)*

26	Fire Protection	Fire Warning – Replacement of sensors and indicators.
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Comment:

This must not be allowed

Reason:

If fire warning systems do not work this could lead to a fire developing undetected to such a stage that it is impossible to extinguish or take other emergency measures. Same as for comment # 54, but for sailplanes and powered sailplanes.

response *Not accepted*

Fire Warning Systems for powered sailplanes are installed in a very limited number of types. These systems are not comparable with common systems used on turbine powered aircraft. They consist of simple temperature sensors. Warnings are simple lamps. The replacement of these sensors or indicators is simple and does not affect the safety in a matter that a pilot-owner cannot replace it.

comment 60

comment by: *Aircraft Engineers International (AEI)*

71	Power Plant
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Removal or installation of power plant unit including engine and propeller <u>provided simple removal and installation is by design.</u>
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Comment:

Add text in green

Reason:

To ensure that only simple installations may be removed/installed with by the Pilot Owner as described in the Flight Manual.

response *Not accepted*

The definition of TM (Touring Motorglider) is in JAR-FCL. CS22, the Certification specification for sailplanes and powered sailplanes does differ between TM and SLPS. It is understood that this definition is not harmonized, but for the maintenance side CS22 is the valid document and only this definitions shall be used.

For a SSPS a failure of the engine cannot lead to an unsafe condition. The Known SSPS designs are simple (most does not have an power control) and include instructions for installation of the power plant.

On the other hand also some SLPS include the same simple methods but they are not included into the POM list because a failure of the power plant may lead to an unsafe condition.

Some special designs (TOP engine) are available where the pilot can by simple means mount and dismount the power plant. If the designer/manufacture decides and certifies this procedure as part of the AFM (such as glider assembly) then it can still be carried out by the pilot. This is then not a maintenance as defined by part M, the responsibility for clear AFM instructions according to CS22 is then at the TC-Holder.

comment

124 ❖

comment by: *SITEMA – Sindicato dos Técnicos de Manutenção de Aeronaves*

SITEMA is totally against this.

## JUSTIFICATION:

Pilots (or for that matter any non-engineer person) messing with high voltage or high current circuits such as a landing light, is dangerous. A short in the circuit or a bad crimping (to which the PO's are not likely to know how to work with or even have such a specific tool) will surely spark, melt wiring and catch fire, due to its current.

response

*Partially accepted*

Sailplanes and powered sailplanes are certified in accordance to CS22, which is capable for Day VFR use only. Some countries may have permitted limited night flights, but this is very rare. The electrical systems in sailplanes and powered sailplanes are in general not as powerful as in airplanes and helicopters, simply by the matter that only limited electrical power resources are available. It was standard practice that non critical, non required equipment is installed by the pilot owner. Up to now electrical fires in sailplanes or powered sailplanes are very rare.

This also includes soldering or crimping of wire connections in such systems, if described in the instructions for continuing airworthiness.

As long as the equipment is not a required equipment (defined in the AFM) it is clear that this is POM. It was agreed that the wording installation may be misleading regarding the installation approval requirements in part 21, which are unchanged, also for the installation of standard parts.

New sailplane designs with electrical powered engines are in general excluded, because this is a required system and does contain high currents.

comment

125 ❖

comment by: *SITEMA – Sindicato dos Técnicos de Manutenção de Aeronaves*

SITEMA is totally against this.

## JUSTIFICATION:

Oxygen bottles are real "bombs waiting to explode" if not handled with extreme care, characteristic only of certifying (Part-66) staff.

response

*Not accepted*

Oxygen systems for gliders are designed in a way that the mountings for bottles do not require special tools or knowledge. The oxygen systems for modern gliders are not fixed type installations as for common airplanes, they are comparable to removable medical oxygen bottles/systems used on transport category airplanes and they are also removable by the crew. Oxygen connections for the mask are using quick type connectors which do not need special equipment.

comment

126 ❖

comment by: *SITEMA – Sindicato dos Técnicos de Manutenção de Aeronaves*

SITEMA is tottally against this.

**JUSTIFICATION:**

There is no knowledge of self sealing couplings on fuel lines. Even if there was such, the self sealing coupling would have to be built with sealing systems such as inner cylinders/o-rings, which are not visible to the pilot and therefore requires a high level of technical knowledge, not available to pilots.

Also, when cleaning/replacing a fuel filter (which can be of a considerable complexity), if metallic debris are found, there is no certainty the PO's will look at it from a safety side, due to not having enough technical training to recognize those situations.

response

*Not accepted*

Rejected (fuel lines)

The replacement of prefabricated fuel lines is a task that is already in the existing Appendix. The NPA review group does not felt comfortable with this Item, because it does not fit into the concept that a pilot owner task should not directly related to flight safety.

On the other hand, there are designs, especially some powered sailplanes were self sealing couplings are used, because the completely power plant can be removed and the powered sailplane can be operated as a sailplane (TOP engine system). Therefore the NPA limits this task to such systems. The couplings do not need any type of tool.

Rejected (fuel filter)

The replacement and cleaning of fuel filter is a task that is already in the existing Appendix. Safety provisions have been added into the basic principles, that only simple visual inspections are accepted as pilot-owner maintenance. Any interpretation of debris needs therefore a qualified mechanic. Engines on self sustain airplanes do not create a safety hazard if not working properly.

comment

136

comment by: *FFVV*

On behalf of FFVV

Appendix VIII

General

Pilot owner maintenance tasks includes achievement of periodical inspections

required by the manufacturer, (100 H) yearly inspection -

Specific matters :

Skids

Some gliders are not fit with wing or tail skids (ex: Schempp Hirth Janus, libelle..) They are equipped with small wheels (sometimes with inflatable inner tube of tyre) then removal or re-installation and servicing of these devices must be included in the scope of pilot owner maintenance tasks

Windows

Repairs of small cracks, fissures, by usual manufacturer (ex. Plexiglass) repair procedure.

response

*Not accepted*

Rejected (General)

It was not the intention of Annex VIII (or its annex) to provide a general inspection such as 100 Hrs Inspection because this is very different from type to type. This does not prevent that on certain types, the 100 Hrs inspection can be carried out within the frame of the Pilot Owner Maintenance, as long as any task is listed in the AMC to Appendix VIII.

Rejected (skids)

This item is already included into ATA 32 as "Wheels". This means that any wheels, including wing and tail wheels are subject to POM.

Rejected (Windows)

Minor approved repairs are already part of the POM Annex, any other repair need special tools and processes and does not fit into the Pilot Owner maintenance concept.

comment

152

comment by: *Helge Hald, Director*

Electrical power: Replacement of switches is only permitted without soldering.

As general a pilot owner should convince himself if he is competent to do the present task. If so, soldering switches by replacement should be considered as a simple pilot owner maintenance task on gliders.

response

*Partially accepted*

Sailplanes and powered sailplanes are certified in accordance to CS22, which is capable for Day VFR use only. Some countries may have permitted limited night flights, but this is very rare. The electrical systems in sailplanes and powered sailplanes are in general not as powerful as in airplanes and helicopters, simply by the matter that only limited electrical power recourses are available. It was standard practice that non critical, non required equipment is installed by the pilot owner. Up to now electrical fires in sailplanes or powered sailplanes are very rare.

This also includes soldering or crimping of wire connections in such systems, if

described in the instructions for continuing airworthiness.

As long as the equipment is not a required equipment (defined in the AFM) it is clear that this is POM. It was agreed that the wording installation may be misleading regarding the installation approval requirements in part 21, which are unchanged, also for the installation of standard parts.

New sailplane designs with electrical powered engines are in general excluded, because this is a required system and does contain high currents.

comment

153

comment by: *Helge Hald, Director*

Removal and installation of power plant and propeller is not allowed on a SLPS, which is not logic. It is usually a simple task, and in case of competition often done. And again - the pilot owner should be familiar with the tasks done under this provision.

Accordingly minor adjustments of non-flight or propulsion controls whose operation is not critical for any phase of flight on a SLPS should be considered as pilot owner maintenance.

We agree that in case of TM those tasks should not be a pilot owner maintenance task.

response

*Not accepted*

The definition of TM (Touring Motorglider) is in JAR-FCL. CS22, the Certification specification for sailplanes and powered sailplanes does differ between TM and SLPS. It is understood that this definition is not harmonized, but for the maintenance side CS22 is the valid document and only this definitions shall be used.

For a SSPS a failure of the engine cannot lead to an unsafe condition. The Known SSPS designs are simple (most does not have an power control) and include instructions for installation of the power plant.

On the other hand also some SLPS include the same simple methods but the are not included into the POM list because a failure of the power plant may lead to an unsafe condition.

Some special designs (TOP engine) are available were the pilot can by simple means mount and dismount the power plant. If the designer/manufacture decides and certifies this procedure as part of the AFM (such as glider assembly) than it can still be carried out by the pilot. This is than not an maintenance as defined by part M, the responsibility for clear AFM instructions according to CS22 is than at the TC-Holder.

comment

155 ❖

comment by: *SITEMA – Sindicato dos Técnicos de Manutenção de Aeronaves*

SITEMA is tottally against this.

#### JUSTIFICATION

If a leak is present in a system, it will vary geometrically with higher altitudes. Therefore, a small leak at 1000 feet can become a big leak at 10000 feet. PO's are not trained to test every possibility as Part-66 certifying staff are, therefore they can tend to ignore small leaks. This can lead to the danger of collision



	<p>situations in air.</p> <p>Also, due to lack of correct training, PO's can tend to identify false situations of leaks if a problem arises with an adapter.</p>	
response	<i>Not accepted</i>	<p>Sailplanes and powered sailplanes are not high performance machines. They usually operating at low speed and the cabin is unpressurized. It is in general agreed that a leak is a matter of pressure difference, but this is not valid for altimeters in unpressurized airplanes where the difference is small. CS22 at all does not require an static system calibration, only an pitot-static system error determination this indicate that for altimeter indications the installation error is not critical. Practically, the airspeed indication is the most sensitive instrument regarding pressure failures such as leaks; it is uncommon that such a failure happens on sailplanes, because there are only simple tube connections. Airspeed indication failure is part of the sailplane training, reason is that it happens that these simple systems sometimes blocked by insects, sailplanes often stored and operated outside near grass.</p> <p>Replacement of damaged flexible tubes is only included in the POM for sailplanes. and not for self launching powered sailplanes, that means any leak must be rectified by an licenced mechanic</p>
comment	161	<p>comment by: <i>SITEMA – Sindicato dos Técnicos de Manutenção de Aeronaves</i></p> <p>SITEMA feels an exclusion should be made here:</p> <p>Where a <b>shielded/twisted/coaxial wiring</b> defect is present, its repair implies specific and usually complex tools to be used. The PO's are not likely to know how to work or even have such a specific tool.</p>
response	<i>Not accepted</i>	<p>Any required communication, navigation and primary flight instrument is not subject to POM.</p>
comment	162	<p>comment by: <i>SITEMA – Sindicato dos Técnicos de Manutenção de Aeronaves</i></p> <p>SITEMA feels the sentence is incomplete:</p> <p>PROPOSED TEXT: Batteries and solar panels - Replacement and servicing, <b><u>excluding servicing of Ni-Cd batteries and IFR operations.</u></b></p>
response	<i>Not accepted</i>	<p>In general, sailplanes and powered sailplanes do not have powerful charging systems installed, therefore a thermal runaway is extreme improbable.</p> <p>(same as comment 24)</p>
comment	163	<p>comment by: <i>SITEMA – Sindicato dos Técnicos</i></p>

*de Manutenção de Aeronaves*

SITEMA feels the sentence is incomplete.

PROPOSED TEXT:

Switches - Replacement without soldering or crimping.

The PO's are not likely to know how to work with, or even have, the specific tools required for the repair.

response *Partially accepted*

Sailplanes and powered sailplanes are certified in accordance to CS22, which is capable for Day VFR use only. Some countries may have permitted limited night flights, but this very rare. The electrical systems in sailplanes and powered sailplanes are in general not as powerful as in airplanes and helicopters, simply by the matter that only limited electrical power recourses are available. It was standard practice that non critical, non required equipment is installed by the pilot owner. Up to now electrical fires in sailplanes or powered sailplanes are very rare.

This also includes soldering or crimping of wire connections in such systems, if described in the instructions for continuing airworthiness.

As long as the equipment is not a required equipment (defined in the AFM) it is clear that this is POM. It was agreed that the wording installation may be misleading regarding the installation approval requirements in part 21, which are unchanged, also for the installation of standard parts.

New sailplane designs with electrical powered engines are in general excluded, because this is a required system and does contain high currents.

comment

165

comment by: *SITEMA – Sindicato dos Técnicos de Manutenção de Aeronaves*

SITEMA feels an exclusion must be made here:

Removal or installation of power plant unit including engine and propeller [provided simple removal and installation is by design](#)

JUSTIFICATION:

To ensure that only simple installations may be removed/installed with by the Pilot Owner as described in the Flight Manual.

response *Not accepted*

The definition of TM (Touring Motorglider) is in JAR-FCL. CS22, the Certification specification for sailplanes and powered sailplanes does differ between TM and SLPS. It is understood that this definition is not harmonized, but for the maintenance side CS22 is the valid document and only this definitions shall be used.

For a SSPS a failure of the engine cannot lead to an unsafe condition. The Known SSPS designs are simple (most does not have an power control) and include instructions for installation of the power plant.

On the other hand also some SLPS include the same simple methods but the are not included into the POM list because a failure of the power plant may

lead to an unsafe condition.

Some special designs (TOP engine) are available were the pilot can by simple means mount and dismount the power plant. If the designer/manufacturer decides and certifies this procedure as part of the AFM (such as glider assembly) than it can still be carried out by the pilot. This is than not an maintenance as defined by part M, the responsibility for clear AFM instructions according to CS22 is than at the TC-Holder.

comment

222

comment by: BGA

ATA 24:

Wiring installation is allowed except for communications and navigation, etc. A GPS system included in a gliding flight computer may be interpreted as a navigation system. The text should be amended as follows;

"Wiring - Installation of simple wiring connections to the existing wiring for additional equipment such as electric variometers, flight computers but excluding required communication, navigation systems and engine wiring."

ATA 25 and ATA 24

Regarding the terms 'required' and 'essential' instruments/equipment a reference should be made to M.A.501 (c) re standard parts for clarification.

The use of a soldering iron is common practice in many aspects of engineering and maintenance and should not be considered as using special tools.

response

*Partially accepted*

Sailplanes and powered sailplanes are certified in accordance to CS22, which is capable for Day VFR use only. Some countries may have permitted limited night flights, but this very rare. The electrical systems in sailplanes and powered sailplanes are in general not as powerful as in airplanes and helicopters, simply by the matter that only limited electrical power recourses are available. It was standard practice that non critical, non required equipment is installed by the pilot owner. Up to now electrical fires in sailplanes or powered sailplanes are very rare.

This also includes soldering or crimping of wire connections in such systems, if described in the instructions for continuing airworthiness.

As long as the equipment is not a required equipment (defined in the AFM) it is clear that this is POM. It was agreed that the wording installation may be misleading regarding the installation approval requirements in part 21, which are unchanged, also for the installation of standard parts.

New sailplane designs with electrical powered engines are in general excluded, because this is a required system and does contain high currents.

comment

249

comment by: SFVS

ATA 24:

The regulation should be changed to:

Wiring -Installation of simple wiring connections to the existing wiring for additional equipment such as electric variometers and flight computers, but excluding communication, navigationsystems and engine wiring.

Switches:

Delete "Replacement without soldering" and add "Replacement".

response *Partially accepted*

Sailplanes and powered sailplanes are certified in accordance to CS22, which is capable for Day VFR use only. Some countries may have permitted limited night flights, but this very rare. The electrical systems in sailplanes and powered sailplanes are in general not as powerful as in airplanes and helicopters, simply by the matter that only limited electrical power recourses are available. It was standard practice that non critical, non required equipment is installed by the pilot owner. Up to now electrical fires in sailplanes or powered sailplanes are very rare.

This also includes soldering or crimping of wire connections in such systems, if described in the instructions for continuing airworthiness.

As long as the equipment is not a required equipment (defined in the AFM) it is clear that this is POM. It was agreed that the wording installation may be misleading regarding the installation approval requirements in part 21, which are unchanged, also for the installation of standard parts.

New sailplane designs with electrical powered engines are in general excluded, because this is a required system and does contain high currents

comment 263

comment by: René Meier

ATA 24

Change to: Switches replacement.

ATA 33

Add also lights as possible installations in "sp" and in "ssps", we propose to introduce "yes" for both.

response *Partially accepted*

Sailplanes and powered sailplanes are certified in accordance to CS22, which is capable for Day VFR use only. Some countries may have permitted limited night flights, but this very rare. The electrical systems in sailplanes and powered sailplanes are in general not as powerful as in airplanes and helicopters, simply by the matter that only limited electrical power recourses are available. It was standard practice that non critical, non required equipment is installed by the pilot owner. Up to now electrical fires in sailplanes or powered sailplanes are very rare.

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New sailplane designs with electrical powered engines are in general excluded, because this is a required system and does contain high currents.

comment	276 <span style="float: right;">comment by: <i>British Gliding Association</i></span>
	<p>Pilot/Owner Maintenance – Item 51 – Page 70</p> <p>Comment Text</p> <p>For SAILPLANES and POWERED SAILPLANES - Item 51 should include:</p> <p>Surface finish: The reparation of non-structural paint finishes, protective coatings and surface coatings (specifically gel coats of composite and Fibre Reinforced Plastic (FRP) constructions) including minor removal of gelcoat or paint/lacquer coating and their reparation</p>
response	<p><i>Accepted</i></p> <p>It has been modified for all structural materials such as wood, metal or composite.</p>
comment	361 <span style="float: right;">comment by: <i>Norwegian Air Sports Federation, Gliding Section</i></span>
	<p><b>Appendix VIII Limited Pilot Owner Maintenance</b></p> <p><b>Part C Pilot Owner Maintenance Tasks for Sailplanes and Powered Sailplanes</b></p> <p><i>Page 70, ATA no. 51 "Structure":</i></p> <p>We suggest to add:</p> <p>For sailplanes in Fibre Reinforced Plastic (FRP) construction: Minor removal of gelcoat or paint/lacquer coating and restoration of such coating, which does not affect the underlying FRP structure.</p>
response	<p><i>Accepted</i></p> <p>It has been modified for all structural materials such as wood, metal or composite.</p>
comment	442 <span style="float: right;">comment by: <i>Ludwig Hessler</i></span>
	<p>Appendix VIII Part C</p> <p>PROPOSED TEXT/ COMMENT: block 24 Electrical power: Wiring... Who will check the capacity of the electrical system or must be maintenance data available?.</p> <p>JUSTIFICATION: block 24: The wiring system is different in each aircraft.</p>
response	<p><i>Noted</i></p> <p>Part 21 is unchanged and it is a basic principle that maintenance data must be available. This is already mentioned in the basic principles. It is known that Maintenance manuals and maintenance data such as at the aircraft log is not so</p>

detailed as for aircraft, but the criticality of the electrical system is also not as critical as for aircraft. On the other hand it is a basic principle that pilots should self-assess their own capabilities. If he is not competent to carry out the task, then he cannot be qualified for "pilot owner maintenance"

comment

449

comment by: *Ludwig Hessler*

Specifically we would like to comment:

Part C

ATA 25 Equipment: All instruments may be replaced. No limitations!

ATA 51 Structure, see Part A for the same point

ATA 52 Doors. May be left out. There are hardly any types in this category with doors (exception G 109)

ATA 56 Windows: No limitations.

ATA 71 approval also for SLPS

ATA 76 approval also for SLPS

response

*Not accepted*

ATA 25

It is a POM principle that the task must not create an hazard, this automatically excludes some Equipment

ATA 51 see part A

ATA 52

If there are some, than it makes sense to include it

ATA 56 see ATA 25

Visibility is a critical task

ATA 71, 76

The definition of TM (Touring Motorglider) is in JAR-FCL. CS22, the Certification specification for sailplanes and powered sailplanes does differ between TM and SLPS. It is understood that this definition is not harmonized, but for the maintenance side CS22 is the valid document and only this definitions shall be used.

For a SSPS a failure of the engine cannot lead to an unsafe condition. The Known SSPS designs are simple (most does not have an power control) and include instructions for installation of the power plant.

On the other hand also some SLPS include the same simple methods but the are not included into the POM list because a failure of the power plant may lead to an unsafe condition.

Some special designs (TOP engine) are available were the pilot can by simple means mount and dismount the power plant. If the designer/manufacture decides and certifies this procedure as part of the AFM (such as glider assembly) than it can still be carried out by the pilot. This is than not an maintenance as defined by part M, the responsibility for clear AFM instructions

according to CS22 is than at the TC-Holder.

comment 454 comment by: CAA-NL, SCI

Use standard terminology, i.e. gliders instead of sailplanes.

response *Not accepted*

Sailplane and powered sailplane is the standard terminology of Certification specification CS22.

comment 485 comment by: Deutscher Aero Club e.V. (DAeC)

ATA 24:

Wiring installation is allowed except for COMMS, NAV and ENG. A GPS system included into a flight computer may be regarded as a NAV system. The regulation should read:

"Wiring - Installation of simple wiring connections to the existing wiring for additional equipment such as electric variometers, flight computers but excluding **required** communication, navigation systems and engine wiring."

ATA 25 and ATA 24

Regarding the terms 'required' and 'essential' instruments/equipment reference should be made to AMC M.A.501 (c) [Standard Parts] for clarification. See also Agency Decision No 2006/14/R.

Switches: Delete "Replacement without soldering". The use of a soldering iron is common practice and should not be considered as using special tools.

response *Partially accepted*

Sailplanes and powered sailplanes are certified in accordance with CS22, which is capable for dsy VFR use only. Some countries may have permitted limited night flights, but this is very rare. The electrical systems in sailplanes and powered sailplanes are in general not as powerful as in airplanes and helicopters, simply by the matter that only limited electrical power ressourses are available. It was standard practice that non critical, non required equipment is installed by the pilot owner. Up to now electrical fires in sailplanes or powered sailplanes are very rare.

This also includes soldering or crimping of wire connections in such systems, if described in the instructions for continuing airworthiness.

As long as the equipment is not a required equipment (defined in the AFM) it is clear that it is qualified for Pilot Owner Maintenance. It was agreed that the wording "installation" may be misleading regarding the installation.

New sailplane designs with electrical powered engines are in general excluded, because this is a required system and does contain high currents.

comment 509 comment by: European Gliding Union (EGU)

ATA 24:

Wiring installation is allowed except for COMMS, NAV and ENG. A GPS system included into a flight computer may be regarded as a NAV system. The regulation should read:

"Wiring - Installation of simple wiring connections to the existing wiring for additional equipment such as electric variometers, flight computers but

excluding required communication, navigation systems and engine wiring.”

ATA 25 and ATA 24

Regarding the terms 'required' and 'essential' instruments/equipment reference should be made to AMC M.A.501 (c) [Standard Parts] for clarification. See also Agency Decision No 2006/14/R.

Switches: Delete "Replacement without soldering". The use of a sol-dering iron is common practice and should not be considered as using special tools.

response *Partially accepted*

Sailplanes and powered sailplanes are certified in accordance with CS22, which is capable for dsy VFR use only. Some countries may have permitted limited night flights, but this is very rare. The electrical systems in sailplanes and powered sailplanes are in general not as powerful as in airplanes and helicopters, simply by the matter that only limited electrical power ressourses are available. It was standard practice that non critical, non required equipment is installed by the pilot owner. Up to now electrical fires in sailplanes or powered sailplanes are very rare.

This also includes soldering or crimping of wire connections in such systems, if described in the instructions for continuing airworthiness.

As long as the equipment is not a required equipment (defined in the AFM) it is clear that it is qualified for Pilot Owner Maintenance. It was agreed that the wording "installation" may be misleading regarding the installation.

New sailplane designs with electrical powered engines are in general excluded, because this is a required system and does contain high currents.

comment

540

comment by: *SNMSAC Syndicat National des Mécaniciens Sol de l'Aviation Civile*

**page 68/144**  
**ATA 24**  
**Electrical Power**

## **Wiring**

**Wiring - Installation of simple wring connections to the existing wiring**

.....

Comment:

**NOT TO BE ALLOWED**

Reason:

**The use of crimping tool under periodic checking are mandatory for all any wiring even if it is not on critical circuit equipment, a bad repair or re-install shall cause an electric fire.**

**Adding of wiring shall cause an overload electric power if this modification is not under B2 control.**

**THE WIRING SUBJECT IS COVERED BY NPA 2007-01 !**

response *Partially accepted*

Sailplanes and powered sailplanes are certified in accordance with CS22, which



is capable for dsy VFR use only. Some countries may have permitted limited night flights, but this is very rare. The electrical systems in sailplanes and powered sailplanes are in general not as powerful as in airplanes and helicopters, simply by the matter that only limited electrical power ressources are available. It was standard practice that non critical, non required equipment is installed by the pilot owner. Up to now electrical fires in sailplanes or powered sailplanes are very rare.

This also includes soldering or crimping of wire connections in such systems, if described in the instructions for continuing airworthiness.

As long as the equipment is not a required equipment (defined in the AFM) it is clear that it is qualified for Pilot Owner Maintenance. It was agreed that the wording "installation" may be misleading regarding the installation.

New sailplane designs with electrical powered engines are in general excluded, because this is a required system and does contain high currents.

comment

541

comment by: SNMSAC Syndicat National des  
Mécaniciens Sol de l'Aviation Civile

**page 68/144**  
**ATA 24**  
**Electrical Power**

## **Wiring**

**Repairing broken circuits in landing light and any other wiring for non critical equipment.....**

Comment:

**NOT TO BE ALLOWED**

Reason:

**Landing lights are not critical equipments but they are mandatory for landing on regulated airport to be seen from airport tower as well from other A/C. Therefore the wire gauge used for this type of electrical circuit need is of the size needed for big amperage consume equipment and for long period as landing approach.**

**The use of crimping tool under periodic checking are mandatory for all any wiring even if it is not on critical circuit equipment, a bad repair or re-install shall cause an electric fire.**

**THE WIRING SUBJECT IS COVERED BY NPA 2007-01 !**

response

*Partially accepted*

Sailplanes and powered sailplanes are certified in accordance with CS22, which is capable for dsy VFR use only. Some countries may have permitted limited night flights, but this is very rare. The electrical systems in sailplanes and powered sailplanes are in general not as powerful as in airplanes and helicopters, simply by the matter that only limited electrical power ressources are available. It was standard practice that non critical, non required

equipment is installed by the pilot owner. Up to now electrical fires in sailplanes or powered sailplanes are very rare.

This also includes soldering or crimping of wire connections in such systems, if described in the instructions for continuing airworthiness.

As long as the equipment is not a required equipment (defined in the AFM) it is clear that it is qualified for Pilot Owner Maintenance. It was agreed that the wording "installation" may be misleading regarding the installation.

New sailplane designs with electrical powered engines are in general excluded, because this is a required system and does contain high currents.

comment

542

comment by: *SNMSAC Syndicat National des Mécaniciens Sol de l'Aviation Civile***NPA 2007-08****page 68/144****ATA 24****Electrical Power**

Bonding Replacement of broken bonding cable excluding bonding on rotating parts and flying control.

Comment:**NOT TO BE ALLOWED**Reason :

After a bonding wire replacement it is mandatory to check the continuity with a special accurate test tool, this is more required with composite aircraft to prevent electrostatic effect on inboard computer equipment or/and indicator.

response

*Not accepted*

Bonding on sailplanes is generally not as critical as on aircraft or helicopters. Certification for sailplanes does not require such provisions regarding lightning or HIRF (high intensity radio fields), additionally Sailplanes and powered sailplanes are certified in accordance to CS22, which is capable for Day VFR use only. Some countries may have permitted limited night flights, but this very rare.

comment

547

comment by: *Graham Lambert*

25 - Removal of non-essential instruments such as variors or flight computers can entail the removal of pressure tubing leading to essential instruments. Gliders use a colour coded scheme for the tubing that assists the correct replacment of the tubing at the relevant instrument orifice. It would therefore be possible to correctly remove and replace essential instruments with as much risk of error as a quick release. Other maintenance tasks identified in this list are of a more complex nature, requiring the orderly removal and reassembly of components, and yet are allowed. I have the personal experience of a speed indicator being removed by a maintenance organisation and not replaced because they could not remember the glider it was removed from. I fitted the instrument later when it was returned. The risk of incorrectly removing water from the pressure tubing can damage instruments and yet this maintenance task is allowed. I feel then that these tasks should be based on the pilot being

	suitably self informed and competent.
response	<i>Accepted</i> The content of the comment is accepted, this is already included in ATA Chapter 31 instruments

comment	624 <span style="float: right;">comment by: <i>DSvU</i></span> Electrical power: Replacement of switches in a glider should be permitted even if soldering is required.  A pilot owner may not do any task in which he is not familiar. If he is familiar with soldering, which is the case for most gliderpilots, soldering switches by replacement should be considered as a simple pilot owner maintenance task on gliders. On a SLPS removal and installation of power plant and propeller is not allowed. We find this is not logic. As it usually is a simple task, well described in manuals, and in case of competition often done it should be allowed. The pilot owner of course should be familiar with the tasks done under this provision as with any other task performed as pilot owner maintenance.  Minor adjustments of non-flight or propulsion controls, whose operation is not critical for any phase of flight on a SLPS should be considered as pilot owner maintenance as well.  In case of TM those tasks should not be a pilot owner maintenance task.
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response	<i>Partially accepted</i> Sailplanes and powered sailplanes are certified in accordance with CS22, which is capable for dsy VFR use only. Some countries may have permitted limited night flights, but this is very rare. The electrical systems in sailplanes and powered sailplanes are in general not as powerful as in airplanes and helicopters, simply by the matter that only limited electrical power ressources are available. It was standard practice that non critical, non required equipment is installed by the pilot owner. Up to now electrical fires in sailplanes or powered sailplanes are very rare.  This also includes soldering or crimping of wire connections in such systems, if described in the instructions for continuing airworthiness.  As long as the equipment is not a required equipment (defined in the AFM) it is clear that it is qualified for Pilot Owner Maintenance. It was agreed that the wording "installation" may be misleading regarding the installation.  New sailplane designs with electrical powered engines are in general excluded, because this is a required system and does contain high currents.
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comment	640 <span style="float: right;">comment by: <i>DTruempi</i></span>  Generally: This listenig of pilot owner maint. task is a bit exxagerated. App. VII "complexe maintenance task" is listening the tasks who have to be accomplish by certificated organisations. So it is not necessary to listen the "allowed" Task für a pilot. He is responsible for the maintenance and airworthiness oh his aircraft. He has to respect the regaulations. But this
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	detailed list with the allowed task seems to me overregulated.
response	<p><i>Partially accepted</i></p> <p>It was a general request for this NPA to detail current Appendix VIII, due to missing informations.</p> <p>Appendix VIII is intended to clarify which tasks can be performed by a Pilot and which tasks can be only carried out by part 66 personal or approved maintenance organisations.</p> <p>Appendix VII lists the complex tasks that can be only performed by approved maintenance organisations</p>

<p><b>B. Draft Rules - II. Draft Opinion (EC) No 2042/2003 - Part M Appendix VIII D/Pilot Owner Maintenance Tasks for Balloons/Airships</b></p>	<p>p. 72-73</p>
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comment	<p>23</p> <p style="text-align: right;">comment by: <i>John DAVIES</i></p> <p>b) Burner- Add an additional paragraph to allow the adjustment of burner valves to ensure that they shut off correctly. Description- Some valves, mainly for pilot light and quiet burner have a rubber seat which compresses over time allowing a small leakage of gas when the valve is in the "off" position. This is rectified by loosening the locking mechanism and adjusting the seat position with a screwdriver.</p> <p>Suggested text-</p> <p>13) Burner Valves - adjustment of valve closing not requiring special tools</p> <p>Justification: This is a simple task using simple hand tools. If this is not included it will encourage pilots to fly with, for example, a pilot light that cannot be extinguished on landing which could create a fire hazard.</p>
response	<p><i>Accepted</i></p> <p>Item added to the list</p>

comment	<p>61</p> <p style="text-align: right;">comment by: <i>Aircraft Engineers International (AEI)</i></p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>26-Power plant - Removal or installation of power plant unit including engine and propeller <u>provided simple removal and installation is by design</u></p> </div> <p>Comment: Add text in green</p> <p>Reason: To ensure that only simple installations may be removed/installed with by the Pilot Owner as described in the Flight Manual. Same as comment # 60, but for Balloons/Airships.</p>
response	<p><i>Not accepted</i></p> <p>It is felt that this additional sentence is not required due to the simplistic design of hot airship.</p>

comment	<p>165 ❖ comment by: <i>SITEMA – Sindicato dos Técnicos de Manutenção de Aeronaves</i></p> <p>SITEMA feels an exclusion must be made here: Removal or installation of power plant unit including engine and propeller <u>provided simple removal and installation is by design</u></p> <p>JUSTIFICATION: To ensure that only simple installations may be removed/installed with by the Pilot Owner as described in the Flight Manual.</p>
response	<p><i>Not accepted</i></p> <p>It is felt that this additional sentence is not required due to the simplistic design of hot airship.</p>

comment	<p>287 comment by: <i>Walter Gessky</i></p> <p><b>1) Appendix II Limited Pilot Owner Maintenance, Part D / PILOT OWNER MAINTENANCE TASKS for BALLOONS / AIRSHIPS</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Area and Task</th> <th style="text-align: center;">Hot Air Airship</th> <th style="text-align: center;">Hot Air Balloon</th> <th style="text-align: center;">Gas Balloon</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">-</td> </tr> <tr> <td colspan="4"><b>B) BURNER</b></td> </tr> <tr> <td>9- Burner-cleaning and lubrication</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;"><del>No</del>-N/A</td> </tr> <tr> <td>10-Piezo igniters-adjustment.</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;"><del>No</del>-N/A -</td> </tr> <tr> <td>11-Burner jets-cleaning and replacement.</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;"><del>No</del>-N/A -</td> </tr> <tr> <td>12-Burner frame corner buffers-replacement or reinstallation.</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;"><del>No</del>-N/A -</td> </tr> </tbody> </table> <p><b>Justification: Editorial, no burners are installed in gas balloons</b></p>	Area and Task	Hot Air Airship	Hot Air Balloon	Gas Balloon				-	<b>B) BURNER</b>				9- Burner-cleaning and lubrication	Yes	Yes	<del>No</del> -N/A	10-Piezo igniters-adjustment.	Yes	Yes	<del>No</del> -N/A -	11-Burner jets-cleaning and replacement.	Yes	Yes	<del>No</del> -N/A -	12-Burner frame corner buffers-replacement or reinstallation.	Yes	Yes	<del>No</del> -N/A -
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response	<p><i>Accepted</i></p> <p>The table has been adapted</p>																												

comment	<p>375</p> <p style="text-align: right;">comment by: UK CAA</p> <p><b>Appendix VIII Part D introduction on page 72</b></p> <p>Comment:</p> <p>The text defining complex tasks should be moved from Appendix VIII Part D to Appendix VII 'Complex Maintenance Tasks'.</p> <p>Justification:</p> <p>Clarity and to ensure complex tasks are identified in a single place within the regulation</p> <p>Proposed Text:</p> <p><b>Appendix VII Complex Maintenance tasks</b></p> <p>4. For hot air airships, hot air balloons and gas balloons:</p> <p>In addition to the basic principles above a complex task is considered as any maintenance or repair to the envelope or to the basket primary suspension system that requires the re-manufacture of any joint and/or component. Any repair carried out to the envelope cannot include the repair or replacement of load tapes. Welding to the basket frame or burner frame or repairs to the pressure lines of the burners or fuel cylinders are also prohibited.</p>
response	<p><i>Partially accepted</i></p> <p>The mentioned tasks are against the basic principles described in Appendix VIII. Therefore they are not eligible for Pilot-Owner maintenance and is outside of the Term of reference for M-005.</p>
comment	<p>444</p> <p style="text-align: right;">comment by: Ludwig Hessler</p> <p>Appendix VIII Part D</p> <p>Proposed Text/ Comment:</p> <ul style="list-style-type: none"> <li>- general : ...repairs of pressures lines...,</li> <li>- "N/A" instead of "No" in the column "Gas Balloon", comment:</li> </ul> <p>Justification:</p> <ul style="list-style-type: none"> <li>- general: Some design organisation forbid such repairs in their maintenance manual. The repairs have to be done by the manufacture, which is holding an AMO approval.</li> <li>- "N/A" instead of "No": Such items are not installed in gas balloons.</li> </ul>
response	<p><i>Partially accepted</i></p> <p>Rejected</p> <p>The maintenance instructions of the Type Certificate Holder as expressed in the maintenance manual and instructions for continuing airworthiness are to be</p>

considered in developing the maintenance programme. However, if these instructions are less restrictive, they cannot override the basic principles.

Accepted

For "N/A" instead of "No" in the column "Gas Balloon"

comment

446

comment by: *Austro Control GmbH*

**General:**

We would like to ask, why it is such a minimised version in comparison to the draft list balloon 18 Jan 07 – comments doc, what we have commented and our previous, CS31AS, CS31GB and CS31HB proposals. We thought it should be a detailed list what tasks may be performed by the Pilot Owner. So we don't understand deleting simple tasks from the list, e.g. replacement of karabiners, cleaning and re-varnishing of baskets, replacement or cleaning of fuel cylinder restraints, etc. (only to mention some examples)!

**Specific** to NPA No 2007-08, Appendix VIII and especially Part D:

**§§ 9 and 10:**

It should be discussed if complete annual / 100 hours inspection should be permitted using special tools like grab tester and leak detector for simple checks and inspections?

**A) Envelope**

6- Valve and rip line replacement: Could be deleted, No for all 3 types makes no sense.

**B) Burner**

Gas Balloons: Insert N/A instead of No.

**C) Basket**

All four No's should be replaced by N/A

**D) Fuel Cylinder**

Gas Balloons: Insert N/A instead of No.

response

*Partially accepted*

Most external cleaning procedures should be within the skill level of the pilot/owner provided no special finishing procedures are required. The replacement of the Karabiners should be part of the pre-flight on rigging the Balloon for flight and will/should be covered by the flight manual. The table will be amended to relect most of the changes suggested.

comment

486

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

Table lines in B) Burner and D) Fuel cylinder: The "No" doesn't make sense in case of Gas Balloons and should be replaced by "N/A"

response *Accepted*

**B. Draft Rules - III. Draft Decision AMC to Part M**

p. 74

comment 348 comment by: *Swedish Civil Aviation Authority (Luftfartsstyrelsen)*

**AMC M.A. 302 7.**

The example should not refer to any existing MS's compiled maintenance programme.

response *Accepted*

Reference to LAMS maintenance programme has been removed. Nevertheless, competent authorities have the choice of developing that type of maintenance programmes. See AMC M.A.709 and AMC M.B.301(b).

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.1**

p. 74

comment 532 comment by: *SITEMA – Sindicato dos Técnicos de Manutenção de Aeronaves*

**SITEMA feels an exclusion should be made here.**

"A competent authority may be a ministry, an aviation national authority, or any aviation body (in case of a ministry, it shall be someone who actually deals with aviation regulations periodically; no operator shall be allowed) designated by the Member State. (...)"

**JUSTIFICATION:**

In the case of a ministry, if such a person is produced, it will save a lot of time and effort, because that person will not have the need to "start from the start".

If Operators are allowed to be designated "competent authority", they will be the judge in their own cause (this looks obvious to us).

response *Not accepted*

The definition of a competent authority as it stands in AMC to M.1.:

- when considering the ministry, or a NAA, always refer to the personnel involved in the survey of owners, maintenance organisations, and operators; as recommended by ICAO

(Manual 8335/AN879 may be used) therefore deals with aviation regulations on a regular basis;

- the agency sees no reason why "the operator" should be removed from the definition of competent authority, as it does not include the operator in such definition.

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.1**

p. 74



comment	<p>288 <span style="float: right;">comment by: <i>Walter Gessky</i></span></p> <p><b>AMC M.A.302 Maintenance programme</b></p> <p>Add at the end:  <b>The indirect approval for the extension of baseline/generic maintenance programme can not be applied to aircraft registered in a Member State different from the Member State responsible for the oversight of the Part-M Subpart G organisation.</b></p> <p>Justification:  For clarification that in this case the CAMO has to contact the state of register.</p>
response	<p><i>Not accepted</i></p> <p>The opinion of the Agency is that this AMC should not be modified because your proposal was already included in the NPA in M.A.302(b) and M.1.</p>
comment	<p>377 <span style="float: right;">comment by: <i>UK CAA</i></span></p> <p>PARAGRAPH: AMC M.A.302 paragraph 7</p> <p>COMMENT:</p> <p>Change "UK LAMS" to "UK LAMP" as the UK CAA light aircraft maintenance programme will be revised to reflect the terminology used in M.A.302.</p> <p>Final paragraph – last two sentences from "<i>there is no...</i>" should be deleted to be consistent with our proposal to redefine the contents of the EASA Form 14.</p> <p>JUSTIFICATION:</p> <p>UK LAMS is being replaced by LAMP (Light Aircraft Maintenance programme) this document will be amended to include the requirements of M.A.302 before the changes proposed by this NPA are finalised as an Agency opinion to the Commission.</p> <p>The maintenance programme references specified by the current Form 14 are unnecessary for standalone CAMO organisations as details of the maintenance programmes controlled by stand alone Part M subpart G organisations could be better managed via the Exposition.</p> <p>PROPOSED TEXT:</p> <p>Insert the definition of 'Base line' and 'Generic' maintenance programmes into the AMC M.A.302 if it is removed from M.A.302 as per our recommendation above.</p>
response	<p><i>Partially accepted</i></p> <p>The concept of Baseline and Generic maintenance programmes has been transferred from M.A.302 to M.A.709.</p> <p>The reference to LAMS has been removed because the Agency has decided not to make reference to specific national maintenance programmes. Nevertheless, competent authorities are entitle to develop such maintenance programmes. See AMC M.A.709 and AMC M.B.301(b).</p>

The form 14 has been amended to remove the reference to the maintenance programme. This reference has been transferred to the CAME. See also M.A.703.

comment 632 comment by: *Norwegian Civil Aviation Authority*

**AMC M.1 7.**

The example should not refer to any existing MS's compiled maintenance programme.

response *Accepted*

Reference to LAMS maintenance programme has been removed. Nevertheless, competent authorities have the choice of developing that type of maintenance programmes. See AMC M.A.709 and AMC M.B.301(b).

comment 673 comment by: *CAA Finland, Communications*

**AMC M.A.302 7**

The example should not refer to any existing Member States compiled maintenance programme.

Also Cessna 100 series is not a good example. Does it also include Cessna 195, Cessna 120 etc.

response *Accepted*

Reference to LAMS maintenance programme has been removed. Nevertheless, competent authorities have the choice of developing that type of maintenance programmes.

The reference to Cessna 100 Series has been clarified.

See AMC M.A.709 and AMC M.B.301(b).

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.A.302(d)  
Maintenance programme – reliability programmes**

p. 75

comment 250 comment by: *SFVS*

SFVS welcomes "Generic and baseline maintenance"

response *Noted*

comment 264 comment by: *René Meier*

AeCS strongly supports generic maintenance programs

response *Noted*

comment 576 comment by: *Swedish Soaring Federation*

We agree with the proposed change to allow "Baseline" or "Generic" maintenance programmes, as this will significantly reduce the level of unnecessary paperwork.

response *Noted*

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.A.401(c)  
Maintenance data**

p. 75

comment

36

comment by: *Austro Control GmbH*

Proposed new text:

M.A.401 (c), Pt. 4, 3rd bullet

- For maintenance checks, the checklist issued by the manufacturer (i.e. 100H checklist, Revision 5, Item 1 thru 95).

Justification:

For a release to service it is necessary to detail the work carried out and to give an information that up to date documentation is used. The minimum is a revision status of the checklist or the Maintenance Manual or Aero Fiche Publication and a reference to the tasks carried out.

For example: an Engine Change is prescribed in a maintenance manual but it is necessary to give information on

Which pages or points have been carried out in which section of the manual.

So reference will be e.g. Engine installation as: Maintenance Manual revision No.5 Page 15 to 20 point 1 to 37.

response

*Accepted*

See AMC M.A.401(c)

comment

73

comment by: *Sat-Heli*

the paragraph 4 could be modified as follow

"in the case of aircraft of 5700kg and below not involved in commercial transport activities, the....."

Some aircraft such Beech king air or heavy single engine Ag-spraying planes operated in aerial work are either well maintained under TCD issued check list or still be no complex aircraft.

There is no added value to rewrite the same thing under different form except as taking the risk to generate mistakes sometime.

response

*Partially accepted*

Your comment is accepted, however, it is not necessary to limit it to aircraft not involved in commercial air transport.

See AMC M.A.401(c).

comment	<p>96 <span style="float: right;">comment by: <i>DGAC France</i></span></p> <p>Attachment <a href="#">#2</a></p> <p>In AMC M.A.401(c) we propose to change the mass limit for the direct use of manufacturer's checklist from 2730kg to 5700kg.</p> <p>Giving that limit in the AMC could be understood as "what is acceptable for aircraft below 2730 kg is not acceptable above". However, we are convinced that the 2730kg limit was only introduced because the working group limited its work to those light aircraft and not because it was considered that such procedure was not acceptable above that limit.</p> <p>We consider that for aircraft which are not required to be maintained in a Part 145 organisation this simple process should be authorised (see attached Beech 200 example).</p>
response	<p><i>Partially accepted</i></p> <p>Your comment is accepted, however, it is not necessary to limit it to aircraft not involved in commercial air transport.</p> <p>See AMC M.A.401(c).</p>
comment	<p>265 <span style="float: right;">comment by: <i>Thierry LHOMMEAU - SEFA</i></span></p> <p>The proposed §4 added to AMC M.A.401 c clarifies that for aircraft of 2730 kg MTOM and below the workcard/worksheet system may take the form of , for maintenance checks, the checklist issued by the manufacturer.</p> <p>It implies that this format is not acceptable for larger aircraft and that a specific workcard/worksheet has to be set up by the maintenance organisation for these larger aircraft.</p> <p>This is a new requirement as today it is possible to use the manufacturer checklists for aircraft such as Beechcraft B200.</p> <p>This is an undue burden for the organisation to rewrite existing documentation issued by the manufacturer. Furthermore it can generate discrepancies.</p> <p>The only requirement should be, for all aircraft, to use data based on the manufacturer data. The organisation should be free to use directly the manufacturer format or to rewrite it in order it copes better with its organisation.</p>
response	<p><i>Accepted</i></p> <p>See AMC M.A.401(c)</p>
comment	<p>464 <span style="float: right;">comment by: <i>CAA-NL, SCI</i></span></p> <p>Why limit to &lt;2730 kg? Remove limitation.</p>
response	<p><i>Accepted</i></p> <p>See AMC M.A.401(c)</p>
comment	<p>487 <span style="float: right;">comment by: <i>Deutscher Aero Club e.V. (DAeC)</i></span></p> <p>DAeC welcomes that clarification.</p>

response *Noted*

comment 510 comment by: *European Gliding Union (EGU)*

EGU welcomes that clarification.

response *Noted*

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.A.402(a)  
Performance of maintenance**

p. 75

comment 99 comment by: *Ludwig Hessler*

Which training, previous experience and capability is required for the acceptance by the competent authority?

Is an AMC planned?

response *Noted*

In fact, page 75 of the NPA asks for the part of the sentence "should have had appropriate training or relevant previous experience as accepted by the competent authority and be capable of performing the task required" to be taken out.

The new AMC M.A402(a) §2 should be read: "In the case of limited pilot owner maintenance as specified in M.A.803, any person maintaining an aircraft which they own or jointly own provided they hold a valid pilot licence with the appropriate type or class rating, may perform the limited pilot owner maintenance tasks IAW Part M Appendix VIII.

The concept of the competency of the pilot owner maintenance has been based on the self assessment of the pilot-owner. As described in the explanatory notes of the NPA, it was found burdensome and too much bureaucratic the competency to be checked by the competent authority.

comment 289 comment by: *Walter Gessky*

**AMC M.A.402(a) Performance of maintenance**

Change the following.

2. In the case of limited pilot owner maintenance as specified in M.A.803, any person **with the minimum age of 18 years**, maintaining an aircraft which they own or jointly own, provided they hold a valid pilot licence with the appropriate type or class rating, **and who has received an adequate task or type training by a competent person or organisation accepted by the competent authority** may perform the limited pilot owner maintenance tasks IAW Part-M Appendix VIII. ~~should have had appropriate training or relevant previous experience as accepted by the competent authority and be capable of performing the task required~~

Justification:

It is not sufficient that the pilot owners familiarise themselves, they also have to show that they have received training on tasks or on the type from a competent organisation/person. This would be in line with ICAO standards in respect of knowledge and skills. To comply with ICAO Annex 1 requirements concerning age limit of maintenance personnel, the person carrying out limited pilot owner maintenance tasks should not be less than 18 years old.

response *Not accepted*

1) For the age

§4.2.1.1 of ICAO annex 1 refers to the maintenance licence although the pilot owner maintenance concept is based on the pilot licence. It is also limited to aircraft below 2730kgs.

The pilot licence remains a pilot licence and does not become a maintenance licence. The pilot licence just gives privileges to the pilot to carry out limited maintenance tasks on the aircraft that he owns; a maintenance licence may give privileges on any other aircraft of the same category.

2) Training and check of the competence

The concept of "self assessment" has been preferred.

The list (Appendix VIII of Part M) has been compiled to exclude safety critical items and no current evidence exists to support that self assessment would produce accidents caused by Pilot-Owner Maintenance. Assessment of a pilot-owner's competence by a maintenance organisation or a licensed person or NAA was considered to be unjustified when compared against the perceived safety benefit

In addition, as described in M.A.201 (a) & (c), the owner remains responsible for the maintenance tasks performed.

Refer also to paragraph 64 of the NPA explanatory note where additional elements to the assessment of the pilot's capability are given.

comment 323

comment by: *Tim FREEGARDE*

The component categories and handling regimes involving secure storage are thoroughly unnecessary and impractically burdensome for light aviation, and are incompatible with the retail-scale operations of light aviation suppliers. There is no problem here that requires fixing, either with the supply and traceability of certified parts or, indeed, with any failures or accidents that might be so attributed. The present, long established and well proven methods of recording and traceability are fully satisfactory; EASA's proposals are thoroughly unworkable.

response *Partially accepted*

It has been introduced the possibility to transfer unserviceable components to the owner under certain conditions. See M.A.504(b).

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.A.502 Component maintenance** p. 75-76

comment 34

comment by: *BGA*

AMC MA401 (c) Page 75

The second bullet should read 'An aircraft logbook that contains the reports of defects and the actions taken...etc' - why specify pilot when an engineer could use the logbook?

response

*Accepted*

See AMC M.A.401(c)

comment

428

comment by: *Tom Snoddy*

The proposed system is far to complex for operators of light aircraft and gliders and will impose large costs without any safety benefits. The process may be suitable for CAT but in respect of light aircraft and gliders it must be stopped now. Reliance should be placed on qualified engineers issuing the Form 1.

response

*Partially accepted*

M.A.502 has been revised in order to allow some additional maintenance on components to independent certifying staff. However, this maintenance shall be subject to aircraft release procedures and will not be eligible for the issuance of a Form 1.

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.A.502(b)  
Component maintenance**

p. 76

comment

32

comment by: *BGA*

AMC 504(b) Page 76

If the aircraft owner does not agree to the maintenance organisation holding the unserviceable component, how is it controlled? It would be legally unacceptable in certain EU states to force an owner to contractually agree to hand over his property in order to receive a service.

response

*Accepted*

It has been introduced the possibility to transfer unserviceable components to the owner under certain conditions. See M.A.504(b).

comment

33

comment by: *BGA*

AMC MA 502 (b) Page 76

The regulation requires an extraordinary number of component approvals for a sporting aviation continuing airworthiness environment. By requiring a special approval for an inspector or engineer to dismantle, service and reassemble a simple mechanical component (such as a sailplane wheel brake or hub) it is clear that the regulation is too cumbersome an inappropriate for sporting aviation.

A further economic and organisational burden will occur where non-EASA certified (eg from the US) parts will need the involvement of a Part M component rated organisation to facilitate installation of the parts.

response

*Accepted*

M.A.502 has been revised to clarify what is component maintenance and to

significantly increase the amount of cases where maintenance on components do not require a "C-rated" organisation. In this case, the maintenance will be subject to aircraft release requirements and will not be eligible for issuance of a Form 1.

AMC M.A.613(a) has been amended in order to allow the issuance of a Form 1 for components maintained in the USA and Canada under certain inspections and verifications, by Subpart F or Part-145 organisation that do not hold a "C-rating".

comment 173

comment by: *Derek Wilson*

The only necessary requirement for safety is that preparedness of an appropriately qualified engineer/organisation to release the part with a Form 1

The requirement for storage in 'a secure location under the control of an MA502 approved organisation' is again too beauracratc for non-CAT sport/General aviation.

response *Accepted*

It has been introduced the possibility to transfer unserviceable components to the owner under certain conditions. See M.A.504(b).

comment 363

comment by: *Norwegian Air Sports Federation, Gliding Section*

**AMC M.A.502 (b) Component maintenance**

*Page 76*

We still think that the wording "when such removal is expressly permitted by the aircraft maintenance manual" is unnecessarily strict in relation to removal/re-installation of components, because the Maintenance Manual of most light aircraft do not specify permitted maintenance operations to this level of detail,

In many cases, it is necessary or practical to remove components from the aircraft for maintenance, inspection or calibration.

response *Accepted*

The wording has been removed. It will be allowed as long as there is no need for component maintenance data.

See M.A.502.

comment 378

comment by: *UK CAA*

PARAGRAPH: AMC.M.A.502 (b)

COMMENT:

Using the word 'implies' here is not sufficiently descriptive to assure compliance.



## JUSTIFICATION:

Clarity.

## PROPOSED TEXT:

Replace the word "implies" with "means".

response

*Accepted*

The sentence has been reworded and transferred from AMC M.A.502(b) to M.A.502.

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.A.504(b) Control of unserviceable components**

p. 76

comment

38

comment by: *Austro Control GmbH*

Delete Pt. 3

Justification: It is completely impracticable and has an impact on ownership of goods. There must be an agreement for storage of components for each owner of an aircraft with an Part M(F) or Part 145 Organisation with conditions to fulfil. It is an administrative burden and not controllable for any authority. What can we do if the maintenance organisation does not want to keep other components on storage.

response

*Partially accepted*

It has been introduced the possibility to transfer unserviceable components to the owner under certain conditions. See M.A.504(b).

comment

74

comment by: *Sat-Heli*

The limit of responsibility of organisation controlling such parts should be limited to hold a tracking data keeping the pertinent data of recipient of the component when the component under his control leave the storage area.

Commonly a lot of unserviceable parts are sent back on an exchange basis to vendors. Those vendors haven't any sort of agreement to deal with aeronautical parts. A majority of them have commercial agreements with manufacturers or approved shops but Maintenance organizations can't be accountable for final destination of returned core deposits.

2nd question: what sort of unserviceable components must be considered ?

A damaged M/R blade is much more critical than a piston starter.

response

*Partially accepted*

It has been introduced the possibility to transfer unserviceable components to the owner under certain conditions. See M.A.504(b).

Regarding the 2nd question, all unserviceable components that are not declared unsalvageable are affected, until a decision is made on whether the component is declared unsalvageable or is sent for repair.

comment	<p>209 <span style="float: right;">comment by: <i>Ted Norman</i></span></p> <p>AMC M.A.504(b)</p> <p>This is just fanciful when applied to Gliders/Light aircraft do you really believe someone is going to pay these costs. I would suggest that the reasoning behind this is the unapproved parts saga that bedevilled CAT and is still happening. And thats with large amonts of manpower and all that goes with CAT. Totally and completely over the top for gliders and Light Aircraft. Once again no consideration of costs or Safety.</p>
response	<p><i>Partially accepted</i></p> <p>It has been introduced the possibility to transfer unserviceable components to the owner under certain conditions. See M.A.504(b).</p> <p>However, it is important to keep track and control of unserviceable components.</p>
comment	<p>299 <span style="float: right;">comment by: <i>ICAA</i></span></p> <p>To confiscate privately own component without the agreement of the aircraft owner/lessee does not seem to meet the relevant national law regarding the ownership.</p>
response	<p><i>Accepted</i></p> <p>It has been introduced the possibility to transfer unserviceable components to the owner under certain conditions. See M.A.504(b).</p>
comment	<p>349 <span style="float: right;">comment by: <i>Swedish Civil Aviation Authority (Luftfartsstyrelsen)</i></span></p> <p><b>AMC M.A. 504(b) 3.</b></p> <p>To confiscate privately own component without the agreement of the aircraft owner/lessee does not seem to meet the relevant national law regarding the ownership.</p>
response	<p><i>Accepted</i></p> <p>It has been introduced the possibility to transfer unserviceable components to the owner under certain conditions. See M.A.504(b).</p>
comment	<p>379 <span style="float: right;">comment by: <i>UK CAA</i></span></p> <p>PARAGRAPH: AMC.M.A.504 (b)</p> <p>COMMENT:</p> <p>Remove all reference to 'an approved organisation's secure location', just refer to a secure location.</p> <p>JUSTIFICATION:</p> <p>This proposal is unreasonable, impractical, will add unnecessary cost, it is neither workable nor enforceable and implies that an independent licensed</p>

aircraft engineer must have a business relationship with an approved maintenance organisation.

PROPOSED TEXT:

As described in the comment box above.

response *Partially accepted*

It has been introduced the possibility to transfer unserviceable components to the owner under certain conditions. See M.A.504(b).

comment *531* comment by: *Damian LE ROUX*

For private light aircraft this is excessive and expensive and very difficult to practically apply.

response *Accepted*

It has been introduced the possibility to transfer unserviceable components to the owner under certain conditions. See M.A.504(b).

comment *633* comment by: *Norwegian Civil Aviation Authority*

**AMC M.A. 504(b)**

To confiscate privately own component without the agreement of the aircraft owner/lessee does not seem to meet the relevant national law regarding ownership.

response *Accepted*

It has been introduced the possibility to transfer unserviceable components to the owner under certain conditions. See M.A.504(b).

comment *643* comment by: *Fédération Francaise Aéronautique*

AFFECTED PARAGRAPH:  
[M.A.504b](#)

PROPOSED TEXT/COMMENT:

We propose to modify [M.A.504](#) as follows :

(b) Unserviceable components shall be identified and stored in a secure location under the control of ~~the M.A.502~~ an approved organisation, with the agreement of the aircraft owner/lessee as defined within MA201, until a decision is made on the future status of such component.

JUSTIFICATION:

There is no reason that only a particular organisation takes care of the storage of such a component. The a/c owner must have the choice to decide which one can store a component for him. A procedure between the owner and the CAMO should be written in their contract.

An AMC 504 should describe how a (certify and/or identify) person shall

identify and store any unserviceable component in a secure location approved and accessible to the competent authority until a decision is made on the future status of such component.

Furthermore, EASA have to know that the standard parts exchange is a frequent and necessary practice. It consist to return to the specialized sender an unserviceable part removed from an a/c due to trouble or time limit after the airworthy part delivering with Form 1 or 8130-3. Those unserviceable parts are returning directly to the manufacturer or an approved organisation.

response *Partially accepted*

The reference to the M.A.502 organisation has been removed because the component can also be removed and stored by a Part-145 organisation or by an "A-rated" Subpart-F organisation.

It has been included the possibility to transfer the component to the owner under certain conditions. See M.A.504.

comment 682

comment by: *Royal Swedish Aero Club*

The requirement for storage in 'a secure location under the control of an MA502 approved organisation' is overly prescriptive for non-CAT sport/General aviation. The only necessary requirement for safety is that preparedness of an appropriately qualified engineer/organisation to release the part with a Form 1

Justification

This rule has been wholly driven by the 'bogus part' issue in commercial air transport where commercial issues prevail. It is inappropriate to Sport/GA where many parts may be release to commercial stand and/or safely recycled. While the previous history and stocking of a part may in limited cases be of significance, the judgement should be at the discretion of the appropriate releasing party.

Further it is inappropriate that items that are, in common law, the property of individuals, should be retained by a third party in a remote location. Equally the burden of stock control, storage and record keeping will drive up the costs to all concerned.

Yet again EASA is overly prescriptive of the details by which a rule is executed rather than specifying the overarching regulatory framework.

response *Partially accepted*

It has been introduced the possibility to transfer unserviceable components to the owner under certain conditions. See M.A.504(b).

However, it is important to keep track and control of unserviceable components.

comment	584	comment by: <i>Programme Manager Europe Air Sports</i>
	<p>This new requirement of sending an unservicable component to an external maintenance organisation for secure storage must be changed.</p> <p>If a part is marked and stored in a safe location, not accessible for routine work and personal, it can be stored without any danger within the maintenance organisation without any special risk.</p>	
response	<i>Partially accepted</i>	
	<p>The reference to the M.A.502 organisation has been removed because the component can also be removed and stored by a Part-145 organisation or by an "A-rated" Subpart-F organisation.</p> <p>It has been included the possibility to transfer the component to the owner under certain conditions. See M.A.504.</p>	
comment	622	comment by: <i>BGA</i>
	1	
response	<i>Noted</i>	

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.A.607(c)  
Certifying staff**

p. 77

comment	490	comment by: <i>CAA-NL, SCI</i>
	<p>Sub-part F does, until now, not require the organisations explicitly to issue authorisations. Indirectly however the AMC material and description of the form 1 assume there are sub-part F authorisations. This should be a formal requirement.</p>	
response	<i>Partially accepted</i>	
	<p>In subpart F organisations, the authorisation to certifying staff can be handled with the list of certifying staff contained in the Maintenance Organisation Manual (MOM). In Part-145 organisations it is more critical because there is category A personnel with very specific tasks authorisations.</p> <p>Nevertheless, in order to align with the requirement of including the personal authorisation reference of the certifying person in Block 22 of the Form 1 (Appendix II to Part-M), an amendment has been introduced in AMC M.A.607(c), which now becomes AMC M.A.607(b), and also to Appendix IV to AMC M.A.604, requiring such reference to be kept in the personal records and specified in the Maintenance Organisation Manual (MOM).</p>	

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.A.615(3)  
Privileges of the organisation**

p. 78

comment	14	comment by: <i>Sat-Heli</i>
	Subject M.A 615	

1; maintain any aircraft and/or component for which it is approved at the locations specified in the approval certificate and in the manual.

2. maintain any aircraft and/or component for which it is approved at any other location subject to such maintenance

being only necessary to rectify arising defects.

<!--[if !supportEmptyParas]--> <!--[endif]-->

*Preamble:*

*As an approved maintenance shop dedicated in support of a lot of light helicopters and fixed wings planes overall metropolitan France, overseas territories and some foreign countries operated privately or in aerial work like training , aerial photography or Ag spraying, we do a lot of scheduled inspection out of fixed bases.*

*While the M.A 615 2 authorize any non scheduled task like exchange of complete engine or gearbox anywhere, the # 1 requirement in effect today will exclude the possibility to perform (except pilot tasks) any scheduled task **except to admit that those aircrafts will be maintained out of a controlled environment.***

*This fact is not an advantage for customers and operators , nor for the CAMO in charge of them.*

*So I would like suggest an advanced interpretation of pertinent AMC relating to what is an approved location.*

AMC M.A.615 (1)

"Locations specified" means: Main and secondary fixed bases.

Also , limited to non complex aircrafts (less than 2730kgs) not involved in commercial air transport, the possibility to the AMO **as secondary base the concept of "interim base"**.

the "interim base" is not defined geographically, the kind of scheduled inspection for each model of aircraft is restricted by environmental conditions like outer temperature, weather conditions, hangar availability, kind of hangar surface, electricity, water, compressed air heater ( temperature controlled working area), the availability, the need and possibility to displace and operate the heaviest and needed tools for the considered scheduled inspection

The AMO shall define

A/Procedures to determine scope limitations in regard of type of aircraft, scheduled inspections and environmental conditions

B/ Logistic procedures to assure the full availability to personnel involved in those tasks , the needed tools, spares and documentation. Those procedures control the movement and tracking of spares and their associated certification documents.

C/The AMO shall demonstrate means of compliance to perform those procedures.

<!--[if !supportEmptyParas]--> <!--[endif]-->

*For example, for a light piston helicopter, outdoor and without precipitation , only a scheduled 50h inspection should be possible to perform*

*Conversely, in an aviation hangar temperature controlled with concrete, doors, electricity ,water, compressed air and 2 qualified personnel to comply with double checks requirements, assuming all needed tools , documentation and*

*spares will be available on place, an annual inspection could be done*

response

*Not accepted*

The intention of M.A.615, paragraph 1 is that the organisation lists in the exposition all the locations where they perform scheduled maintenance, whether they are the main location or additional locations. These locations must be approved by the competent authority in order to verify that the proper facilities, equipment, tooling, etc are available.

In Subpart F there is no concept of Line and Base maintenance.

Outside those locations listed in the exposition the organisation can only perform defect rectification in accordance with approved procedures.

Increasing the privilege to perform scheduled maintenance at any location without prior approval may result in a reduction of control of such maintenance.

This does not prevent independent certifying staff to perform that scheduled maintenance at any location (as long as the task is not complex per Appendix VII), with the consequence that the aircraft does not stay in a controlled environment, which makes not possible to extend the ARC. The aircraft requires to have a full airworthiness review every year (performed either by a CAMO or by the competent authority if the aircraft is not involved in commercial air transport and is below 2730 Kg MTOM).

The Agency has the opinion that this annual review is valuable to make sure that the aircraft is maintained airworthy, since this type of aircraft may very rarely visit a proper maintenance facility.

comment

*100*

comment by: *Ludwig Hessler*

The intent is to permit the acceptance of specialised maintenance services, such as, but not limited to non destructive testing, surface treatment, heat-treatment, welding, ~~fabrication of specified parts for minor repairs and modifications~~, etc., without the need of Subpart F approval for those tasks.

-

JUSTIFICATION:

The fabrication tasks are part of option 3, which was not chosen.

response

*Not accepted*

Option 3 consisted in granting the same sub-contracting privileges that exist for Part-145 organisations.

This option was not selected because of the lack of a Quality System. As a consequence, the scope is more limited, not including the possibility to subcontract activities listed in AMC 145.A.75(b), paragraphs (b), (c) and (d).

Only specialised activities listed in paragraph (a) were considered, which include the fabrication of parts.

The Agency finds it is not necessary to modify the proposed text.

comment

*300*

comment by: *ICAA*

	The word "formally accepted" in the second part of the text should be better defined
response	<i>Accepted</i> AMC M.A.615(3) has been reworded.

comment	497 <span style="float: right;">comment by: <i>M Wilson</i></span>
	<p>ECOGAS does not believe the AMC provides sufficient guidance to NAA's in this instance.</p> <p>"The requirement that the organisation performing the specialised services must be "<b>appropriately qualified</b>" means that it should meet an officially recognised standard or, <b>otherwise, it should be formally accepted by the competent authority.</b> "</p> <p>If simple acceptance by the NAA (competent authority) is all that is required why bother with any other wording than "acceptable to the authority"? ECOGAS did not think such wording was acceptable in EASA rules.</p>

response	<i>Accepted</i> AMC M.A.615(3) has been reworded.
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comment	637 <span style="float: right;">comment by: <i>Norwegian Civil Aviation Authority</i></span>
	<p><b>AMC M.A. 615(3)</b> The word "formally accepted" in the second part of the text should be better defined.</p>

response	<i>Accepted</i> AMC M.A.615(3) has been reworded.
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comment	674 <span style="float: right;">comment by: <i>CAA Finland, Communications</i></span>
	<p><b>AMC M.A. 615(3)</b> The word "formally accepted" in the second part of the text should be better defined.</p>

response	<i>Accepted</i> AMC M.A.615(3) has been reworded.
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<b>B. Draft Rules - III. Draft Decision AMC to Part M - Appendix VIII to AMC M.A.616</b>	p. 78-79
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comment	62 <span style="float: right;">comment by: <i>Aircraft Engineers International (AEI)</i></span>
	<p><b>3. Training and experience of evaluators.</b></p> <p>Recurrent training - A programme for continuation training should be developed for evaluators. <del>It should provide for evaluators, at regular intervals, to attend technical training and specific review training to gain first hand</del></p>



~~knowledge of new developments.~~

=

Comment:

Leave stricken through (green and underlined) text in.

Reason:

To enable evaluators to carry out their work properly they also need regular information/training in the review and technical area

response

*Noted*

Appendix VIII to AMC M.A.616 and Appendix XII to AMC M.A.712(f) have been simplified to better adapt them to the lower complexity of small organisations.

comment

350

comment by: *Swedish Civil Aviation Authority (Luftfartsstyrelsen)*

**AMC M.A. 615(3)**

The word "formally accepted" in the second part of the text should be better defined.

response

*Accepted*

AMC M.A.615(3) has been reworded.

## **B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.A.706 Personnel requirements**

p. 79

comment

97

comment by: *DGAC France*

In organisations which are going to apply for continuing airworthiness management, a large majority of possible nominated persons are not able to provide NAA with engineering degree or equivalent, although they have received informal OJT and have been managing continuing airworthiness of aircraft for years.

We consider that, as a transition measure, experience should be considered as an acceptable mean of compliance.

We thus propose to add at the end of paragraph 4.5 of AMC M.A.706 a paragraph stating:

"For an application made before 28.09.2008, relevant engineering degree/qualification, may be replaced by appropriate experience acceptable to the competent authority".

response

*Partially accepted*

The intention of the comment has been included although with specific years of experience. See AMC M.A.706.

comment

233

comment by: *BCAA - DAE - Certification*

A Level I general familiarization course, considered as a formalised training course, seems to be very light to acquire the required sufficient knowledge of a relevant sample of type(s) aircraft.

response

*Not accepted*

These personnel are not maintaining aircraft and as a consequence they don't need the same depth of training.

comment 465 comment by: CAA-NL, SCI

Add new requirement to AMC M.A.706, 4: "knowledge of EASA Part M."

response Accepted

New paragraph 4.9 has been added in AMC M.A.706.

comment 596 comment by: SNMSAC Syndicat National des Mécaniciens Sol de l'Aviation Civile

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page 79/144

Appendix VIII to AMC M.A.616

### 3. Training and experience of evaluators.

Recurrent training - A programme for continuation training should be developed for evaluators. ~~It should provide for evaluators, at regular intervals, to attend technical training and specific review training to gain first hand knowledge of new developments.~~

Comment:

Cancel the stricken through and keep the text.

Reason:

Evaluators in order to do a correct check of the candidate shall have also updated knowledge with refresh information and training.

response Noted

Appendix VIII to AMC M.A.616 and Appendix XII to AMC M.A.712(f) have been simplified to better adapt them to the lower complexity of small organisations.

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.A.707 (a)  
Airworthiness review staff**

p. 79-80

comment 40 comment by: Austro Control GmbH

Proposed new text

AMC M.A.707(a), Pt. 5, 1st bullet

• Having authorisation to perform airworthiness reviews only on aircraft which have not been managed by that person. For example, performing airworthiness reviews on a specific model line, while being involved in the management of a different model line. **those particular aircrafts for which the person is**

responsible for the complete continuing airworthiness management process.

Justification: This is against the rule and in that case you can use nearly every CAMO personal. It is then open to review complete other aircrafts as managed because the scope of Airworthiness review personal is wide open in the subcategory of a 66 Licence. This bullet point is a complete reduction of competence.

response *Partially accepted*

Your proposed text is already included in the NPA in AMC M.A.707(a) as one of the possibilities to comply with the "overall authority". As a consequence, it is not necessary to include it again.

The existing text in the NPA is not against the rule because it guarantees independence from the management process of the aircraft. Nevertheless, it has been reworded to better clarify its intent.

comment 102

comment by: *Ludwig Hessler*

PROPOSED TEXT:

... Aircraft used ~~in commercial air transport and~~ by an owner which holds an AOC in accordance with M.A.201 (g) to (i) or aircraft above 2730 kg MTOM,...

JUSTIFICATION:

Use the wording, because **all** aircraft used by an organisation which holds an AOC should be treated under the conditions mentioned in 1. For aircraft used ~~in commercial air transport and~~ by an owner which holds an AOC in accordance with M.A.201 (g) to (i) or aircraft above 2730 kg MTOM,...

A reference to M.A.706 should be added to the first paragraph.

JUSTIFICATION:

Use the wording, because **all** aircraft used by an organisation which holds an AOC should be treated under the conditions mentioned in that paragraph.

response *Not accepted*

The Agency is of the opinion that the requirements should be proportional to the risks and consequences involved. Aircraft involved in commercial air transport are more likely to carry passengers (or more passengers) than those involved in other operational activities.

As a consequence the Agency is in favour of more stringent requirements for commercial air transport.

comment 279

comment by: *John DAVIES*

Attachment [#3](#)

The 2730 kg weight limit bears no relevance to hot air balloons. I have attached a PDF file as means of explanation

response *Accepted*

The alleviation provisions introduced in Part-M have been extended to all balloons not involved in commercial air transport, regardless of size.

comment	290	comment by: <i>Walter Gessky</i>
	<b>Page 80, AMC M.A.707(a) Item 5, 2<sup>nd</sup> Bullet Point in 2<sup>nd</sup> Paragraph</b>	
	Change the text:	
	<ul style="list-style-type: none"> <li>• In the case of organisations with Subpart F, Subpart G and Subpart I approval, maintenance personnel from the Subpart F organisation may be nominated as airworthiness review staff, as long as they are only involved in the maintenance of the aircraft but not involved <b>in the issuance of the release to service and</b> in its maintenance management.</li> </ul>	
	Justification:	
	To avoid conflicts of interest, staff involved in the issuance of a release to service or in the maintenance management or responsible for the complete airworthiness management should not review its own work (constraint in the airworthiness	
response	<i>Accepted</i>	
	AMC M.A.707(a) has been amended accordingly.	

comment	365	comment by: <i>Norwegian Air Sports Federation, Gliding Section</i>
	AMC M.A. 707 Airworthiness Review Staff <i>Page 80</i>	
	The wording in M.A. 707 that Airworthiness Review Staff must have " a position within the approved organisation with appropriate responsibilities.", is interpreted in the AMC as a requirement that the Airworthiness Review Staff must be "independent from the airworthiness management process".	
	In our opinion, this interpretation could cause unnecessary problems in allocation/use of qualified personnel within small organisations.	
response	<i>Not accepted</i>	
	"A position within the approved organisation with appropriate responsibilities" is interpreted in the AMC as <b><u>either:</u></b>	
	<ul style="list-style-type: none"> <li>• Independence from the airworthiness management process, <b><u>or</u></b></li> <li>• having overall authority.</li> </ul>	
	As a consequence, it is not always required to be independent.	

comment	392	comment by: <i>CAA CZ</i>
	1) From AMC M.A.707 (a) it follows that in the case of one-man organisation with Subpart G and I approval this person has overall authority in the continuing airworthiness management. We assume that this means that this person may manage the continuing airworthiness and carry out the airworthiness review at the same time and in the case of aircraft of 2.730 kg MTOM and less, which are not involved in the commercial air transport this person may issue or extend ARC (EASA Form 15b). Is this requirement applied in case that this person is also the person in accordance with M.A.801 (b) 2 or (b) 3?	

2) We would like to express our concern about possible non-consistent attitude in AMC M.A.707 (a), where on one hand the possibility to ensure independence of the airworthiness review staff from persons involved in the continuing airworthiness management process is defined and on the other hand the overall authority is guaranteed and the independence stated above is not required. It may result in potential unequal approach to the applicants. In connection with this requirement we would like to ask you for interpretation of the following text from AMC M.A.707 (a): "*Having authorisation to perform airworthiness reviews only on those particular aircrafts for which the person is responsible for the complete continuing airworthiness management process.*" – On the basis of what requirement is this authorisation granted? And who issues this authorisation?

response *Noted*

In reply to your questions:

1) Within the context of the current proposals of the NPA, in a one-man organisation that holds Subpart-F and G approvals, including airworthiness review privileges, that person can perform all the functions:

- Continuing airworthiness management.
- Airworthiness review staff.
- Certifying staff.

2) According to AMC M.A.707(a) "a position within the approved organisation with appropriate responsibilities" means either:

- Independence from the airworthiness process, or
- Having overall authority

3) This authorisation is the one granted by the M.A. Subpart G organisation, after the person has been accepted by the competent authority, in accordance with M.A.707(b).

comment 416

comment by: *Tom Snoddy*

MA707 and AMC707(a)

The proposed CAMO system is far to complex for operators of light aircraft and gliders. It will fill many filing cabinets with useless papers but it will divert funds from airframe and engine maintenance into pointless bureaucracy. It is not appropriate for simple aircraft and gliders and will impose large costs without any safety benefits. The process must be stopped now. Delegation to bodies such as the British Gliding Association has worked satisfactorily at low cost and has produced an excellent safety record.

response *Noted*

Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.

comment 529

comment by: *Damian LE ROUX*

response	<p>Airworthiness review staff will again add un-necessary extra cost to private light flight.</p> <p><i>Not accepted</i></p> <p>Airworthiness Review Staff are essential to perform a role that has been typically the function of the competent authorities.</p>
comment	<p>680 ❖ <span style="float: right;">comment by: <i>Royal Swedish Aero Club</i></span></p> <p>Overview/Audit of processes within the CAMO concept remains unnecessarily burdensome for airworthiness of sport/General aviation. As drafted in NPA2007/08 an already approved CAMO operates with the following constraints:</p> <ul style="list-style-type: none"> <li>• The requirement for independent Airworthiness review staff (MA707) increasing the staffing requirements on all but the 'one-man CAMO'. This makes smaller (but greater than one man) organisation overburdened with meaningless segregation of role to the extent that additional staff will be required.</li> <li>• An externally executed Quality Audit, or internal review (MA712) to be carried out at stipulated intervals.</li> <li>• The continuing obligation of an NAA to make external audits to its satisfaction at any time at the CAMO's expense.</li> </ul> <p>All of these measures are applied to what is essentially an office based bureaucratic function, not even actually engaged in work on airframes.</p> <p>Justification These combined measures are wholly disproportionate to for sport/GA operations particularly if, as is the expressed intention of the EASA Rulemaking Director, sporting bodies should be enabled to take on these roles. In his view of this sporting association, an appropriate sub-set of these requirements would be:</p> <ul style="list-style-type: none"> <li>• Complete relaxation of requirement for 'Independent Review Staff'</li> <li>• Application of internal review process only for sporting bodies and associations acting as CAMO's.</li> <li>• Continuing reliance on NAA's for the quality audit function.</li> </ul>
response	<p><i>Not accepted</i></p> <p>Refer to the explanation related to Quality Systems and Organisational Reviews in Attachment 1 to the CRD in paragraph GENERAL ISSUES.</p>

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.A.707 (a)(1)  
Airworthiness review staff**

p. 80-81

comment	<p>41 <span style="float: right;">comment by: <i>Austro Control GmbH</i></span></p> <p>Proposed new text AMC M.A.707(a)(1), 6th bullet</p> <ul style="list-style-type: none"> <li>• Knowledge of a relevant sample of the type(s) of aircraft gained through a</li> </ul>
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~~formalised training course. These courses should be at least at the Level 1 General Familiarization as specified in Part 66, Appendix III and should cover at least one aircraft type for each subcategory (i.e. helicopter piston, helicopter turbine, aeroplane piston, aeroplane turbine) and for each type of turbine propulsion system (turbofan, turboprop). one Level 3 Course as specified in Part 66. It may be necessary to have additionally more Level 3 courses on types on different manufacturers above 5700 kg MTOW.~~

Justification:

The standard is too low to have only a Level 1 Course. The physical survey of an airworthiness review should be supported by technical expertise and not only an idea of an aircraft.

response *Not accepted*

These personnel are not maintaining aircraft. The tasks listed in M.A.710(c) do not require such depth of training. In addition, airworthiness review staff will be assisted by Part-66 personnel when they do not hold the Part-66 licence.

comment

65

comment by: *BGA*

AMC 707 Page 80

There is no reasonable requirement to force an air sports continuing airworthiness organisation to employ an additional, independent person to act as airworthiness review staff. This regulation is primarily an administrative function and it is disproportionate to apply independent requirement to sporting and recreational activity.

response *Not accepted*

It is not mandatory to have independent airworthiness review staff. According to AMC M.A.707(a), it is possible to nominate airworthiness review staff that has overall authority in the airworthiness management process of the aircraft that will be reviewed.

comment

139

comment by: *BCAA - DAE - Certification*

In the case of a one man organisation (Part M Subpart G for non commercial aviation), this person is the single responsible of the organisation with full authority. That means that this person can also be nominated as airworthiness review staff. Consequently, how can this person have an independent position from the airworthiness manager process ?

response *Not accepted*

"A position within the approved organisation with appropriate responsibilities" is interpreted in the AMC as **either**:

- Independence from the airworthiness management process, **or**
- having overall authority.

As a consequence, if the person has overall authority, it is not necessary to be independent.

comment	292 <span style="float: right;">comment by: <i>Walter Gessky</i></span>
	<p><b>New AMC M.A.707 (a)(1) Airworthiness review staff, 6<sup>th</sup> Bullet Point</b></p> <p>Change the text:  <b>At least one full Level 3 Course or training as specified in Part 66 in each category and</b> Knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course. These courses should be at least at the Level 1 General Familiarization as specified in Part-66, Appendix III and should cover at least one aircraft type for each subcategory (i.e. helicopter piston, helicopter turbine, aeroplane piston, aeroplane turbine) and for each type of turbine propulsion system (turbofan, turboprop).</p> <p>Justification:  The proposed standard for airworthiness review staff is too low. Similar to Category C staff according to Part-66 at least one full level 3 course should be the basis for this privilege.</p>
response	<i>Not accepted</i>
	<p>These personnel are not maintaining aircraft. The tasks listed in M.A.710(c) do not require such depth of training. In addition, airworthiness review staff will be assisted by Part-66 personnel when they do not hold the Part-66 licence.</p>
comment	380 <span style="float: right;">comment by: <i>UK CAA</i></span>
	<p>PARAGRAPH: AMC.M.A.707 (a) Airworthiness review staff Para 5</p> <p>COMMENT:  Reword paragraph 5 second bullet point</p> <p>JUSTIFICATION:  Clarity</p> <p>PROPOSED TEXT:  Organisations with Subpart F /or Part 145, Subpart G and I privileges may nominate maintenance personnel from their Subpart F/ Part 145 organisation as airworthiness review staff, as long as they are only involved in the maintenance of the aircraft and not involved in its maintenance management.</p>
response	<i>Accepted</i>
	<p>The paragraph has been reworded.</p>
comment	466 <span style="float: right;">comment by: <i>CAA-NL, SCI</i></span>
	<p>From AMC M.A.707(a)(1) remove the following:</p> <ul style="list-style-type: none"> <li>• The operator’s Operations Specifications when applicable.</li> <li>• Relevant parts of the operator’s Operations Manual when applicable.</li> <li>• Relevant parts of operational requirements and procedures, if applicable.</li> </ul> <p>It is not necessary for airworthiness review staff to be formally trained on these subjects. This would seriously hinder issuing recommendations for ARC’s</p>



	for third parties.
response	<p><i>Partially accepted</i></p> <p>AMC M.A.707(a)(1) has been amended to remove:</p> <p>"The operator's Operation Specifications when applicable"</p> <p>"Relevant parts of the operator's Operations Manual when applicable"</p> <p>However, the bullet "relevant parts of operational requirements and procedures" has been kept, because they intent to cover general operational requirements that are not just applicable to one operator but to the vast majority.</p>
comment	<p>610 <span style="float: right;">comment by: <i>Malta Department of Civil Aviation</i></span></p> <p>To add 'familiarisation with Part-21'</p> <p>or 'training in the provisions of Part-21 relating to C of A, modifications, STC's, repairs, permit to fly'</p>
response	<p><i>Accepted</i></p> <p>AMC M.A.707(a)1 and (a)2 have been accordingly amended.</p>

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.A.707 (a)(2)**  
**Airworthiness review staff**

p. 81

comment	<p>42 <span style="float: right;">comment by: <i>Austro Control GmbH</i></span></p> <p>Proposed text</p> <p>AMC M.A.702(a)(2), Pt. 2, 4th bullet</p> <ul style="list-style-type: none"> <li>• Knowledge of a relevant sample of the type(s) of aircraft gained through training and/or work experience. Such courses / experience should be at least at the Level 1 General Familiarization as specified in Part 66, Appendix III or equivalent, and should cover at least one aircraft type for each subcategory (i.e. helicopter piston, helicopter turbine, rotorcraft, aeroplane piston, aeroplane turbine, gliders and balloons) and for each type of turbine propulsion system (turbofan, turboprop). <b>one Level 3 Course as specified in Part 66. It may be necessary to have additionally more Level 3 courses on types on different manufacturers.</b></li> </ul> <p>Justification</p> <p>The standard is too low to have only the knowledge on a Level 1 Course. Especially in this category of aircraft the physical survey of an airworthiness review should be supported by technical expertise and not only an idea of an aircraft.</p>
response	<p><i>Not accepted</i></p> <p>These personnel are not maintaining aircraft. The tasks listed in M.A.710(c) do not require such depth of training. In addition, airworthiness review staff will be assisted by Part-66 personnel when they do not hold the Part-66 licence.</p>
comment	<p>103 <span style="float: right;">comment by: <i>Ludwig Hessler</i></span></p>

Do EASA trainings courses and JAATO training courses fulfil the requirements as appropriate aeronautical maintenance training?

What is the meaning of the wording "Maintenance methods"?

response *Noted*

Those courses may be acceptable if they cover the appropriate subject.

"Maintenance methods" are intended to cover typical maintenance practices such as, but not limited to, those covered by Module 7.20 in Appendix I to Part-66.

comment

293

comment by: *Walter Gessky*

**New AMC M.A.707 (a)(2) Airworthiness review staff, 4<sup>th</sup> Bullet Point**

Change the text:

**At least one full Level 3 Course or training as specified in Part 66 in the most complex category and** knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course. These courses should be at least at the Level 1 General Familiarization as specified in Part-66, Appendix III and should cover at least one aircraft type for each subcategory (i.e. helicopter piston, helicopter turbine, aeroplane piston, aeroplane turbine) and for each type of turbine propulsion system (turbofan, turboprop).

Justification:

The proposed standard for airworthiness review staff is too low. Similar to AML C staff at least one full level 3 course should be the basis.

response *Not accepted*

These personnel are not maintaining aircraft. The tasks listed in M.A.710(c) do not require such depth of training. In addition, airworthiness review staff will be assisted by Part-66 personnel when they do not hold the Part-66 licence.

comment

328

comment by: *Sinclair Smith*

Part M Art/NR/Chapter Airworthiness Review staff - MA 707 and Associated AMC707(a)

This process will require small organisations to take on additional staff and is completely unnecessary. This will simply increase costs without any benefit

response *Not accepted*

It is not mandatory to have independent airworthiness review staff. According to AMC M.A.707(a), it is possible to nominate airworthiness review staff that has overall authority in the airworthiness management process of the aircraft that will be reviewed. This personnel may already participate in the management of aircraft.

comment

469

comment by: *CAA-NL, SCI*

From AMC M.A.707(a)(2) remove the following:

- Relevant parts of operational requirements and procedures, if applicable.

	Analogue to comment to AMC M.A.707(a)(1).
response	<p><i>Not accepted</i></p> <p>This requirements is intending to cover operational requirements that are not just applicable to one operator but to the vast majority.</p>

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.A.707 (a)(2)  
Airworthiness review staff**

p. 81-82

comment	104	comment by: <i>Ludwig Hessler</i>
	<p><b>PROPOSED TEXT:</b> This knowledge may be demonstrated by documented evidence or by an assessment performed by the competent authority or by other airworthiness review staff already authorised within the <u>an</u> organisation. This assessment should be recorded.</p> <p><b>JUSTIFICATION:</b> If the possibility exists that the competence can be demonstrated by an assessment performed by review staff already authorised within any organisation, staff of other organisations may be used by the authority to do the assessment of behalf of the authority. In the proposed case the competent authorities will need more qualified staff for this purpose.</p>	
response	<p><i>Not accepted</i></p> <p>Only the organisation employing the candidate is entitled to do it.</p> <p>This organisation is responsible for the assessment of their own personnel and it is the first one interested in their competence.</p> <p>It is not the intention to transform this into a privilege that can be used for commercial purposes by other organisations (selling the service) because this activity is not within the scope for which M.A. Subpart G have been created.</p>	
comment	228	comment by: <i>BCAA - DAE - Certification</i>
	<p>This AMC (AMC M.A. 707 (b)) seems to give too much freedom to the companies. There would be almost no control by the NAA on who performs the Airworthiness Review. The independent/objective assesment of these people is not assured.</p>	
response	<p><i>Not accepted</i></p> <p>The control is performed by means of the approved procedure (has to be approved by the competent authority) and by means of the final approval through the Form 4.</p> <p>The Agency believes that this is sufficient.</p>	

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.A.707 (c)  
Airworthiness review staff**

p. 82

comment	105	comment by: <i>Ludwig Hessler</i>
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Why are the time limits are more restrictive for airworthiness review staff in a Part-M Subpart G organisation than for certifying staff in a Part-M Subpart F organisation (six months and every twelve month period)?

-

**JUSTIFICATION:**

There is no reason why the limits should be more restrictive.

response

*Not accepted*

The comment is not understood.

The current proposal in the NPA is 6 months in every 2 years period for both Subpart F certifying staff and airworthiness review staff.

comment

294

comment by: *Walter Gessky*

**New AMC M.A.707 (c) Airworthiness review staff, last paragraph**

Change the text:

In order to restore the validity of the authorisation, the airworthiness review staff should conduct **a recurrent training on each subcategory and** at a satisfactory level an airworthiness review under the supervision of the competent authority or, if accepted by the competent authority, under the supervision of another currently valid authorised airworthiness review staff of the concerned continuing airworthiness management organisation in accordance with an approved procedure.

Justification:

Especially in cases, where the staff was only involved in one or only a few airworthiness reviews, adequate recurrent training in each subcategory is essential.

response

*Not accepted*

In the current M.A.707 there are no requirements for recent experience. It would not be consistent to ask for recurrent training when an authorisation has lost its validity.

The Agency considers sufficient to comply with the initial issuance requirements, which is the performance of a review under supervision.

comment

472

comment by: *CAA-NL, SCI*

Delete:

"...for each subcategory (i.e. helicopter piston, helicopter turbine, rotorcraft, aeroplane piston, aeroplane turbine, gliders and balloons)..."

This creates a better balance with the alternative of conducting one airworthiness review per year (without specification of the subcategory) and is considered adequate.

response

*Accepted*

AMC M.A.707(c) has been amended accordingly.

comment	616	comment by: <i>Malta Department of Civil Aviation</i>
	This AMC might look as if contradicting AMC 707(a) 5.	
response	<i>Noted</i>	
	<p>The Agency believes that the text is not contradicting for the following reason:</p> <p>AMC M.A.707(a)5 gives the option to airworthiness review staff of being independent or having overall authority. As a consequence, when you have overall authority you don't need to be independent, and it is possible to comply with the 6 month experience in continuing airworthiness management in the last 2 years, while holding an airworthiness review staff authorisation.</p> <p>This is normally the case for very small organisations, which are the ones that may not comply with the requirement of performing at least an airworthiness review per year (in the extreme case of managing only 1 aircraft, an airworthiness review may be performed every 3 years).</p>	

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.A.707(e)  
Airworthiness review staff**

p. 82

comment	473	comment by: <i>CAA-NL, SCI</i>
	AMC M.A.707(e): Copy of the authorisation to be added, as required by M.A.707(e).	
response	<i>Accepted</i>	
	AMC M.A.707(e) has been amended accordingly	

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.A.711(b)  
Privileges of the organisation**

p. 83

comment	43	comment by: <i>Austro Control GmbH</i>
	<p>Proposed text</p> <p>AMC M.A.711(b)</p> <p>It is not necessary for an organisation to be approved to carry out airworthiness reviews. This can be contracted to another appropriately approved organisation. In this case, the airworthiness review should be carried out every year, and the ARC issued by the competent authority following a recommendation.</p> <p>Justification:</p> <p>It clarifies the situation if the text is kept.</p>	
response	<i>Noted</i>	
	<p>Your proposal has been incorporated, except for the part that says: "In this case, the airworthiness review should be carried out every year".</p> <p>The reason is that there are cases where it is not necessary to do it every year due to the new proposals incorporated in this CRD for paragraphs M.A.711(a)4</p>	

and M.A.901(f).

comment 98 comment by: DGAC France

We propose to rephrase AMC M.A.711(b) as follows:

"An organisation may be approved for continuing airworthiness management only, without the privilege to carry out airworthiness reviews".

The existing text might be understood as meaning that an organisation can carry airworthiness review without being approved.

response *Partially accepted*

The intent of your comment has been incorporated, with a different wording.

comment 644 comment by: Fédération Francaise Aéronautique

AFFECTED PARAGRAPH:

[M.A 711](#)

**PROPOSED TEXT/ COMMENT:**

-

We approve the deletion of the recommendation for *aircraft of 2730 kg MTOW and bellow that not used in commercial air transport* but we agree to maintain it for imported a/c from outside EU.

Furthermore, we suggest to modify M.A 711 (page 111/144) as follows:

(b) An approve continuing airworthiness management organisation, may additionally be approved to carry out M.A.710 airworthiness reviews and:

1. issue the related airworthiness review certificate, or and,

2. make a recommendation for the airworthiness review to ~~a Member State of Registry~~ the competent authority. In the case of aircraft of 2730 Kg MTOM and below, that are not used in commercial air transport, the recommendation shall be issued only on the import of an aircraft from outside the Member States in accordance with Part-21 and M.A.904.

**JUSTIFICATION:**

The privilege of the organisation is to issue either an ARC or a recommendation : the "and" shall be replaced by a "or".

It is important to clarify that "importation" is from outside the Member States and not between States.

response *Partially accepted*

Regarding your comment on the word "and" in paragraph M.A.711(b)1, the Agency already introduced the word "and" in Opinion 06/2005 (which is pending the Commission approval).

The reason is that the organisation has the privilege for both tasks: issue airworthiness review certificates and issue recommendations. The organisation can then use any of the privileges, depending on the situation.

Regarding your comment on paragraph M.A.711(b)2, your proposal has been incorporated with a slightly different wording.

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.A.712 (f) Quality system**

p. 83

comment

44

comment by: *Austro Control GmbH*

Proposed text (keep old text)

AMC. M.A.712(f)

A small organisation is ~~considered to be~~ an organisation ~~with up to 5 staff (including M.A.706 and M.A.707 personnel)~~ managing less than 10 aircraft. This number should be decreased by 50% in the case of large aircraft. ~~The complexity of the organisation,~~ combination of aircraft and aircraft types, the utilisation of the aircraft and the number of approved locations of the organisation should also be considered before replacing the quality system by an organisational review.

~~Appendix XII should be used to manage the organisational reviews.~~

Justification

CAMOs have 90 % less than 5 Persons. It is a good idea to have a Quality System in place for these CAMOs, The organisational review is not sufficient enough, because privileges of the CAMOs will be increasing (e.g. Approving maintenance programmes, Issue of permit to fly) and it should be audited systematically.

response

*Not accepted*

The Agency does not intend to change this proposal for the following reasons:

1) AMC M.A.712(f) does not apply to commercial air transport and probably 90% of this organisations manage also less than 10 aircraft.

2) In any case, and to avoid that a small organisation tries to manage a large number of aircraft with less than 5 persons, the NPA introduced a provision in M.A.711 not allowing sub-contracting without a Quality System.

comment

172

comment by: *Derek Wilson*

Overview/Audit of processes within the CAMO concept is again way over the top for airworthiness of airport/GA. As drafted in NPA2007/08 an already approved CAMO operates with the following constraints:

The requirement for independent Airworthiness review staff (MA707) increasing the staffing requirements on all but the 'one-man CAMO'. This makes small organisations overburdened with meaningless segregation of role to the extent that additional staff will be required which within gliding in particular is not financially sustainable.

- An externally executed Quality Audit, or internal review (MA712) to be carried out at stipulated intervals.
  - The continuing obligation of an NAA to make external audits to its satisfaction at any time at the CAMO's expense.
- All of these measures are applied to an office based bureaucratic function, not even actually engaged in work on airframes increasing costs with no discernable safety benefit (see earlier comment about disregarding the comparable safety record of the deregulated BGA vs national airworthiness schemes.

response *Noted*

Refer to the explanation related to Quality Systems and Organisational Reviews existing in the Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment *180*

comment by: *Ludwig Hessler*

**The wording**

Contracting continuing airworthiness management tasks is not permitted without a Quality System" should be reconsidered and amended as follows:

"Contracting continuing airworthiness management tasks is not permitted without a Quality System unless a small organisation has established a procedure acceptable to the competent authority .

**JUSTIFICATION:**

It is felt, that small organizations need the possibility to subcontract continuing airworthiness management tasks more than organizations which have sufficient staff with adequate qualification to establish and run a quality management. The present wording seems to be a contradiction to reality in aviation industry neglecting an essential interest for small organizations.

response *Not accepted*

Sub-contracting is based on the existence of a Quality System to monitor the otherwise unapproved organisation.

In Subpart-F, the privilege of sub-contracting without a Quality System has been proposed for the following reasons:

1) It is limited to specialised services for which it can not be expected that a maintenance organisation is approved. They usually imply a huge inversion in terms of technology, facilities and qualified personnel.

2) The subcontracted organisation should meet a national standard or being accepted by the authority.

In the case of Subpart G organisations this can not be justified.

comment *234*

comment by: *BCAA - DAE - Certification*

For small organisations (up to 5 persons) in commercial air transport, the quality system is not necessary. Does this mean that the organisation can no longer sub-contract continuing airworthiness tasks ? The AMC 201 (h) 1 foresees only sub-contracting and not contracting of these tasks. Consequently, a quality system seems to be necessary ?



response	<i>Not accepted</i> For Commercial Air Transport a Quality System is always required.
comment	267 <span style="float: right;">comment by: <i>René Meier</i></span> AeCS suggests to make a difference between full-time staff, part-time staff and pilot-owner maintainers.
response	<i>Partially accepted</i> The proposal has been accepted except for pilot-owner maintenance. Pilot-owner maintenance is not related to continuing airworthiness managements, which is the subject of M.A.712.
comment	329 <span style="float: right;">comment by: <i>Sinclair Smith</i></span> ARt/Nr/Chapter Quality Systems - MA712 This will require small organisations to take on additional staff, with no additional benefit whatsoever. There will be an increase in costs with no benefit.
response	<i>Not accepted</i> The proposal in the NPA is to allow small organisations to perform organisational reviews. In such a case, there is no need for independent staff. The organisational review can be performed by staff that performs also other functions.
comment	419 <span style="float: right;">comment by: <i>Tom Snoddy</i></span> The proposed CAMO system is far to complex for operators of light aircraft and gliders. It will fill many filing cabinets with useless papers but it will divert funds from airframe and engine maintenance into pointless bureaucracy. It is not appropriate for simple aircraft and gliders and will impose large costs without any safety benefits. The process must be stopped now. Delegation to bodies such as the British Gliding Association has worked satisfactorily at low cost and has produced an excellent safety record.
response	<i>Noted</i> Refer to the different explanations in the Attachment 1 to the CRD in paragraph GENERAL ISSUES and to the consolidated version of Part-M at the end of this CRD.
comment	461 <span style="float: right;">comment by: <i>John Tempest</i></span> The definition of a small organisation being limited to 5 staff is not a sensible approach as it will lead to small organisations being constrained to a small number of staff. Instead, whatever the size of the organisation, any organisation maintaining only aircraft <= 2730 kg should not require a Quality System and should instead only require an Organisational Review. Imposing a Quality system on any organisation set up to maintain only light aircraft is over-regulation in the extreme.

response

*Not accepted*

An organisation that manages a large number of aircraft, even if they are small aircraft, can become very complex in terms of procedures, communication and control.

As such, a Quality System is required.

comment

530

comment by: *Damian LE ROUX*

Again causing un-necessary extra costs and complexity for private light aircraft flight.

response

*Noted*

Refer to the explanation related to Quality Systems and Organisational Reviews existing in the Attachment 1 to the CRD in paragraph GENERAL ISSUES.

comment

645 ❖

comment by: *Fédération Francaise Aéronautique*

AFFECTED PARAGRAPH:

M.A 712 (f)

PROPOSED TEXT/ COMMENT:

We approve (page 111/144) the first sentence : "*In case of a small M.A Subpart G organization not involved in commercial air transport .....*"

But the second sentence "*Contracting continuing airworthiness management tasks is not permitted without a Quality System*" is too short and too limitative for a NAA which would apply it to the letter. It is necessary to explain clearly in an AMC 712 (f) what means "*continuing airworthiness management tasks*". In our mind it cannot concern tasks which is there no responsibility transfer from the CAMO in charge to another CAMO.

2 examples to illustrate our propos:

1. Maintenance Programme: the rule cannot forbid a CAMO in charge to entrust a full Maintenance Programme project writing to another specialized CAMO as much as the CAMO in charge check all contents of this project before it affixes his signature.

Continuing airworthiness management computer tool: there is a probability that, to reduce costs and improve the effectiveness, some small organisations federate to quickly make a common data-processing tool lodged in a decentralized computer server. In the first time this decentralized computer would have only the mission to deal only with exclusively and separately data send by each organisation.

It would not be responsible not to allow that at term this specialized software cannot find a natural development.

They can imagine, for instance, that it will be able to redistribute automatically data received from various purveyors (EASA, NAA, TC holders, etc.). Besides evident costs reduction, replacing the classic postal mail with its delays of

distribution and its defects of transmission, they would obtain more liability and fastness what goes to safety.

Some computerized data are already available : In France the GSAC send monthly a data CDROM (FAST) to their subscribers organisations; some TC holders (ex TCM) offer an Internet site for their customer to allow them to recover technical data, avoiding so the more bulky, less dependable and more expensive paper copies.

response *Noted*

Please refer to amendment introduced in AMC M.A.712(f).

**B. Draft Rules - III. Draft Decision AMC to Part M - Appendix XII to AMC M.A.712(f)**

p. 83-88

comment

45

comment by: *Austro Control GmbH*

Proposed text (add text)

Appendix XII to AMC M.A.712(f), Pt. 3

Technical Training – Evaluators should have technical background and familiar with the technique used in the organisation.

Justification: Evaluators should have the competence to look on technical incompetence, human factors and the methods used in a CAMO.

response

*Noted*

Appendix VIII to AMC M.A.616 and Appendix XII to AMC M.A.712(f) have been simplified to better adapt them to the lower complexity of small organisations.

comment

63

comment by: *Aircraft Engineers International (AEI)*

**3. Training and experience of evaluators.**

Recurrent training - A programme for continuation training should be developed for evaluators. It should provide for evaluators, at regular intervals, to attend technical training and specific review training to gain first-hand knowledge of new developments.

-

Comment:

Add the green underlined text.

Reason:

To enable evaluators to carry out their work properly they also need regular information/training in the review and technical area. Reason the same as for comment # 62

response

*Noted*

Appendix VIII to AMC M.A.616 and Appendix XII to AMC M.A.712(f) have been simplified to better adapt them to the lower complexity of small organisations.

comment	<p>64 <span style="float: right;">comment by: Aircraft Engineers International (AEI)</span></p> <p><b>4. Organisational reviews implementation.</b></p> <p>The evaluator should analyse the CAMO's <a href="#">manual</a> to review how the organisation intends to work in a given field.</p> <p>Once the evaluators have developed a good understanding of how the system operates, the next step is to identify the critical elements which ensure that the organisation remains in compliance with the CAMO's <a href="#">manual</a>.</p> <p>Comment: Question: Is this supposed to be the organisations exposition?</p>
response	<p><i>Noted</i></p> <p>Appendix VIII to AMC M.A.616 and Appendix XII to AMC M.A.712(f) have been simplified to better adapt them to the lower complexity of small organisations.</p>
comment	<p>67 <span style="float: right;">comment by: Aircraft Engineers International (AEI)</span></p> <p><b>4. Organisational reviews implementation.</b></p> <p>Step 6: Follow-up Evaluations. To be effective, the organizational review program should have follow-up reviews any time a significant corrective action is planned. The purpose is two-fold: to confirm that the action has taken place as planned and to verify that the corrective action has been effective. If a properly implemented corrective action does not work, new alternatives should be developed as soon as possible. Keeping management aware of the results of follow-up reviews is an essential part of the program.</p> <p>Comment: There is no provision for reporting-procedures to enable reporting to the competent authority in case the CAMO does not comply with the findings of the organisational review. Such provision must be made.</p> <p>Reason: Reporting procedures assist in reporting of, and make reporting of such non-compliance situations compulsory.</p>
response	<p><i>Accepted</i></p> <p>Appendix VIII to AMC M.A.616 and Appendix XII to AMC M.A.712(f) have been simplified in order to adapt them to the lower complexity of small organisations, including provisions for reporting of findings.</p>
comment	<p>302 <span style="float: right;">comment by: ICAA</span></p> <p>Question: In a one-man CAMO can the person be the evaluator or is it required to utilise an external evaluator?</p>
response	<p><i>Noted</i></p> <p>This person can be the evaluator.</p>

comment	<p>351 comment by: <i>Swedish Civil Aviation Authority (Luftfartsstyrelsen)</i></p> <p><b>Appendix XII to AMC M.A. 712(f)</b>  Question: In a one-man CAMO can the person be the evaluator or is it required to utilise an external evaluator?</p>
response	<p><i>Noted</i></p> <p>This person can be the evaluator.</p>
comment	<p>475 comment by: <i>CAA-NL, SCI</i></p> <p>Appendix XII: Under 1, remove "and I" in "while ensuring that the subpart G and I approved CAMO remains in compliance with the requirements", as there is no I-approved CAMO; only the privilege in G: M.A.711(b).</p> <p>Similarly, under 1b, replace "Items (16) through (21) are only applicable when the CAMO has Subpart I privileges" by "Items (16) through (21) are only applicable when the CAMO has M.A.711(b) privileges"</p> <p>Under 4, replace "CAMO's manual" with "CAME" (twice: in step 1 and 2).</p> <p>Under 4 step 4 (iv), replace "maintenance organisation" with "CAMO".</p>
response	<p><i>Noted</i></p> <p>Appendix VIII to AMC M.A.616 and Appendix XII to AMC M.A.712(f) have been simplified in order to adapt them to the lower complexity of small organisations.</p>
comment	<p>585 comment by: <i>Programme Manager Europe Air Sports</i></p> <p>It is fully appreciated that small organisations are not required to implement and run a full quality system. Nevertheless, the number of people alone do not determine the size of that organisation. The criteria to define "small" caused long discussions in the M.017 group. Nevertheless, at least for aircraft below 2730 kg the fact that the organisation employs or contracts more than 5 employees does not give the justification to state it would be a large one.</p> <p>Therefore, in AMC M.A. 712 (f) remove in the brackets "and M.A, 707 personnel". Review personnel should not count when determining the size.</p>
response	<p><i>Accepted</i></p> <p>The proposed change has been introduced. However, please note that if an M.A.707 person is involved in continuing airworthiness management activities, this person will count as an M.A.706 person.</p>
comment	<p>675 comment by: <i>CAA Finland, Communications</i></p> <p><b>Appendix XII to AMC M.A. 712(f)</b>  Question: In a one-man CAMO can the person be the evaluator or is it required to utilise an external evaluator?</p>
response	<p><i>Noted</i></p>

This person can be the evaluator.

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.A.801(c) Aircraft certificate of release to service**

p. 88

comment	107	comment by: <i>Ludwig Hessler</i>
	<p>"2." Comment: Has the ICAO report of the USOAP be checked by the competent authority to make the decision, if the license is in compliance with the ICAO regulations?</p> <p>JUSTIFICATION: The reports are often published a longer time after the visits. This might cause problems for the competent authority to have up-to-date information about the compliance of licenses with the ICAO regulations.</p>	
response	<p><i>Noted</i></p> <p>If the reports are available, then it is a good practice to check them.</p>	

comment	381	comment by: <i>UK CAA</i>
	<p><b><u>PARAGRAPH: AMC.M.A.801(c) 2 b.</u></b></p> <p><u>Comment:</u> Remove references to specific ICAO annexes and replace with the actual text, which is required.</p> <p><u>Justification:</u> ICAO annexes are liable to change and are not readily available to all citizens.</p> <p><u>Proposed Text:</u> Insert the reference text extracted from ICAO Annex 6 in full.</p>	
response	<p><i>Partially accepted</i></p> <p>This AMC has been modified in order not to make reference to specific chapters or paragraphs that may be subject to change.</p> <p>However, reference to the Annexes has been kept. Introducing the applicable text of the Annex is not reasonable and, in any case, if the owner of the aircraft believes that he is going to use this provision, he should get the information in advance.</p>	

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.A.803 Pilot-owner authorisation**

p. 89

comment	108	comment by: <i>Ludwig Hessler</i>
	<p>"2." Comment: How does the pilot demonstrate his competence?</p>	

"3." Comment: The aircraft registration department has to track the changes of the owner.

**JUSTIFICATION:**

"2.": Part-66 Kat A license requires training by an approved organisation.

"3.": E. g. for sports clubs it is difficult to keep the list of all pilot-owners of an aircraft up-to-date. It might be better that all members of a sports club who are able to show their experience in maintenance for a type of aircraft are allowed to do the maintenance.

response

*Partially accepted*

2) Rejected

The list (Appendix VIII of Part M) has been compiled to exclude safety critical items and no current evidence exists to support that self assessment would produce accidents caused by Pilot-Owner Maintenance. Assessment of a pilot-owner's competence by a maintenance organisation or a licensed person or NAA was considered to be unjustified when compared against the perceived safety benefit

In addition, as described in M.A.201 (a) & (c), the owner remains responsible for the maintenance tasks performed.

Refer also to paragraph 64 of the NPA explanatory note where additional elements to the assessment of the pilot's capability are given.

The Term of reference of M-005 was not to challenge the existence of the pilot owner maintenance in accordance with Part M Appendix VIII but to improve it.

Additionally, the concept of pilot-owner maintenance is not new: sufficient experience in various European and American countries demonstrates that no significant reduction of safety level exists.

Paragraph 57 of the NPA explanatory note gives additional elements: records of accidents and accidents were scrutinized and no statistics show critical information on cases where maintenance was badly performed by any pilot-owners involved.

3) Accepted

It is true that the he aircraft registration department will have to track the changes of the owner in the case of collectively owned aircraft..

This is why it has been decided to add in AMC M.A.803 the following:

3. In the case of a jointly owned aircraft, the maintenance program should list:

- The names of all pilots competent and designated to perform pilot-owner maintenance in accordance with the basic principles described in Appendix VIII of Part M.
- the limited maintenance tasks they may perform.

An alternative would be the maintenance program to contain a procedure to ensure how such a list of competent pilots should be managed separately and kept current.

Pilot members of a flying club declared as owner or jointly owner of the aircraft may carry out pilot-owner maintenance if designated by the legal entity.

AMC M.A.803 has been improved in order to better reflect the concept.

comment

488

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

Some Member States issue licences which are lifelong valid, but the person holding the licence is entitled to exercise its privileges only, if the pilot holds a valid medical and the flight experience is current. DAeC requests to clarify that even in those cases where the person lost its privileges the person is still allowed to carry out pilot-owner maintenance. This proposal is based on proven experience in flying clubs. Pilots losing their medical fitness do usually not lose their skills towards maintenance. Allowing such persons still to carry out pilot-owner maintenance allows them to remain as a valuable member of the social community flying club without any negative impact on airworthiness of the aircraft maintained.

AMC MA.803 3. is somewhat misleading as it could read in order that the list of names of pilots designated to perform pilot-owner maintenance has to be approved by the competent authority or CAMO. The AMC should clarify that the list of names is attached to the maintenance programme by the owner without any prior approval by the competent authority or CAMO managing the aircraft.

response

*Not accepted*

Permitting a person who does not hold a valid pilot licence to perform maintenance task is clearly against the basic principles of pilot owner maintenance.

The concept is also based on the fact the pilot-owner may be the one who is going to fly the aircraft just after maintenance task have been carried out.

In this case, this experience may not be lost because the Agency is in the process of exploring in the near future the possibility to have a light maintenance licence for the lighter end of general aviation.

comment

511

comment by: *European Gliding Union (EGU)*

AMC MA.803 3. is somewhat misleading as it could read in order that the list of names of pilots designated to perform pilot-owner maintenance has to be approved by the competent authority or CAMO. The AMC should clarify that the list of names is attached to the maintenance programme by the owner without any prior approval by the competent authority or CAMO managing the aircraft.

response

*Accepted*

It is true that the aircraft registration department will have to track the changes of the owner in the case of collectively owned aircraft..

This is why it has been decided to add in AMC M.A.803 the following:

3. In the case of a jointly owned aircraft, the maintenance program should list:

- The names of all pilots competent and designated to perform pilot-owner maintenance in accordance with the basic principles described in Appendix VIII of Part M.
- the limited maintenance tasks they may perform.

An alternative would be the maintenance program to contain a procedure to ensure how such a list of competent pilots should be managed separately and



kept current.

Pilot members of a flying club declared as owner or jointly owner of the aircraft may carry out pilot-owner maintenance if designated by the legal entity.

AMC M.A.803 has been improved in order to better reflect the concept.

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.A.901(b) Aircraft  
airworthiness review**

p. 89

comment

483

comment by: CAA-NL, SCI

AMC M.A.901(b): for AOC-holders such an arrangement is not required. Suggest replacing by the following:

1. For aircraft not used in commercial air transport, if the continuing airworthiness of the aircraft is not managed according to a Part-M appendix I arrangement between the owner and the M.A. Subpart G organisation, the aircraft should be considered to be outside a controlled environment.

2. For aircraft used in commercial air transport, the AOC-holder's own CAMO is the only CAMO that can provide a controlled environment.

response

*Partially accepted*

Your proposal in paragraph 1 has been introduced.

However, your proposal in paragraph 2 is not necessary (is redundant with other paragraphs of the rule).

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.A.901(d) Aircraft  
airworthiness review**

p. 89-90

comment

156

comment by: Helge Hald, Director

AMC M.A.803 Pilot owner authorisation: In case of a jointly owned aircraft, the names of pilots designated to perform pilot owner maintenance program should be listed in this program.

In the case of e.g. clubs, this could be difficult, as members comes and goes, and the maintenance program has to be revised by every change. This should be solved, if the club can provide a list of members at a given time to whom it may concern.

response

*Accepted*

It is true that the he aircraft registration department will have to track the changes of the owner in the case of collectively owned aircraft..

This is why it has been decided to add in AMC M.A.803 the following:

3. In the case of a jointly owned aircraft, the maintenance program should list:

- The names of all pilots competent and designated to perform pilot-owner maintenance in accordance with the basic principles described in

Appendix VIII of Part M.

- the limited maintenance tasks they may perform.

An alternative would be the maintenance program to contain a procedure to ensure how such a list of competent pilots should be managed separately and kept current.

Pilot members of a flying club declared as owner or jointly owner of the aircraft may carry out pilot-owner maintenance if designated by the legal entity.

AMC M.A.803 has been improved in order to better reflect the concept.

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.A.901 (d)2  
Aircraft airworthiness review**

p. 90

comment 303 comment by: ICAA

This has to be further clarified.

response *Accepted*

Paragraph M.A.901 has been re-arranged in order to have one single paragraph (M.A.901(b)) defining "controlled environment".

As a consequence, the AMC M.A.901(d)2 proposed in the NPA is not needed anymore.

Please refer to the new AMC M.A.901(c)2 & (e)2 & (f) (please note that this is a single AMC), where the only requirement for extension is the verification of the continued compliance with M.A.901(b) (verification that the aircraft has stayed in a controlled environment for the last 12 months).

comment 352 comment by: Swedish Civil Aviation Authority (Luftfartsstyrelsen)

**AMC M.A. 901(d)2**

This has to be further clarified.

response *Accepted*

Paragraph M.A.901 has been re-arranged in order to have one single paragraph (M.A.901(b)) defining "controlled environment".

As a consequence, the AMC M.A.901(d)2 proposed in the NPA is not needed anymore.

Please refer to the new AMC M.A.901(c)2 & (e)2 & (f) (please note that this is a single AMC), where the only requirement for extension is the verification of the continued compliance with M.A.901(b) (verification that the aircraft has stayed in a controlled environment for the last 12 months).

comment 676 comment by: CAA Finland, Communications

**AMC M.A. 901(d)2**

This has to be further clarified.

response *Accepted*

Paragraph M.A.901 has been re-arranged in order to have one single

paragraph (M.A.901(b)) defining "controlled environment".

As a consequence, the AMC M.A.901(d)2 proposed in the NPA is not needed anymore.

Please refer to the new AMC M.A.901(c)2 & (e)2 & (f) (please note that this is a single AMC), where the only requirement for extension is the verification of the continued compliance with M.A.901(b) (verification that the aircraft has stayed in a controlled environment for the last 12 months).

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.B.704(b)  
Continuing oversight**

p. 92

comment

491

comment by: CAA-NL, SCI

AMC M.B.704(b)5: Replace by: "When an operator sub-contracts continuing airworthiness tasks, the operator's control over the sub-contracted organisations should be verified by the competent authority by performing audits on a relevant sample of the sub-contracted organisations in each period as specified under 4."

Note: the operator retains ultimate responsibility and as such, must have included sufficient checks and controls. Therefore, the authority resources can be used more efficiently.

response

*Partially accepted*

Your comment related to the periodicity has been incorporated in order to align with the periodicity proposed in paragraph 4.

However, the Agency still has the opinion that the competent authority should audit all the sub-contractors, since their number should be limited.

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC M.B.902(b)  
Airworthiness review by the competent authority**

p. 93-94

comment

111

comment by: Ludwig Hessler

"Surveillance of such tasks,..."

Is the meaning of these words, that an auditor of a CAMO or an AMO fulfils the requirement?

JUSTIFICATION:

In this case the competent authorities would have enough staff for the task, but in our opinion such a qualification is not sufficient to do the airworthiness review by the competent authority

response

*Partially accepted*

The proposal in AMC M.B.902(b) has been amended in order to state "an appropriate combination of experience...", in order to make sure that the experience is not limited to maintenance or to continuing airworthiness management or to surveillance of activities.

**B. Draft Rules - III. Draft Decision AMC to Part M - AMC to Appendix VIII**

p. 95

<b>"Limited Pilot Owner Maintenance"</b>	
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comment	30	comment by: <i>Peter Clay</i>
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Most switches in gliders are soldered connections.  
It would be expected that soldering would be part of owner maintainance

response	<i>Partially accepted</i>	
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Sailplanes and powered sailplanes are certified in accordance to CS22, which is capable for Day VFR use only. Some countries may have permitted limited night flights, but this very rare. The electrical systems in sailplanes and powered sailplanes are in general not as powerful as in airplanes and helicopters, simply by the matter that only limited electrical power recourses are available. It was standard practice that non critical, non required equipment is installed by the pilot owner. Up to now electrical fires in sailplanes or powered sailplanes are very rare.

This also includes soldering or crimping of wire connections in such systems, if described in the instructions for continuing airworthiness.

As long as the equipment is not a required equipment (defined in the AFM) it is clear that this is POM. It was agreed that the wording installation may be misleading regarding the installation approval requirements in part 21, which are unchanged, also for the installation of standard parts.

New sailplane designs with electrical powered engines are in general excluded, because this is a required system and does contain high currents.

comment	39	comment by: <i>Austro Control GmbH</i>
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Proposed new text  
Appendix VIII to AMC M.A.616, Pt. 3  
Add next text:

**Technical Training – Evaluators should have technical background and familiar with the technique used in the organisation.**

Justification:  
Evaluators should have the competence to look on technical incompetence, human factors and the methods used in an Part M (F) organisation.

response	<i>Noted</i>	
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The concept of "self assessment" for the pilot-owner maintenance has been retained.

comment	69	comment by: <i>Aircraft Engineers International (AEI)</i>
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**AMC to Appendix VIII "Limited Pilot Owner Maintenance"**

".....and thus would not qualify for pilot owner maintenance. Therefore the maintenance carried out by the pilot owner cannot be generalised to specific inspections such as 50 Hrs, 100 Hrs or 6 Month periodicity, provided it does not constitute an annual inspection.

Comment A (green underlined text): Add this sentence.

Reason:

If also annual inspections will be allowed under this Pilot Owner (PO) maintenance scheme this will have a very detrimental effect on safety that is two fold. Firstly PO maintenance will never be as safe as maintenance carried out by properly trained motivated and experience maintenance personnel. Secondly many small maintenance organisations that today carry out these inspections will have to close down (negative social aspect in addition), which then leaves only a few such maintenance organisations that might survive, thereby reducing the opportunities for safe maintenance being able to be carried out even further in the future.

response *Not accepted*

The strategy of the rulemaking group was not to include or exclude a specific check: checking the content of a maintenance check with the content of Appendix VIII to M.A.803 in association with the 10 basic principles was preferred because for some type of aircraft, a maintenance check may be considered to have safety related tasks although for some other types, it would be acceptable the competent pilot-owner to perform a maintenance check.

A technical analysis of the maintenance check's content by the pilot-owner is therefore a better approach

In addition, the wording "Annual Inspection" is not defines in part M. It is a US wording for an inspection identically used for the part M "AR airworthiness review", which is completely different and cannot be carried out by the Pilot Owner.

The general concept of the Pilot Owner maintenance is, that all listed tasks may be carried out by the PO, irrespective of the inspection and the interval

comment 70

comment by: *Aircraft Engineers International (AEI)*

**AMC to Appendix VIII "Limited Pilot Owner Maintenance"**

....."The Inspections to be carried out are limited to those areas and tasks listed in the Appendix; ~~this allows flexibility in the development of the maintenance programme and does not limit the inspection to certain specific periodic inspections. A 50 Hrs /6 Month periodic inspection for a fixed wing aeroplane as well as the one year inspection on a glider may normally be covered in the maintenance programme.~~

Comment B (~~red stricken through text~~): Delete this sentence.

Reason:

This is to prevent a maintenance programme being developed that bypasses or replaces the periodic inspections thereby reducing flight safety and reducing the viability of Part F and or small professional maintenance organisations.

response *Noted*

EASA understand the general nature of the comment (full objection to the concept). Refer to comment n°301 and to the explanatory note of the NPA.

comment 166 comment by: *SITEMA – Sindicato dos Técnicos de Manutenção de Aeronaves*

**SITEMA is tottally against this in its present form.**

However, we are able to discuss further, if the contents includes the exclusion provided it does not constitute an annual inspection AND the following text is removed from sentence: *The Inspections to be carried out are limited to those areas and tasks listed in the Appendix ~~this allows flexibility in the development of the maintenance programme and does not limit the inspection to certain specific periodic inspections. A 50 Hrs /6 Month periodic inspection for a fixed wing aeroplane as well as the one year inspection on a glider may normally be covered in the maintenance programme.~~*

**JUSTIFICATION:**

If we look at n.9 and n.10 of the Appendix, we will see that the available contents throughout the manufacturers/TCH are not standardized. Thus it is their responsibility to issue a schedule for each type of inspection. Many times the contents are safety related, needing the use of specific tools and knowledge, and cannot be generalised. Therefore, the PO cannot perform inspections such as 50 Hrs, 100 Hrs or 6 Month periodicity. Also, PO maintenance will never be as safe as maintenance carried out by properly trained, motivated and experienced maintenance personnel. Secondly, many small maintenance organisations that today carry out these inspections will have to close down (negative social aspect in addition), which then leaves only a few such maintenance organisations that might survive, thereby reducing the opportunities for safe maintenance being able to be carried out even further in the future. At SITEMA we cannot accept a maintenance programme being developed that bypasses or replaces the periodic inspections thereby reducing flight safety, not to mention the strong negative impact it would have on a Part F and or on a small professional maintenance organisation.

response *Not accepted*

In addition to Part M requirement and particularly to M.A.402 and M.A.803, several basic principles have been developed before any task is carried out under the term of pilot-owner maintenance.

To specifically answer to the exemple given in the comment, any use of specific tool exclude the task to be considered as a pilot-owner maintenance because of one of thebasic principle : "Task may not be carried out as pilot-owner maintenance in the case of:

- a need to use special tools, calibrated tools (except torque wrench) and/or;
- a need to use test equipments or special testing (e.g. NDT, system tests or operational checks for avionic equipment) and/or
- any unscheduled special inspections (e.g. heavy landing check)."

EASA understand the general nature of the comment (full objection to the concept). Refer to comment n°301.

comment 310

comment by: *peter GRAY*

P70 para 32.

Adjustment of hydraulic brake systems should be included in allowed procedures. Performing other allowed tasks such as replacing pads and springs will entail adjustment so why only " simple mechanical systems"?

response

*Not accepted*

Hydraulic brake systems on sailplanes normally do not need any adjustments. Replenishments of hydraulic fluid is already in the POM List included.

On the other hand mechanical systems may need often simple adjustments of the Bowden cable.

comment

338

comment by: *Nayak Aircraft Services*

**CRD-1 Pilot Owner Maintenance Appendix VIII**

-

Point 1ff (page 61) It is absolute not exceptable that the statement from the owner is enough that he is competent and familiar with maintenance practice.

How and who will it be monitored and checked by evidence ?

From the financial point every ower will be familiar to safe money.

The current maintenance documentation must be avialable they will cost a lot, and most only present in english language.

How and who shall be checked revision status of documentation ?

How and who shall be checked the language possibilities ?

response

*Not accepted*

1) self-assessment

The list (Appendix VIII of Part M) has been compiled to exclude safety critical items and no current evidence exists to support that self assessment would produce accidents caused by Pilot-Owner Maintenance. Assessment of a pilot-owner's competence by a maintenance organisation or a licensed person or NAA was considered to be unjustified when compared against the perceived safety benefit

Refer also to paragraph 64 of the NPA explanatory note where additional elements to the assessment of the pilot's capability are given.

Additionally, the concept of pilot-owner maintenance is not new: sufficient experience in various European and American countries demonstrates that no significant reduction of safety level exists

2) Before introducing the 10 basic principles in Appendix VIII, it is recalled that the Pilot-Owner must comply with "the Part M requirements and particularly to M.A.402". It includes:

- understanding of the documentation,
- availability of the documentation at the latest revision,
- etc

In addition, as described in M.A.201 (a) & (c), the owner remains responsible for the maintenance tasks performed.

If the pilot-owner is not competent for the task to be carried out, the task cannot be released by the pilot-owner. Therefore, it is the pilot's choice to receive training if he wants to gain competency in order to perform pilot-owner

maintenance tasks.

3) The concept is also based on the fact that the pilot-owner may be the one who is going to fly the aircraft just after the maintenance tasks have been carried out.

4) M.A.710 acts as a safety net: to satisfy the requirement for an aircraft airworthiness review (M.A.901), a full review of the aircraft records shall be carried out either by the CAMO or the NAA. During that process, documentation, level of English, Part M knowledge etc will be checked. Competency will be appreciated.

In the case of incorrect performance of pilot-owner maintenance the CAMO or the NAA may not be in a position to renew or extend the aircraft's Airworthiness Review Certificate (ARC).

comment 384

comment by: UK CAA

**PARAGRAPH: AMC to Appendix VIII**

This new AMC needs rewording, as we do not fully understand its intent. Our interpretation is that if there are complex / safety critical tasks or tasks which require special tools or knowledge, they are not appropriate for inclusion in this section for pilot maintenance.

Justification:

Clarification is required.

Proposed text:

Tasks which are complex, safety critical and / or requiring special tools / knowledge are not allowed to be carried out by the pilot owner. When one of these tasks is included in a 50-hour inspection the pilot owner must have the task certified by an appropriately qualified person.

response *Not accepted*

Provisions already exist.

Refer to the basic principles described in Appendix VIII to M.A.803: as example, refer to basic principle about the use of tools:

"Task may not be carried out as pilot-owner maintenance in the case of:

- a need to use special tools, calibrated tools (except torque wrench) and/or;
- a need to use test equipments or special testing (e.g. NDT, system tests or operational checks for avionic equipment) and/or
- any unscheduled special inspections (e.g. heavy landing check)."

Complex tasks are already listed in Appendix VII to Part M.

comment 597 comment by: SNMSAC Syndicat National des Mécaniciens Sol de l'Aviation Civile

**NPA 2007-08 page 95**

**AMC to Appendix VIII "Limited Pilot Owner Maintenance"**



Regarding Basic principles N° 9 and N° 10 shown in Appendix VIII, the following applies:

Therefore the maintenance carried out by the pilot owner cannot be generalised to specific inspections such as 50 Hrs, 100 Hrs or 6 Month periodicity.

*Comment:* At the end of the sentence above it must be added **"these periodic inspection shall not be part of the annual inspection"**

*Reason:* If the STC maintenance programme shall be modifying to include all as part of the annual program it shall be a badly effect:

- on aircraft safety if done by PO whose haven't proper maintenance experience as well as technicians.
- on social issues for small maintenance organisation employ.

response *Not accepted*

Refer to comment n°166

**ATTACHMENT 1: Consolidated version of the paragraphs affected by CRD 07/2005 and this NPA (for reference only)**

p. 96-144

comment 21 comment by: *Ted Norman*

Can you send a u/s component away if it does not belong to you I think not. It belongs to the owner they will decide its future.

response *Noted*

The reference to the M.A.502 organisation has been removed because the component can also be removed and stored by a Part-145 organisation or by an "A-rated" Subpart-F organisation.

It has been included the possibility to transfer the component to the owner under certain conditions. See M.A.504.

comment 22 comment by: *Ted Norman*

I think you are living in another world if you think work orders are all going to be written. All this type of rule ensures is that large amounts of work are done without record or notification. When serial numbers etc do not match then hands are thrown in the air and it is blamed on a transposition error or something similar. Lets get real guys allow for a verbal work order.

response *Noted*

It would not seem safe that after a snag occurs on an aircraft in flight, that nothing would be recorded in its documentation, or when a scheduled task is due, that this would not be formally requested and recorded.

The intent in AMC M.A.610 is to simplify the life in general aviation as much as possible, compared to the rule as it stands currently. The minimum act when a snag occurs to an aircraft part or system, is to record it, at least in the log-book of the aircraft. As stated in the AMC, this would be an acceptable method for ordering the repair of it.

comment 25 comment by: *Enrico GIANOTTI*

	AMC M.A. 707 (b) should also define a period to apply again for a failed supervision.
response	<p><i>Not accepted</i></p> <p>In the current M.A.707 there are no requirements for recent experience. It would not be consistent to ask for recurrent training when an authorisation has lost its validity.</p> <p>The Agency considers sufficient to comply with the initial issuance requirements, which is the performance of a review under supervision.</p>
comment	<p>26 <span style="float: right;">comment by: <i>Enrico GIANOTTI</i></span></p> <p>M.A. 712 The alleviation for CAMO that has no privilege to perform ARC to sub-contract such activity is deleted from the requirement of a Quality System (economical point of view).</p>
response	<p><i>Noted</i></p> <p>The quality system may be replaced by organisational reviews in case of a small CAMO not dealing with commercial air transport aircraft and not performing airworthiness reviews for aircraft above 2730 Kg MTOM. An organisational review is a lighter process than a quality system.</p> <p>Subcontracting continuing airworthiness management activities can only be done with a Quality System in place.</p>
comment	<p>27 <span style="float: right;">comment by: <i>Enrico GIANOTTI</i></span></p> <p>AMC M.A. 801 (c) 2 Why you refer to ICAO certifications not available on consultation on the web?</p>
response	<p><i>Noted</i></p> <p>ICAO annexes are not published on the web site of ICAO, however they are available free on request.</p> <p>Most of national authorities provide also help in getting part of ICAO Annexes. See also reply to comment 381.</p>
comment	<p>28 <span style="float: right;">comment by: <i>Enrico GIANOTTI</i></span></p> <p>Appendix I para 5.1</p> <p>In the obligations of the approved organisation it is important to define the common rules for CAMOs when, during the airworthiness review, discrepancies are found (i.e. maintenance/AD performed later than requested in the maintenance program).</p>
response	<p><i>Accepted</i></p> <p>Refer to consolidated text in Part-M, Annex 1 paragraph 5.1. item 2.</p>
comment	<p>76 <span style="float: right;">comment by: <i>Sat-Heli</i></span></p> <p>M.A. 801 (c)</p>

Too much complex and unrealistic.

how the pilot will check if the peron have really 3 years of experience ?

how the pilot will check if the person really hold the proper qualification of his own state ?

How the delay of 7 days could be respected for a far away aircraft ?

Much more realistic and practiced in the true life. the owner contact his CAMO first , the CAMO check with the supposed qualified person if he could do the job safely and or define limitations in regard of subject.

If the CAMO can't be contacted before any action, the owner can authorize any qualified person, but must advise his CAMO within the 3 CAMO opening office days.

The CAMO decide if further recheck and therefore release to service by authorized MA801b peron or part F or part145 is necessary and under what delay have it performed.

response

*Noted*

The owner can at any moment contact his contracted CAMO if he wants that the CAMO performs the verification of the qualification.

Obviously, if the owner does not have a contract with a CAMO or can not reach the CAMO, he has to do the assessment himself. In this case, your proposal is that the owner authorises any qualified person, which is exactly our proposal.

comment

79

comment by: *DGAC France*

In the consolidated version, the new M.A.201(e) is redundant with MA.201 (a) which already states that the owner "is responsible for the continuing airworthiness of an aircraft".

Basic responsibilities should be kept in M.A.201(a) and M.A.201(e) should be limited to contracting to an approved organisation.

We thus propose to modify the new M.A.201(e) as follows :

"In order to satisfy the responsibilities of paragraph (a) ~~the owner of an aircraft shall ensure the proper accomplishment of the tasks associated with the continuing airworthiness. Alternatively,~~ the owner of an aircraft may contract the tasks associated with the continuing airworthiness to an approved continuing airworthiness management organisation as specified in M.A. Subpart G (continuing airworthiness management organisation hereinafter) in accordance with Appendix I. In this case, the continuing airworthiness management organisation assumes responsibility for the proper accomplishment of these tasks."

response

*Not accepted*

The intention of the paragraph is to make more clear that the owner has the choice to manage the airworthiness of the aircraft himself or to contract a CAMO.

comment	<p>80 <span style="float: right;">comment by: <i>DGAC France</i></span></p> <p>In the consolidated version we propose to modify M.A.302(a) as follows :</p> <p>"(a) The maintenance of the aircraft shall be organized in accordance with a maintenance programme, <del>which shall be periodically reviewed and amended accordingly</del>"</p> <p>Requirement for periodic review of the maintenance programme is already included in M.A.302(f)</p>
response	<p><i>Accepted</i></p>
comment	<p>82 <span style="float: right;">comment by: <i>DGAC France</i></span></p> <p>Following discussions we organised in France on proposed M.A.302, it seems that there may be some confusion on what is considered as instructions for continuing airworthiness issued by the TC holder and what is included in "applicable mandatory regulatory requirements addressed in documents issued by the TC holder".</p> <p>the ICA as defined by Part 21.A.61 contains Certification Maintenance Requirements, Airworthiness Limitations Items which is mandatory information, but also information which is not mandatory. The TC holder may issue "mandatory" SBs which are not subject to Airworthiness Directives. An AMC would be useful to provide clarification on information to be considered when establishing the maintenance programme and information to be included.</p>
response	<p><i>Not accepted</i></p> <p>The paragraph 2.1 of Appendix I to AMC M.A.302 and 301(b) (Content of a maintenance programme) describes on what a maintenance programme should be normally based.</p> <p>A TCDS usually refers to the TC holders instructions or manuals.</p> <p>If the owner has a contract with a CAMO, this organisations has to define in the CAME the policy for the management of Service Bulletins and TBO, based on the instructions provided by the TC and STC holders.</p> <p>The exposition should describe (see Appendix V to AMC M.A.704):</p> <ul style="list-style-type: none"> <li>- in Chapter 1.2 the policy for the issuance of a Maintenance programme including which instructions and recommendations are taken in consideration,</li> <li>- in Chapter 1.6: the policy for the management of non mandatory modification embodiement including Service Bulletins.</li> </ul>
comment	<p>84 <span style="float: right;">comment by: <i>DGAC France</i></span></p> <p>We consider that Safety Information Bulletins issued by the Agency constitute part of the maintenance data that should be available and thus we propose to add them as a 5th bullet in M.A.401(b)</p>
response	<p><i>Not accepted</i></p> <p>Opinion 6/2005 (which is pending the approval of the Commission) already introduced in M.A.401(b)1 the following:</p>

- any applicable requirement, procedure, standard or information issued by the competent authority **or the Agency.**

comment 85 comment by: *Ludwig Hessler*

... Aircraft used ~~in commercial air transport and~~ by an owner which holds an AOC in accordance with M.A.201 (g) to (i) or aircraft above 2730 kg MTOM,...

Use the wording, because **all** aircraft used by an organisation which holds an AOC should be treated under the conditions mentioned in (c).

response *Not accepted*

The opinion of the Agency is that Commercial Air Transport has higher risks and liabilities than other operational activities and, as a consequence, the requirements should not be the same.

comment 86 comment by: *DGAC France*

We propose to modify M.A.504(b) as follows:

(b) Until a decision is made on their future status, unserviceable components shall be identified and stored in a secure location under the control of

**(1) ~~the M.A.502~~ an approved organization, or**

**(2) an independent MA.801 (b).2 certifying person, provided the secure location is accessible to the competent authority.**

1) There is no reason that only component maintenance organisation should be authorised to store unserviceable components. Any approved maintenance organisation that has a procedure to store components is satisfactory to achieve the goal, and it shall be at the choice of the a/c owner to decide which one can store a component for him.

2) The case of a release to service performed independently under MA 801 b 2 should also be considered. We consider that the solution of the M.A.801(b)(2) being under the control of an approved organisation is not practicable.

3) In addition, it should be noted that it is frequent practice to send back to dealers/manufacturers removed parts in order to purchase new parts at a lower cost under an "exchange system". In such a process the organisation does not have control of the location of the removed part, nor does it know what the manufacturer does with returned components (destroyed, refurbished, overhauled)

Although we understand the purpose, we fear that the proposed text may be incompatible with this wide spread practice.

response *Partially accepted*

M.A.504 has been amended in order to include the possibility to transfer an unserviceable component to the owner under certain conditions.

comment 88 comment by: *DGAC France*

**It is requested to postpone the applicability date of M.A. 607, for aircraft not involved in commercial air transport with a MTOM of 2730 kg and below, three years after publication of amendment to Part 66 providing for alleviated requirements for certifying staff for these aircraft.**

Two NPAs (NPA 2007-04 et 2007/07) are thoroughly impacting certifying personnel qualification requirements. But also, working group 66-002 intends to considerably simplify the qualification requirements for personnel in charge of releasing aircraft lighter than 1 tonne (ELA1) or lighter than 2 tonnes (ELA2). Those categories will cover a major part of general aviation fleet for ELA1 and ELA2 will be most of the remaining two thirds.

In the near future, more than 10% certifying staff may have to be renewed each year. Taking into account the average age of such personnel which is relatively high, and the fact that a lot of them express their will to cease functions rather than to comply with Part M's too demanding qualification requirement level, DGAC estimates that within three years of Part 66 applicability, more than a third of certifying staff will have to be renewed.

As personnel perceive that the Commission and the Agency wish to simplify as soon as possible the qualification requirements, personnel are waiting for those new requirements and there are very few B1.2 graduating from 147 organisations.

After such new regulation is published, training organisation and French school system will need time to set up programmes and classes and provide organisation with young graduates. A three years transition seems necessary after regulation adoption.

Otherwise, we will suffer a lack of one third of certifying personnel who will resign performing their current activities.

*Note : see also and MA606(g) words linked to Part 66 if our comment to merge the sentence within MA 607 were to be rejected.*

response *Partially accepted*

New paragraphs M.A.606(h) and M.A.801(d) provide for 1 additional year (until 28 September 2009) where certifying staff can be qualified in accordance with national rules for aircraft not involved in commercial air transport other than large aircraft.

However, it is not the intention of the Agency to propose a 3 year derogation which would apply to every Member State.

If any particular Member State provides proper justification for an operational need of limited duration, this can be addressed through the corresponding flexibility provision in Article 10.3 of the Basic Regulation.

comment 89

comment by: *DGAC France*

In the consolidated proposal, we propose to modify M.A.610 as follows :

« M.A.610 Maintenance work orders

Before the commencement of maintenance a written work order shall be agreed between the organisation and the **organisation person** requesting maintenance to clearly establish the maintenance to be

	<p>carried out. »</p> <p>It is common legal practice to use the term "person" when referring both to organisations and individuals. The maintenance may be requested either by a subpart G organisation or by an aircraft owner.</p>
response	<p><i>Not accepted</i></p> <p>The term "organisation" was selected on purpose in order to cover all cases.</p> <p>As defined in EC2042/2003, Article 2, "organisation" means a natural person, a legal person or part of a legal person.</p>
comment	<p>91 <span style="float: right;">comment by: DGAC France</span></p> <p>In the consolidated version of M.A.711 (b) 2,</p> <p>1) "competent authority" should be used instead of member State to be consistent with the rest of Part M;</p> <p>2) the second sentence is more an explanation than a requirement.</p> <p>We thus propose</p> <p>a) to modify M.A.711 (b) as follows</p> <p>"(b) An approved continuing airworthiness management organisation, may additionally be approved to carry out M.A.710 airworthiness reviews and:</p> <p>1. issue the related airworthiness review certificate, <u>or and</u>,</p> <p>2. make a recommendation for the airworthiness review to <del>a Member State of Registry</del> <u>the competent authority</u>. <del>In the case of aircraft of 2730 Kg MTOM and below, that are not used in commercial air transport, the recommendation shall be issued only on the import of an aircraft in accordance with Part 21 and M.A.904.</del>"</p> <p>b) to add the following Guidance Material to M.A.711</p> <p>"In the case of aircraft of 2730 Kg MTOM and below, that are not used in commercial air transport, recommendations following an airworthiness review are only required following import of an aircraft in accordance with Part-21 and M.A.904".</p>
response	<p><i>Partially accepted</i></p> <p>Your comment regarding the "competent authority" has been accepted.</p> <p>Regarding the second sentence, it was introduced in order to make clear the rule without having to go through different paragraphs of the rule. However, transferring it to the AMC material may lead someone to think that they can deviate from it, which is not the case.</p> <p>As a consequence, the Agency retains this sentence in paragraph M.A.711(b)2.</p>
comment	<p>106 <span style="float: right;">comment by: Ludwig Hessler</span></p> <p>Why are the time limits are more restrictive for airworthiness review staff in a Part-M Subpart G organisation than for certifying staff in a Part-M Subpart F</p>

organisation (six months and every twelve month period)?

Justification:

There is no reason why the limits should be more restrictive.

response *Noted*

There is no difference for the period of validity of an airworthiness review staff and of a certifying staff, as:

- for airworthiness review staff, in order to keep the continued validity of the airworthiness review, they should be involved in continuing airworthiness management activities for at least six months in every two year period for each subcategory,
- for certifying staff, in order to keep the continued validity of their certifying authorisation, they should have 6 months of experience in every two years period.

comment *118*

comment by: *European Sailplane Manufacturers*

The European sailplane manufacturers were not directly participating in the rulemaking group drafting the new list of pilot owner maintenance tasks which are now listed for sailplanes & powered sailplanes in the NPA 2007-08.

Nevertheless the rulemaking group approached the sailplane manufacturers and provided them with a first draft which was then re-drafted / amended by the manufacturers.

Nevertheless the manufacturers feel still not happy with the new list.

The main reason is the basic disagreement between EASA / rulemaking group members and manufacturers about the nature of this list.

The manufacturers feel that this list is now much better and detailed and therefore an improvement but that it must be always considered as a "list of examples" which could / should supply the pilot owner / authorities with answers what is possible under pilot maintenance.

It must not be seen as a "list of definitive tasks" because the feasibility of conducting a certain task / releasing to service by the pilot owner is very much dependant on the particular design of the aircraft involved.

Examples:

No. 24 "Batteries and solar panels - Replacement and servicing...Yes / Yes / Yes (for sailplanes/self-sustainers/self-launchers)".

This task really should be possible for the pilot owner for most (powered/non-powered) sailplanes because otherwise regular flight operation (where the battery is replaced quite often) would become a pain for the pilots. BUT there are designs where this might simply not be the case! What about an electrically driven motor glider - here the battery is definitely a very sensitive piece of equipment. Or simply a battery requiring certain precautions exceeding "normal" pilot owner skills?



No. 27 "Gas Dampener - Replacement of Gas Dampener in the control system or air brake system...Yes / Yes / Yes".

Again a task which eases the burden on the operators if it can be performed by the pilot owner. And again a task which in some cases is really only something for specialised maintenance people.

No. 71 "Removal or installation of power plant including engine and propeller...N/A / Yes / No".

Here the rulemaking group was informed that there are indeed self-sustainers operated in large numbers where the engine removal/installation may indeed be done by the pilot owner. BUT there are also self-sustainers around where this task is off limits for pilot owners... And there are some self-launching types where the engine removal/installation may also be done by the pilot owner.

So what is the conclusion:

The manufacturerers do not wish to change the list - it is really now much better than before and gives a good "feeling" what should be possible and what not.

The manufacturerers wish to get into Part M / Appendix VIII the following wording:

**The TC holder may be able to amend/change the list of pilot owner maintenance tasks for his own type of aircraft by putting according wording into the flight manual / maintenance manual.**

Rationale:

The TC holder is the really competent authority (in the literal sense) to decide whether the pilot owner is up to a particular task on this particular aircraft.

EASA representatives negated this concept several times - they only agreed that tasks placed under "normal flight operations" in the flight manual might be additionally allowed for the pilot and tasks requiring special tools might be taken away from pilot owner responsibility.

Will this lead to funny flight manuals where maintenance tasks will be placed under "normal flight operations" only to overrule Annex VIII or where new special tools are been invented to prevent the pilot owner to do some tasks - the manufacturerers hope not.

response

*Not accepted*

The TC holder cannot drive PART M.

Part M in principle regulates by whom and under which provisions maintenance has to be carried out. Equal treatment is one of the main principles, this cannot be ensured if the TC Holder can amend and change the task list.

The TC Holder has to establish the AFM and the AMM in accordance to CS22 and the certification may lead to an Airworthiness limitation if the task is critical

for airworthiness.

This is why the basic principles contain the following provisions in Appendix VIII to Part M:

- The maintenance instructions of the TC holder as expressed in the maintenance manual and instructions for continuing airworthiness are to be considered in developing the maintenance programme; however, these requirements cannot override the generic lists in Part "A" to "D".

- Any task described in the aircraft flight manual as preparing the aircraft for flight (Example: assembling the glider wings or pre-flight), is considered to be a pilot task and is not considered pilot-owner maintenance and therefore does not require a Certificate of Release to Service.

comment 128

comment by: DGAC France

The consolidated version of M.A.202(a) requires that "Any person or organisation responsible under M.A.201 shall report to the competent authority of the State of registry, the organisation responsible for the type design or supplemental type design and, if applicable, the Member State of operator, any identified condition of an aircraft or component that hazards seriously the flight safety."

Even though we understand this proposal we consider that further work is needed on this question to clarify a number of questions such as :

- Is it necessary to align Part M requirements and Part 145.A.60 requirements which requires that "The organisation shall report to the competent authority, the state of registry and the organisation responsible for the design of the aircraft or component any condition of the aircraft or component identified by the organisation that has resulted or may result in an unsafe condition that hazards seriously the flight safety."
- What should be the process when a Subpart G organisation identifies an unsafe condition due to a subpart F organisation ?
- What are the connection of this regulation with Directive 2003/42 which is only applicable to Turbine Powered and Public Transport aircraft, in particular regarding conditions for protection of information ?

response *Noted*

The reporting requirements for a Part-145 organisation are the following:

- 1) Report to its competent authority, the state of registry and the organisation responsible for design of the aircraft/component (see 145.A.60(a)).
- 2) Report to the owner/operator/CAMO (see M.A.202(c)).
- 3) Report to the Member State of the operator (see M.A.202(a)).

The reporting requirements for a Subpart F organisation are the following:

- 1) Report to the state of registry, the organisation responsible for design of the aircraft/component and the Member State of the operator (see M.A.202(a)).
- 2) Report to the owner/operator/CAMO (see M.A.202(c)).

The reporting requirements for a Subpart G organisation (CAMO) are the following:

1) Report to the state of registry, the organisation responsible for design of the aircraft/component and the Member State of the operator (see M.A.202(a)).

We agree that some alignment may be needed because the Member States of the Subpart F and Subpart G organisations are not informed (not a problem for commercial air transport, since maintenance is done in a Part-145 and the Member State of the CAMO is the same as the Member State of the operator).

Nevertheless, the requirements for exchange of information between Member States should address many of these issue.

Regarding the question of the connection with Directive 2003/42/EC, it is true that this one applies only to public transport aircraft and turbine-powered aircraft.

In regulation EC2042/2003 there are no provisions of protection of information, however, it is a good practice to apply the same principles as in 2003/42/EC.

The Agency believes that these issues are outside the terms of reference of the task and can be addressed at a later stage if a Rulemaking Task is agreed.

comment 129 ❖

comment by: DGAC France

As written, the proposed M.A.709 in the consolidated version could be interpreted as meaning that a CAMO may be approved with no documentation at all until it has a customer, whereas the objective was probably to clarify that the CAMO need only have the "generic" documentation for the aircraft types in its scope of approval, whilst the data specific to an individual aircraft could be provided by the costumer at the time of the contract. The DGAC proposal makes that more clear and relates this issue with the one of "baseline" and "generic" maintenance programmes

See also our comment on M.A.302

We thus propose

1) to modify M.A.709 as follows

"(a) The approved continuing airworthiness management organisation shall hold and use applicable current M.A.401 maintenance data in the performance of M.A.708 continuing airworthiness tasks. ~~In the case of customer provided maintenance data, it is only necessary to have such data when there is a contract with such customer, with the exception of the need to comply with M.A.714.~~

**(b) If the continuing airworthiness management organisation does not have any aircraft under contract for part of the approved or requested scope of work, then for this part of the scope of work:**

**(1) the continuing airworthiness management organisation shall develop "baseline" and/or "generic" maintenance programmes as**

follows:

- **"Baseline" maintenance programme:** it is a maintenance programme developed for a particular aircraft type following the maintenance review board (MRB) report, where applicable, and the TC holder's maintenance planning document (MPD), the relevant chapters of the maintenance manual or any other maintenance data containing information on scheduling.

- **"Generic" maintenance programme:** it is a maintenance programme that may be developed to cover similar types of aircrafts. These programmes shall be based on the same type of instructions as the baseline maintenance programme.

~~(2) In the case of customer provided maintenance data,~~ it is only necessary to have **such the maintenance data necessary to develop the baseline and/or generic maintenance programmes when there is a contract with such customer,** with the exception of the need to comply with M.A.714 **for aircraft previously under contract."**

2) to add a new AMC M.A.709(b) as follows:

#### **AMC M.A.709 Documentation**

**"Examples of "generic" maintenance programmes could be UK LAMS, Cessna 100 Series....**

**"Baseline" and "generic" maintenance programmes are not applicable to a particular aircraft registration mark, but to an aircraft type or group of types, and should be available to the competent authority prior to the initial approval and prior to the extension of the scope of an existing organisation approval.**

**After this initial approval, when an owner/operator is contracted, the baseline or generic maintenance programme, as applicable, is amended in order to incorporate the additional maintenance tasks and to indicate those that are not applicable to a particular aircraft registration mark. This may be performed by means of an Annex to the baseline/generic maintenance programme for each aircraft registration, specifying which tasks are added and which are not applicable.**

**Continuing airworthiness management organisations may seek authorisation for indirect approval in order to perform the amendments to the maintenance programme mentioned above. There is no need to change the applicable Form 14 each time a maintenance programme is amended. Only the reference to the baseline/generic maintenance programme should be included in Form 14."**

3) to introduce an AMC to M.A.714 as follows

**"In the case of customer provided data, after the contract is cancelled, the organisation shall keep in its records a copy of the customer data which was used to perform continuing airworthiness management while under contract"**

response

*Accepted*

See modified text in M.A.709 and AMC M.A.709.

comment

137

comment by: *DGAC France*

In the consolidated version we are concerned by the requirements related to maintenance release in remote areas. Although this subject was addressed by NPA 2005/07 the discussions raised by this NPA 2007/08 led us to reconsider the question and we would appreciate if you could address the following in addition to the comments already provided at the time of NPA 2007/05 :

1) we believe that the deletion of existing M.A.607(b) should be reconsidered. We understand that questions were raised on this paragraph because it was considered not flexible enough especially in case the Subpart F organisation could not be reached. However if the pilot can have contact with the subpart F organisation which is usually maintaining the aircraft, we consider that there is no reason why it should not have a privilege similar to that given to Part 145 organisations in 145.A.30(j), and that a good maintenance organisation should be able to assess the qualification of maintenance personnel and provide them with applicable maintenance data and procedures to be used on the aircraft it maintains usually.

2) The proposed M.A.801 is considered complex and still raises some questions such as :

- is the "owner" to be understood as the one who owns the aircraft or as the person responsible for continuing airworthiness under M.A.201 ?
- Is a recheck within 7 days reasonable for any maintenance under any circumstance ?

We believe that a more simple approach should be defined for non complex maintenance tasks.

response

*Noted*

The owner can at any moment contact his contracted CAMO or Subpart F organisation if he wants that the CAMO / Subpart F organisation performs the verification of the qualification.

Obviously, if the owner does not have a contract with a CAMO or can not reach the CAMO / Subpart F organisation, he has to do the assessment himself.

In relation to the term "owner" in M.A.801(e), it refers to the one that has the responsibilities stated in M.A.201(a). As a consequence, this person can be the owner or the lessee if the responsibilities have been transferred in accordance with M.A.201(b).

comment

383

comment by: *Hermann Spring*

The list in Appendix VIII is a trail to describe a ground rule, it would never cover all possible variants existing in the general aviation fleet.

Change the approach:

**Define the ground rule only.**

**An example**

You give allowance to remove the spark plug, but not the allowance to install the safety wire for baffle which has to be removed for this task when > 1000kg

response

*Not accepted*

Although we understand the intent of your comment, the Agency updated the Appendix VIII to include only tasks which are:

- not related to safety,
- considered as day to day maintenance,
- and which may be carried out by a person who has experience in doing such.

In order to carry out these tasks, some intermediate tasks not directly linked to the initial one need to be carried out, as removing/reinstalling safety wire, as you mentioned, however it is not the intent of this Appendix to make a full list of simple tasks up to this detail, this would be too much detailed and useless, the intent is to propose a list of main simple tasks. The Agency considered that using ground rules would not be sufficient, as then the scope of authorised work would not be clear enough.

comment

417

comment by: *Ludwig Hessler*

No change to the current Part-M recommended

Comment:

The opportunity is being missed here to establish a clear distinction between the definitions of Owner, Operator, Pilot-Owner or Pilot-Pilot owner.

We should recognise the fact, that aircraft owners exist, who have absolutely no involvement in the actual flying, maintenance etc. of the aircraft. This is assumedly not a unique situation to Germany.

Part-M itself does show evidence of a distinction, where the terms "owner", "pilot-owner" and "operator" are all used as definitions.

The "owner" for example must sign a contract with a CAMO; the "pilot-owner" however needs to report the maintenance performed to the CAMO.

In some cases the "owner" is responsible, in some the "operator" and in others it's the "pilot-owner".

We suggest the establishment of exact definitions for the following terms:

"owner": This can in theory be any entity ranging from banks in charge of the financing, who are noted in the registration documents, to sponsors, who allow the aircraft to be used by different parties.

"operator": The intention of Part-M may be to limit the term to airlines (commercial operations), however this has not been strictly adhered to. It may

be that the term "operator" has been meant to include those who operate (i.e. lease), but do not legally own non commercially used aircraft.

Operators may be variously defined individuals or entities, possible definitions for the latter being for example:

"legal entity", "limited liability company", "aviation sports club", "joint ownership"

We recommend the introduction of a classification between "commercial operator" (c-operator) and "private operator" (p-operator).

Both are consequently and respectively responsible for the airworthiness of their aircraft. The term "owner" should henceforth be omitted and if necessary replaced.

The term "pilot-owner" should be removed entirely. This is where the term "operator" should apply. If this is not desired, a definition should be found, that provides a more apt description (i.e. pilot appointed by the operator). This is important regarding the possibilities with "jointly owned".

The wording of M.A.201 b) must be amended. A person, who is merely renting an aircraft from a charter company, can not be responsible for the airworthiness of that aircraft. The current text does however imply this.

response *Not accepted*

EASA understands the nature of the comment but provisions in M.A.201 should be sufficient

The concept of pilot-owner maintenance introduces an additional fundamental shade: irrespective of the use of the term "pilot" or "operator", the pilot must be the owner of the aircraft. M.A.803 gives provisions in the case of "collectively owned aircraft" or a legal entity that owns an aircraft.

In addition, pilot-owner mainetannce remains valid for aircraft not involved in commercial air transport (refer to M.A.803 (b) - only for any privately operated aircraft of simple design with a MTOW of less than 2730kg, balloon and gliders)

comment 544

comment by: *Marie THERY*

### **M.A.606(g) and M.A.607: compliance with Part-66**

#### **Proposition:**

Article 7 of (CE)2042/2003 should be revised to postpone of at least 3 years the entry into force of the provisions of M.A.606(g) and M.A.607 requiring that all certifying staff should comply with Part-66.

#### **Rationale:**

M.A.606(g) and M.A.607 require that all certifying staff should comply with Part-66.

Almost all certifying staff in activity on 28 Sept 06 will get a Part-66 licence, mainly through the grand-fathering provisions of 66A70.

However, since 28 Sept 06 all new candidates for a certifying staff

authorisation need to pass the Part 66 examinations.

The matter is that, at least in France, the number of candidates for Part 66 examinations in the light aircraft categories (typically B1-2) is far from satisfying the need of replacement of certifying staff who retire every year (either because of age or because of the entry into force of Part M).

The main reason for this being that the B1-2 and B1-1 categories require a similar level of education and that the commercial air transport is much more attractive than the light aircraft "industry".

This difficulty has been recognised by the drafting group MDM-032 as evidenced by the proposal to create the new ELA1, ELA2 and B3 licences.

However these new categories will not be incorporated in the regulation before mid 2008, implying that the first training sessions for the B3 licence will not start before September 2008, more probably in September 2009, implying that there will be no significant number of B3 licence holders before 2010 or 2011.

This would lead to an unacceptable shortage of certifying staff between 28 Sept 08 and 2011.

response *Partially accepted*

New paragraphs M.A.606(h) and M.A.801(d) provide for 1 additional year (until 28 September 2009) where certifying staff can be qualified in accordance with national rules for aircraft not involved in commercial air transport other than large aircraft.

However, it is not the intention of the Agency to propose a 3 year derogation which would apply to every Member State.

If any particular Member State provides proper justification for an operational need of limited duration, this can be addressed through the corresponding flexibility provision in Article 10.3 of the Basic Regulation.

comment 587

comment by: *Programme Manager Europe Air Sports*

EAS congratulates EASA for this part of the NPA

response *Noted*

resulting  
text

**Please refer to the ATTACHMENT 1 at the end of the CRD**

This attachment is divided in four sections:

- **GENERAL ISSUES:** contains replies to general comments to the NPA, including the subsequent changes to the rules and AMC material.
- **SPECIFIC ISSUES:** contains other changes introduced to the rules and AMC material as a result of more specific comments to the NPA.
- **GUIDANCE FOR OWNERS OF PRIVATE AIRCRAFT OF 2730 KG MTOM AND BELOW (including balloons of any size):** contains guidance in relation to the most simplified procedures allowed by the rules. Please note that other options may exist.
- **RESULTING TEXT (Consolidated version of CRD 07/2005, NPA 2007-08 and CRD 2007-08).**



## **Appendix A - Attachments**

 [EASA und die skilauferenden Segelflugzeuge.pdf](#)

Attachment #1 to comment [#642](#)

 [Phase 1 B200.pdf](#)

Attachment #2 to comment [#96](#)

 [NPA-2007-8Final.pdf](#)

Attachment #3 to comment [#279](#)

# **ATTACHMENT 1**

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- **RESULTING TEXT (Consolidated version of CRD 07/2005, NPA 2007-08 and CRD 2007-08).**

## **GENERAL ISSUES**

### **1) Envisaged objectives of Part-M implementation**

#### **a) Safety**

One of the main objectives of the implementation of Part-M is to harmonise the level of safety. Although there is no evidence pointing to the existence of a safety concern with the current national systems, this does not mean that safety cannot be improved. In fact, the level of safety of the national systems varies from country to country, and establishing a common set of rules with the appropriate standards should improve the overall level of safety in Europe.

#### **b) Common market**

Safety is not the only objective of common regulations in EU. There are also objectives related to the common market and the free movement of goods and persons.

Some comments to the NPA have proposed to the Agency not to take action on General Aviation aircraft so they can continue with the current national requirements. This is not an option, as not acting and not issuing an opinion means that full Part-M requirements will apply to all aircraft on 28 September 2008.

Further, in view of the above objectives, it is not an option for the Agency to propose the removal of Part-M for General Aviation. Instead, the Agency has proposed an amended set of rules adapted to the different categories and sizes of aircraft as well as to the different types of operation.

### **2) Complexity of Part-M and "Light" Part-M**

A common request from a very significant number of individuals and organisations is that the current requirements are too complicated and have requested the issuance of a separate Part-M specific for General Aviation.

However, the Agency has opted for introducing the alleviated requirements within the existing Part-M for the following reasons:

a) The current proposal includes different requirements for:

- Aircraft involved in Commercial Air Transport.
- Aircraft not involved in Commercial Air Transport, with distinctions between:
  - Large aircraft
  - Non-large aircraft above 2730 Kg MTOM, except balloons
  - Aircraft below 2730 Kg MTOM and balloons
  - ELA1 aircraft
  - CS-VLA, CS-22 and LSA aircraft

This would mean the creation of several "Light" Part-M documents, for each specific size of aircraft.

b) Most of the paragraphs of Part-M are applicable to all the aircraft categories mentioned above, which means that the reduction of the size of the document for each of the categories above would not be significant.

Regarding the comments pointing out to the complexity of Part-M:

- a) Part-M, as any other legal text, must provide certainty and cover all possible cases. Making it too simple would mean to unnecessarily restrict the options for the applicant.
- b) These legal requirements may be explained in a more understandable way (for particular aircraft categories and types of operation) in User's Guides that can be developed by associations, federations, competent authorities....  
However, these guides can not be part of the regulation or the AMC because they may not cover all the options.
- c) Many of the requirements contained in Part-M are of a general nature, and can be adapted by each applicant to the size and type of organisation and operation. This is the purpose of describing the procedures in the corresponding expositions.
- d) Regarding the numerous comments received during the NPA comment period stating that Part-M only adds bureaucracy because most of it deals with work "away from the aircraft", the Agency would like to note that the continuing airworthiness management of the aircraft is as important for the safety of the aircraft as the actual maintenance performed on it. If continuing airworthiness tasks are not performed properly, the risk clearly exists that not all required maintenance is performed.
- e) Nevertheless, the Agency will make all possible efforts to communicate the content and the intention of the rule to competent authorities and regulated persons and organisations through explanatory notes, letters, workshops, etc.
- (f) In addition, the Agency has included in this "Attachment 1" GUIDANCE FOR OWNERS OF PRIVATE AIRCRAFT OF 2730 KG MTOM AND BELOW (including balloons of any size) containing guidance in relation to the most simplified procedures allowed by the rules. Please note that other options may exist.**

**3) Consideration of comments received from MDM.032**

Working Group MDM.032 is currently working on alleviated requirements for light aircraft in the field of Flight Standards, Flight Crew Licensing and Initial Airworthiness. At this stage they have defined three new categories of aircraft (commonly named in the group as LSA, ELA1 and ELA2).

The intention of the Agency is to apply the same implementation calendar for these categories of aircraft as for other non-large aircraft not used in commercial air transport and not to postpone the application of Part-M waiting for the result of MDM.032.

Waiting for such a result would mean the need for creation of a new Rulemaking task to modify Part-M accordingly.

Nevertheless, since the definition of the aircraft categories of LSA and ELA aircraft is sufficiently mature, the Agency requested to MDM.032 to propose further alleviations specific for these aircraft. These proposals were considered by group M.017 and the following provisions have been introduced:

- a) In anticipation that MDM.032 will introduce in Part-21 the possibility for the owner to fabricate certain parts, without the need for a release to service, **M.A.501(a) has been amended in order to allow installation of such components.**
- b) Alleviated requirements for performing component maintenance tasks and complex maintenance tasks by independent certifying staff **(see M.A.502(d) and M.A.801(c)).**
- c) Possibility for independent certifying staff to issue recommendations for an ARC **(see M.A.901(g)).**

The alleviations described above (except paragraph a)) are only applicable to ELA1 aircraft **(see definition in the amended text of EC 2042/2003, Article 2, paragraph (k)).** The reason is that these alleviations are not considered appropriate for ELA2 aircraft (up to

2000 Kg MTOM) because their technology can be significantly more complex. In addition, the current proposal already contains alleviation for aircraft below 2730 Kg MTOM.

MDM.032 also proposed, for ELA aircraft, the use of Qualified Entities in order to perform functions delegated by the competent authorities and also in order to perform the continuing airworthiness management and the maintenance of these aircraft. These Qualified Entities would be subject to audits by the competent authority.

In their proposal, the Qualified Entity would also assume functions typical of a design organisation.

As a consequence, this organisation would assume the combined functions of a Subpart F maintenance organisation, Subpart G continuing airworthiness management organisation, Part-21 design organisation and delegated functions from the competent authority in order to issue Airworthiness Review Certificates.

This option was not taken on board by the Agency because a Qualified Entity, as defined by the new Basic Regulation, acts on behalf of EASA or on behalf of a Competent Authority. It can perform delegated functions but can not issue final certificates or approvals. In addition, Qualified Entities can not perform the functions of Subpart F, Subpart G and Part-21 organisations.

Nevertheless, nothing prevents an organisation (or national body) to perform all those functions by getting the corresponding Subpart F, Subpart G and Part-21 design organisation approvals.

In addition, if a Member State wishes that a specific body acts with the same functions of a Competent Authority, nothing prevents the Member State to nominate them as Competent Authority for a specific field (**See AMC M.1**).

#### **4) Combined Subpart F + Subpart G approval**

Another request from persons and organisations was the possibility of a combined Subpart F + G approval, in order to avoid duplication of expositions, investigations, audits, and fees.

The opinion of the Agency is that, even if a single certificate for the combined approval is created, the existing separate certificates must be kept in order to cover those organisations that only wish to have one approval.

In addition, creating such a combined certificate, does not guarantee lower fees because the authority will adapt the fees to the level of investigation required, which is higher for a combined approval than for one separate approval. In any case, the Agency has no control over the fees charged by competent authorities.

Also, it would not guarantee unified audits because the competent authority can always decide to perform audits in separate events and to have different departments to cover maintenance and continuing airworthiness issues.

As a consequence, the Agency has opted for the following:

- a) **AMC M.A.602 and AMC M.A.702** have been amended to clarify that an organisation applying for both approvals may use a single EASA Form 2 for the application.
- b) **AMC M.B.604(b) and AMC M.B.704(b)** have been amended to recommend to the competent authority to arrange the audits to cover both approvals avoiding duplicated visit of a particular area
- c) **AMC M.A.704** has been amended to include an example of combined exposition for a Subpart F + Subpart G organisation.
- d) Regarding the question of fees, although the requirements to be complied with by a combined organisation are still those of Subpart F and those of Subpart G, the combined investigation necessary usually is less extensive than two separate investigations, one for each approval. As a consequence, the competent authority has

the opportunity to adapt the fees to the level of investigation required, regardless of whether there is a final combined certificate or two separate certificates.

#### **5) Use of FAA AC 43-13**

Firstly, it must be noted that Part-21 is already applicable to aircraft not involved in commercial air transport. This includes the requirement that repairs must be performed using data approved in accordance with Part-21.

Since AC43-13 states that it can only be applied for minor repairs and Part-21 states that deciding what is a major repair and what is a minor one is the privilege of approved design organisations, the consequence is that it is not possible to allow such decision to certifying staff.

This situation has nothing to do with whether Part-M or national rules apply, because the approval of repairs is regulated by Part-21. As a consequence, even if national rules were to continue applying for continuing airworthiness, repairs must be approved in accordance with Part-21 and the problem with AC43-13 remains the same.

In order to solve the issue, working group MDM.032 is envisaging alleviated certification requirements that should introduce the AC43-13 content (or part of it) in the CS (Certification Specifications) of Part-21, so that such data can become approved data.

In the meantime, the only possibility to use AC43-13 is when the TC holder mentions in their maintenance data (AMM, SRM, etc) that for a specific repair the AC43-13 can be used.

Obviously, AC43-13 can also be used as a basis to propose repairs that will be subject to the approval of EASA or an approved design organisation.

#### **6) Acceptance of FAA 8130-3 and TCCA 24-0078 (without dual release) for maintained components**

An amendment has been introduced in **AMC M.A.613(a)** and **AMC 145.A.50(a)** to give the possibility for a Subpart F maintenance organisation (not rated for components) to issue a Form 1, after appropriate checks and verifications, for components that have been released after maintenance with an 8130-3 (FAA) or TCCA 24-0078 (Canada) without dual release.

This does not apply to new components, because in such a case, an FAA 8130-3 or TCCA 24-0078 issued by the manufacturer is already valid.

#### **7) Pilot-owner self-assessment**

A few comments have been received opposing to the concept of "self assessment" by the pilot-owner before performing maintenance tasks.

The Agency supports this concept for the following reasons:

- The list of pilot-owner maintenance tasks (AMC to Appendix VIII of Part M) has been compiled to exclude safety critical items and the basic principles to qualify a task for pilot-owner maintenance have been listed in Appendix VIII.
- The tasks that can be performed by a particular pilot-owner must be listed in the maintenance programme.
- If the aircraft is managed by a CAMO, this organisation can clearly see if the maintenance performed by the pilot-owner is properly performed and based on such evaluation may amend the maintenance programme to exclude particular pilot-owner tasks. Even if the aircraft is not managed by a CAMO, the aircraft is subject to periodic airworthiness reviews. At that point of time the CAMO or the competent authority can evaluate the effectiveness of pilot-owner maintenance and amend accordingly the maintenance programme.

- The rule clearly states that the pilot-owner is fully responsible to assess his competence before performing pilot-owner maintenance tasks and is fully responsible for the proper performance of such tasks.
- This type of maintenance is currently performed in numerous Member States without an assessment of a pilot-owner's competence by a maintenance organisation, licensed person or competent authority, and no current evidence exists to support that this practice is unsafe.

## 8) Need for Quality Systems / Organisational Reviews

Some comments were received during the NPA consultation period expressing concerns about the need for CAMOs to comply with the following requirements:

- The need to have independent airworthiness review staff except in the one-man CAMO, which increases the personnel requirements.
- The need to have external Quality Audits or internal Organisational Reviews.
- The need to be subject to audits by the competent authority.

These comments were proposing that it should be enough with just relying on the audits performed by the competent authority, further justifying it with the comment that the CAMO functions are bureaucratic functions not involving actual work on the aircraft.

In relation to these comments, the Agency notes the following:

- The regulation does not oblige to have independent airworthiness review staff, not even for organisations larger than a one-man CAMO. These staff are eligible if they have overall authority on the continuing airworthiness management process (**see AMC M.A.707(a)**).
- There is a requirement to have an independent Quality System or an internal Organisational Review.

The independence of the Quality System means that it must be independent from the continuing airworthiness management process. However, the Quality System can not be external because it must address appropriate corrective actions and follow-up. Only the quality audits can be externalised.

- Regarding the comment stating that the CAMO functions are bureaucratic functions not involving actual work on the aircraft the Agency would like to note that the continuing airworthiness management of the aircraft is as important for the safety of the aircraft as the actual maintenance performed on it. If continuing airworthiness tasks are not performed properly, the risk clearly exists that not all required maintenance is performed.
- Relying solely on the audits performed by the competent authority is not acceptable for the Agency for the following reasons:
  - All the privileges granted to a CAMO (the same as the privileges granted to any other organisation as a Subpart-F, Part-145, Part-147, etc) are based on the fact that there is an internal process that monitors compliance with the regulations. Depending on the size of the organisation this can be accomplished by Organisational Reviews or there is a need for a Quality System.
  - The Quality System is fundamental when the organisation becomes complex, because at that point there are numerous work procedures and there is a need to ensure proper communication between the different departments and functions.
  - The organisation is the only one who is continuously aware of the existing problems, difficulties and non compliances, and the only one that can ensure appropriate corrective action and follow-up.

- The audits performed by the competent authority are necessary in order for them to comply with their responsibilities and to ensure that the approval of the organisation can be maintained.

**Nevertheless, the Agency has simplified Appendix VIII to AMC M.A.616 and Appendix XII to AMC M.A.712(f)** to adapt them to the lower complexity of small Subpart F and Subpart G organisations.

## 9) Implementation calendar

Considering that:

- a) the current deadline for implementation of Part-M for aircraft not involved in commercial air transport is 28 September 2008,
- b) most organisations have withheld their application for M.A. Subpart F and Subpart G approvals waiting to have a clear picture of the changes introduced in Part-M for General Aviation, and
- c) competent authorities will not be able to complete the corresponding investigations and issue the approval certificates before the deadline of 28 September 2008,

the Agency therefore has considered the need for appropriate flexibility arrangements for those provisions that cannot reasonably be implemented before 28 September 2008.

Although some organisations, persons and competent authorities have requested the full postponement of Part-M for several years, the Agency has considered that more proportionate measures can be introduced.

These flexibility arrangements consist of transitional measures that will postpone the obligation to comply with those provisions of Part-M that can not be reasonably implemented on time. This will permit those organisations and authorities that are currently ready, to start the application and approval process, and at the same, current organisations and owners would not be affected during the transition period.

### These transition provisions include:

- a) Grandfathering of national continuing airworthiness management organisation approvals with one year to correct the differences (see EC2042/2003, article 3, paragraph 4).
- b) Grandfathering of national maintenance organisation approvals with one year to correct the differences (see EC2042/2003, article 4, paragraph 4).
- c) For all aircraft not involved in commercial air transport:
  - Possibility, during a limited period of time, to issue/extend the ARC following national rules, by the competent authority and by those organisations that had that privilege under national rules (see M.A.901(k), M.A.903(c), M.A.904(f) and EC2042/2003, article 3, paragraph 5)
- d) For aircraft not used in commercial air transport other than large aircraft, until 28 September 2009:
  - No obligation to make a contract with a CAMO or a maintenance organisation, under certain conditions. (see M.A.201(i) and EC 2042/2003, article 7, paragraph 3(a))
  - Possibility to use equivalent national maintenance programmes (see M.A.302(i) and EC2042/2003, article 3, paragraph 6)
  - Possibility to continue using certifying staff qualified in accordance with national rules (see M.A.606(h), M.A.801(d) and EC2042/2003, article 5, paragraph 1)

- Certificates of release to service (for components) issued by organisations approved under national rules are considered equivalent to an EASA Form 1 (see M.A.802(c), AMC M.A.501(a)5(h) and EC2042/2003, article 4, paragraph 4)

The opinion of the Agency is that the flexibility provisions described in paragraph d) above are not justified for large aircraft not involved in commercial air transport because there were no expectations that Part-M would be alleviated for these aircraft.

As a consequence, large aircraft not involved in commercial air transport are required to contract the services of a CAMO as of 28 September 2008.

In the very particular case of aircraft registered in a Member State and operated under the oversight of a third country, the possible initial shortage of CAMOs located in those third countries (due to late granting of approvals by the Agency) may be addressed by the corresponding competent authority using the appropriate flexibility provisions described in the Basic Regulation.

During the NPA comment period there were also some comments from a particular Member State requesting a 3 year extension for the possibility to use certifying staff qualified in accordance with national rules. This was based on their expectation that a significant number of current certifying staff will retire soon and the fact that the B3 and ELA1 licence (proposed by task 66.022) will not be available for some time.

The opinion of the Agency is that if this shortage of certifying staff becomes a reality in a particular Member State, this can be addressed by the corresponding competent authority using the appropriate flexibility provisions described in the Basic Regulation.

As a consequence, the Agency maintains the proposal of 1 year extension.



## **SPECIFIC ISSUES**

### **10) Introduction in EC2042/2003 of definitions for ELA1 and LSA aircraft pending the approval of those terms in Part-21 as part of the work of task MDM.032.**

If the work of MDM.032 results in a slight change in the definitions of those categories of aircraft, EC2042/2003 can be amended as part of the opinions issued with MDM.032.

It is important to note that the provisions introduced for ELA1 aircraft are applicable to all aircraft falling within the definition, not only those which actually follow the ELA1 certification process (as envisaged by MDM.032).

### **11) Introduced the concept of "commercial operations", which is defined in the new Basic Regulation (approved by the Parliament and the Council as of 31 January 2008, with publication expected in March 2008)**

Changes introduced in:

- M.A.201(i)
- M.A.305(b)

### **12) Balloons of any size have been included in the alleviated requirements**

Since the technology used for balloons is basically the same regardless of their size, all balloons are eligible for the alleviated requirements that initially were envisaged for aircraft up to 2730 Kg MTOM not used in commercial air transport.

Changes introduced in:

- All paragraphs where a reference to the weight limit of 2730 Kg MTOM is mentioned.
- AMC M.A.605(a)

### **13) Guidance about the content of the maintenance programme**

See:

- AMC M.A.302(b) and AMC M.A.302(d).
- AMC M.B.301(b)

### **14) Possibility for a CAMO to approve a maintenance programme (under an indirect approval procedure) even if they are not managing the aircraft**

Changes introduced in:

- M.1, paragraph 4(iii)
- M.A.201(e) and AMC M.A.201(e)
- M.A.302(c) and AMC M.A.302(c)

### **15) Introduction of "Baseline" and "Generic" maintenance programmes in M.A.709**

Since these types of maintenance programmes (which are not customised to any particular aircraft registration) have been created in order to allow the initial approval of independent CAMOs, they have been introduced in M.A.709 (requirements for CAMOs) instead of M.A.302 (requirements for the aircraft)

**Changes introduced in:**

- **M.A.709 and AMC M.A.709**

**16) Removal of the reference to the maintenance programme in Form 14, which is transferred to the CAME, and modification of Form 14****Changes introduced in:**

- **M.A.703(a)**
- **M.A.709**
- **Appendix VI: Form 14.** This form has been modified in order to adapt it to the case where a commercial air transport operator is also performing continuing airworthiness management activities for aircraft not involved in commercial air transport.

**17) Component maintenance**

Changes introduced in order to clarify what type of component maintenance can be performed by organisations not rated for components and by independent certifying staff, including the special case of ELA1 aircraft.

**Changes introduced in:**

- **M.A.502 and AMC M.A.502**
- **M.A.613(a)**
- **M.A.802(a) and (b)**
- **Part-M, Appendix IV "Approval Ratings"**
- **Part-145, Appendix II "Organisation approval class and rating system"**

**18) Storage of unserviceable components**

The possibility has been introduced for unserviceable components to be transferred to the owner under certain conditions.

**Changes introduced in:**

- **M.A.504(b) and AMC M.A.504(b)**

**19) Continued experience requirements for certifying staff**

**M.A.607(a)** has been amended to link the continued experience requirements to Part-66 and to those cases where national rules apply (components and aircraft other than aeroplanes and helicopters).

**20) Certifying staff authorisations in AOG situations**

**M.A.607(b)** has been re-introduced (was initially deleted and transferred, with some changes, to M.A.801 as part of CRD07/2005) in order to keep the possibility for Subpart F organisations to issue one-off authorisations in an "AOG away from base" situation without the need for re-check in every single case (only when airworthiness is affected).

**M.A.801(e)** has been maintained to allow the owner to issue such certifying staff authorisations.

**21) Personal authorisation reference for M.A. Subpart F certifying staff**

In order to align with the requirement of including the personal authorisation reference of the certifying person in Block 22 of the Form 1 (Appendix II to Part-M), **an amendment has been introduced in AMC M.A.607(c), which now becomes AMC M.A.607(b), and also to Appendix IV to AMC M.A.604**, requiring such reference to be kept in the personal records and specified in the Maintenance Organisation Manual (MOM).

**22) Release in an AOG situation**

**M.A.801(e)** has been amended to remove the concept of principle place of business and replace by a location where there are no approved maintenance organisations or certifying staff.

**AMC M.A.801(e)** has been amended to clarify what is the impact of this maintenance in the "controlled environment" of the aircraft.

**23) Changes related to Pilot-owner maintenance**

The following chapters have been revised by working group M.005:

- **M.A.803 and AMC M.A.803**
- **Appendix VIII "Limited Pilot-owner maintenance"**. The list of tasks has been transferred to the AMC material. Only the general principles have been maintained in Appendix VIII.
- **AMC to Appendix VIII.**

**24) For airworthiness review staff, inclusion of additional experience requirements as an alternative for lack of an appropriate licence or degree**

Changes introduced in:

- **AMC M.A.706**
- **M.A.707(a)**

**25) Possibility to extend an ARC by a CAMO that has no privileges under M.A.711(b), plus possibility for the competent authority to perform the airworthiness review of aircraft managed by a foreign CAMO.**

Introduced in order to alleviate the situation with aircraft registered in an EU Member State and operated in a third country and also to give a more level playing field for foreign CAMOs which are not eligible for the M.A.711(b) privilege.

The only check required for the extension is the verification that the aircraft has stayed in a controlled environment. It is not necessary to have airworthiness review staff.

Changes introduced in:

- **M.A.704(a)3 and AMC M.A.704(a)3**
- **M.A.706(c) and AMC M.A.706(c)**
- **M.A.711(a)4**
- **M.A.714(b)**
- **M.A.901(f)**
- **M.A.901(i)**
- **Forms 15a and 15b**

**26) Rearrangement of article M.A.901**

This paragraph has been rearranged in order to make it easier to understand and to have under a single paragraph (M.A.901(b)) the definition of controlled environment.

**Changes introduced in:**

- **M.A.901 and all related AMCs**
- **AMC M.B.901**

**27) Appendix II in Part-M: Form 1**

In order to better distinguish from a release to service under Part-145, the release to service issued by the Subpart F organisation in Block 13 will read:

*"Certifies that, unless otherwise specified in this block, the work identified in block 12 and described in this block was accomplished in accordance with Part-M, Subpart F requirements and in respect to that work the item is considered ready for release to service. **THIS IS NOT A RELEASE UNDER PART-145.**"*

This is in addition to the fact that, in the case of a release by a Subpart F organisation, the box for the Part-145 release in block 19 of the Form 1 is not ticked, and to the fact that the reference number of the organisation indicates that it is a Subpart F organisation.

**28) Appendix VII in Part-M: Complex Maintenance Tasks**

Paragraph 3 has been rearranged into paragraphs 3 and 4.

A new paragraph 5 has been introduced to cover additional tasks that may be considered complex based on criteria of special tooling, equipment, facilities and coordination procedures.

**29) Subcontracting of continuing airworthiness management tasks.**

**AMC M.A.712(f)** has been modified to clarify which activities are not considered as subcontracting and can be performed without a Quality System.

**30) Content of the organisational reviews**

**Appendix VIII to AMC M.A.616 and Appendix XII to AMC M.A.712(f)** have been simplified to adapt them to the lower complexity of small Subpart F and Subpart G organisations.

## **GUIDANCE FOR OWNERS OF PRIVATE AIRCRAFT OF 2730 KG MTOM AND BELOW (including balloons of any size):**

- a) The owner (or lessee) is responsible for the continued airworthiness of the aircraft. **See M.A.201(a) and (b).**
- b) The pilot-in-command is responsible for the pre-flight inspection. **See M.A.201(d).**
- c) No need to contract a CAMO. The owner may manage the continuing airworthiness of the aircraft (**see list of tasks in M.A.301**) under its own responsibility. **See M.A.201(e).**
- d) Occurrence reporting: **See M.A.202.**
- e) Maintenance programmes: **See M.A.302.** In particular:
  - Possibility to have the maintenance programme approved by the competent authority or by a CAMO (through "indirect approval") even if the aircraft is not managed by a CAMO. **See M.A.201(e).**
  - Possibility to use "generic" maintenance programmes developed by a CAMO customised for the particular aircraft configuration. **See M.A.709.**
  - Possibility to use maintenance schedules published by the competent authority. **See AMC M.B.301(b).**
  - No need for reliability programmes. **See M.A.302(f).**
- f) Airworthiness Directives: **See M.A.303.**
- g) Data for modifications and repairs: **See M.A.304.**
- h) Aircraft continuing airworthiness record system and transfer of records: **See M.A.305 and M.A.307.**
- i) Maintenance Standards: **See M.A.401, M.A.402 and M.A.403.**
- j) Acceptance and control of components: **See M.A.501, M.A.502, M.A.503 and M.A.504.** In particular:
  - Possibility to install components without a Form 1 or equivalent if allowed by Part-21 (MDM.032 envisages a change to Part-21 allowing fabrication by the owner of certain components without issuance of release to service). **See M.A.501(a).**
  - Possibility to accept components maintained by FAA Repair Stations and Canadian Maintenance Organisations without "dual release", subject to the issuance of a Form 1 by a Subpart F organisation (not necessarily approved for components) in accordance with **AMC M.A.613(a) paragraph 2.8.**
  - Independent certifying staff may transfer unserviceable components to the owner (instead of to an approved maintenance organisation), following the procedures in **M.A.504(b).**
- k) Release to service of aircraft and components: **See M.A.801, M.A.802 and M.A.803.**  
 Maintenance may be released by independent certifying staff (not belonging to a maintenance organisation). **However, an approved maintenance organisation (or a national maintenance organisation until 28 September 2009) is required in the following cases:**
  - (i) **For CS-VLA, CS-22 and LSA aircraft (those with low certified stall speed):**
    - Overhaul of components other than engines and propellers. See M.A.502(d).

- Overhaul of engines and propellers, unless the owner has an agreement with the competent authority as described in M.A.502(d).
- Complex maintenance tasks (Appendix VII), unless the owner has an agreement with the competent authority as described in M.A.801(c).

**(ii) For ELA1 aircraft other than those in paragraph (i) above:**

- Overhaul of components (including engines and propellers). See M.A.502(d).
- Complex maintenance tasks (Appendix VII), unless the owner has an agreement with the competent authority as described in M.A.801(c).

**(iii) For aircraft of 2730 Kg MTOM and below (including balloons of any size) other than those in paragraphs (i) and (ii) above:**

- Maintenance of components (including engines and propellers) in accordance with component maintenance data. See M.A.502(b) and (c).
- Complex maintenance tasks (Appendix VII). See M.A.801(b).

l) Pilot-owner maintenance allowed per **M.A.803 and Appendix VIII.**

m) Airworthiness Review (**M.A.901**):

- The owner has the choice of having the airworthiness review and issuance of the ARC performed by the competent authority or by any CAMO (with airworthiness review privileges), even if the aircraft is not in a controlled environment. **See M.A.901(e) and M.A.901(h)2.**
- If the aircraft is not in a controlled environment, the airworthiness review must be performed every year. **See M.A.901(e).**
- If the aircraft is in a controlled environment, the ARC can be extended twice (without airworthiness review) by the CAMO managing the aircraft. Once every three years an airworthiness review is required. **See M.A.901(e).**
- **For ELA1 aircraft,** the airworthiness review may be performed by appropriately qualified independent certifying staff (two consecutive years), they will issue a recommendation and the competent authority will issue the ARC (**see procedure in M.A.901(g)**). Once every three years the airworthiness review must be performed by a CAMO or by the competent authority.

**RESULTING TEXT**  
**(Consolidated version of CRD07/2005, NPA2007-08 and CRD2007-08)**

**NOTES:**

- Changes to EC1702/2003: only the changes are shown.
- Changes to EC2042/2003 (main text): a full consolidated version identifying the changes is shown.
- Changes to Annex I (Part-M):
  - Section A "Technical Requirements": a full consolidated version identifying the changes is shown. However:
    - Paragraphs M.A.302, M.A.502 and M.A.901 have been replaced completely by new text due to the extensive changes.
  - Section B "Procedure for Competent Authorities": a full consolidated version identifying the changes is shown.
  - Appendixes: only the changes are shown, except for Appendix VI "Form 14", which has been completely replaced by the new text.
- Changes to Annex II (Part-145): only the changes are shown.
- Changes to AMC to Part-M: only the changes are shown, except for Appendix VIII to AMC M.A.616 and Appendix XII to AMC M.A.712(f), dealing with organisational reviews, which have been completely replaced by the new text.
- Changes to AMC to Part-145: only the changes are shown.

**(EC) No 1702/2003**  
**Annex (Part-21)**

**In Form 15a:**

- the sentence: ~~"is considered to be airworthy at the time of the issue"~~  
 is replaced by: ~~"is considered to be airworthy at the time of the review"~~.
- At the end of the Form, insert two blocks for the 1<sup>st</sup> and 2<sup>nd</sup> Extensions, similar to those existing in Form 15b, with the following content:

1<sup>st</sup> Extension: The aircraft is not involved in commercial air transport and has remained in a controlled environment according to M.A.901 for the last year. The aircraft is considered to be airworthy at the time of issue.

Date of issue: ..... Date of expiry: .....

Signed: ..... Authorisation No: .....

Company Name: ..... Approval reference: .....

2<sup>nd</sup> Extension: The aircraft is not involved in commercial air transport and has remained in a controlled environment according to M.A.901 for the last year. The aircraft is considered to be airworthy at the time of issue.

Date of issue: ..... Date of expiry: .....

Signed: ..... Authorisation No: .....

Company Name: ..... Approval reference: .....



**(EC) No 2042/2003**

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Regulation (EC) No 1592/2002 of the European Parliament and of the Council of 15 July 2002 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, (hereinafter referred to as the 'basic Regulation') and in particular Article 5 and 6 thereof,

Whereas:

- (1) The basic Regulation establishes common essential requirements to provide for a high uniform level of civil aviation safety and environmental protection; it requires the Commission to adopt the necessary implementation rules to ensure their uniform application; it establishes the European Aviation Safety Agency (hereinafter referred to as the 'Agency') to assist the Commission in the development of such implementing rules.
- (2) Existing aviation requirements in the field of maintenance as listed in Annex II to Council Regulation (EEC) No 3922/91 will be repealed as from 28 September 2003.
- (3) It is necessary to adopt common technical requirements and administrative procedures to ensure the continuing airworthiness of aeronautical products, parts and appliances subject to the basic Regulation.
- (4) Organisations and personnel involved in the maintenance of products, parts and appliances should be required to comply with certain technical requirements in order to demonstrate their capability and means of discharging their obligations and associated privileges; the Commission is required to adopt measures to specify conditions of issuing, maintaining, amending, suspending or revoking certificates attesting such compliance.
- (5) The need to ensure uniformity in the application of common technical requirements in the field of continuing airworthiness of aeronautical parts and appliances requires that common procedures be followed by competent authorities to assess compliance with these requirements; the Agency should develop certification specifications to facilitate the necessary regulatory uniformity.
- (6) It is necessary to provide sufficient time for the aeronautical industry and Member State administrations to adapt to the new regulatory framework; it is also necessary to recognise the continuing validity of certificates issued before entry into force of this Regulation, in accordance with Article 57 of the basic Regulation.
- (7) The measures provided by this Regulation are based on the opinion issued by the Agency in accordance with Articles 12(2)(b) and 14(1) of the basic Regulation.
- (8) The measures provided by this Regulation are in accordance with the Opinion of the European Aviation Safety Agency Committee established by Article 54(3) of the basic Regulation,

HAS ADOPTED THIS REGULATION:

*Article 1*

**Objective and scope**

1. This Regulation establishes common technical requirements and administrative procedures for ensuring the continuing airworthiness of aircraft, including any component for installation thereto, which are:

- (a) registered in a Member State; or
- (b) registered in a third country and used by an operator for which a Member State ensures oversight of operations.

2. Paragraph 1 shall not apply to aircraft the regulatory safety oversight of which has been transferred to a third country and which are not used by a Community operator, or to aircraft referred to in Annex II to the basic Regulation.

3. The provisions of this Regulation related to commercial air transport are applicable to licensed air carriers as defined by Community law.

## *Article 2*

### **Definitions**

Within the scope of the basic Regulation, the following definitions shall apply:

- (a) 'aircraft' means any machine that can derive support in the atmosphere from the reactions of the air other than reactions of the air against the earth's surface;
- (b) 'certifying staff' means personnel responsible for the release of an aircraft or a component after maintenance;
- (c) 'component' means any engine, propeller, part or appliance;
- (d) 'continuing airworthiness' means all of the processes ensuring that, at any time in its operating life, the aircraft complies with the airworthiness requirements in force and is in a condition for safe operation;
- (e) 'JAA' means 'Joint Aviation Authorities';
- (f) 'JAR' means 'Joint Aviation Requirements';
- (g) 'large aircraft' means an aircraft, classified as an aeroplane with a maximum take-off mass of more than 5 700 kg, or a multi-engined helicopter;
- (h) 'maintenance' means any one or combination of overhaul, repair, inspection, replacement, modification or defect rectification of an aircraft or component, with the exception of pre-flight inspection;
- (i) 'organisation' means a natural person, a legal person or part of a legal person. Such an organisation may be established at more than one location whether or not within the territory of the Member States;
- (j) 'pre-flight inspection' means the inspection carried out before flight to ensure that the aircraft is fit for the intended flight.
- (k) 'ELA1 aircraft' means any of the following aircraft:
  - aeroplanes, sailplanes and powered sailplanes with MTOM less than 1000 Kg, that are not classified as "complex motor-powered aircraft".
  - balloons with a maximum design lifting gas or hot air volume of not more than:
    - 3400 m<sup>3</sup> for hot-air balloons
    - 1050m<sup>3</sup> for gas balloons
    - 300 m<sup>3</sup> for tethered gas balloons
  - airships designed for not more than two occupants and a maximum design lifting gas or hot-air volume of not more than:
    - 2500 m<sup>3</sup> for hot-air airships

- 1000 m<sup>3</sup> for gas airships

(l) 'LSA aircraft' means any aeroplane with:

- a maximum takeoff weight of not more than 600 kilograms, and
- a maximum stalling speed in the landing configuration (VS0) of not more than 45 knots CAS at the aircraft's maximum certificated takeoff weight 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.

### Article 3

#### Continuing airworthiness requirements

1. The continuing airworthiness of aircraft and components shall be ensured in accordance with the provisions of Annex I.

2. Organisations and personnel involved in the continuing airworthiness of aircraft and components, including maintenance, shall comply with the provisions of Annex I and where appropriate those specified in Articles 4 and 5.

3. By derogation from paragraph 1, the continuing airworthiness of aircraft holding a permit to fly shall be ensured on the basis of the specific continuing airworthiness arrangements as defined in the permit to fly issued in accordance with the Annex (Part 21) to Commission Regulation (EC) No 1702/2003.

4. Approvals of continuing airworthiness management organisations issued by a Member State in accordance with the Member State requirements and procedures and valid before 28 September 2008 shall be deemed to have been issued in accordance with Annex I, Subpart G.

For this purpose, by derogation from the provisions of M.B.705(a)2 under Annex I, level 2 findings associated with the differences between the Member State regulation and Annex I, Subpart G may be closed within one year (28 September 2009). Airworthiness review certificates issued or extended by an organisation approved under the Member State requirements during the one-year period shall be deemed to have been issued under this Regulation.

5. Airworthiness review certificates may be issued in accordance with the Member State requirements under the conditions and during the period described in M.A.901(k) for aircraft not involved in commercial air transport.

6. Maintenance programmes developed in accordance with the Member State requirements as described in M.A.302(i) are valid until 28 September 2009 for aircraft not involved in commercial air transport other than large aircraft.

### Article 4

#### Maintenance organisation approvals

1. Organisations involved in the maintenance of large aircraft or of aircraft used for commercial air transport, and components intended for fitment thereto, shall be approved in accordance with the provisions of Annex II.

2. Maintenance approvals issued or recognised by a Member State in accordance with the JAA requirements and procedures and valid before the entry into force of this Regulation shall be deemed to have been issued in accordance with this Regulation.

For this purpose, by derogation from the provisions of 145.B.50(2) under Annex II, level 2 findings associated with the differences between JAR 145 and Annex II may be closed within one year. Certificates of release to service and authorised release certificates issued by an organisation approved under JAA requirements during that one-year period shall be deemed to have been issued under this Regulation.

3. Personnel qualified to carry out and/or control a continued airworthiness non-destructive test of aircraft structures and/or components, on the basis of any standard recognised by a Member State prior to the entry into force of this Regulation as providing an equivalent level of qualification, may continue to carry out and/or control such tests.

4. Maintenance organisation approvals issued by a Member State in accordance with the Member State requirements and procedures and valid before 28 September 2008 shall be deemed to have been issued in accordance with Annex I, Subpart F.

For this purpose, by derogation from the provisions of M.B.605(a)2 under Annex I, level 2 findings associated with the differences between the Member State regulation and Annex I, Subpart F may be closed within one year (28 September 2009). Certificates of release to service and authorised release certificates issued by an organisation approved under the Member State requirements during the one-year period shall be deemed to have been issued under this Regulation.

#### *Article 5*

### **Certifying staff**

1. Certifying staff shall be qualified in accordance with the provisions of Annex III, except as provided for in ~~M.A.607 (b)~~ M.A.801 (d), M.A.801(e) and M.A.803 of Annex I and in 145.A.30 (j) of and Appendix IV to Annex II.

2. Any aircraft maintenance licence and if any, the technical limitations associated with that licence, issued or recognised by a Member State in accordance with the JAA requirements and procedures and valid at the time of entry into force of this Regulation, shall be deemed to have been issued in accordance with this Regulation.

#### *Article 6*

### **Training organisation requirements**

1. Organisations involved in the training of personnel referred to in Article 5 shall be approved in accordance with Annex IV to be entitled:

- (a) to conduct recognised basic training courses; and/or
- (b) to conduct recognised type training courses; and

- (c) to conduct examinations; and
- (d) to issue training certificates.

2. Any maintenance training organisation approval issued or recognised by a Member State in accordance with the JAA requirements and procedures and valid at the time of entry into force of this Regulation shall be deemed to have been issued in accordance with this Regulation. For this purpose, by derogation from the provisions of 147.B.130(b) under Annex IV, level 2 findings associated with the differences between JAR 147 and Annex IV may be closed within one year.

#### Article 7

### Entry into force

1. This Regulation shall enter into force on the day following that of its publication in the *Official Journal of the European Union*.
2. By way of derogation from paragraph 1 the provisions of Annex I, except for M.A.201(h)(2) and M.A.708(c) shall apply as from 28 September 2005.
3. By way of derogation from paragraph 1 and 2, Member States may elect not to apply:
  - (a) the provisions of Annex I to aircraft not involved in commercial air transport, until 28 September 2008, except for M.A.201(i) paragraphs 1 and 2 until 28 September 2009;
  - (b) the provisions of Annex I(I) to aircraft involved in commercial air transport, until 28 September 2008;
  - (c) the following provisions of Annex II, until 28 September 2006:
    - 145.A.30(e), human factors elements,
    - 145.A.30(g) as applicable to large aircraft with a maximum take-off mass of more than 5700 kg,
    - 145.A.30(h)(1) as applicable to aircraft with a maximum take-off mass of more than 5700 kg,
    - 145.A.30(j)(1), Appendix IV,
    - 145.A.30(j)(2), Appendix IV;
  - (d) the following provisions of Annex II, until 28 September 2008:
    - 145.A.30(g) as applicable to aircraft with a maximum take-off mass of 5 700 kg or below,
    - 145.A.30(h)(1) as applicable to aircraft with a maximum take-off mass of 5 700 kg or below,
    - 145.A.30(h)(2);
  - (e) the provisions of Annex III, as applicable to aircraft with a maximum take-off mass above 5700 kg until 28 September 2005;
  - (f) the provisions of Annex III, as applicable to aircraft with a maximum take-off mass of 5700 kg or below until 28 September 2006.
4. Member States may issue approvals with regard to Annex II and Annex IV of a limited duration until 28 September 2007.
5. When a Member State makes use of the provisions of paragraphs 3 or 4 it shall notify the Commission and the Agency.

6. The Agency shall make an evaluation of the implication of the provisions of Annex I to this Regulation with a view to submitting an opinion to the Commission, including possible amendments to it, before 28 March 2005.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

## **ANNEX I**

### **(Part-M)**

#### **M.1**

For the purpose of this Part, the competent authority shall be:

1. for the oversight of the continuing airworthiness of individual aircraft and the issue of airworthiness review certificates the authority designated by the Member State of registry,
2. for the oversight of a maintenance organisation as specified in M.A. Subpart F,
  - (i) the authority designated by the Member State where that organisation's principle place of business is located.
  - (ii) the Agency if the organisation is located in a third country,
3. for the oversight of a continuing airworthiness management organisation as specified in M.A. Subpart G,
  - (i) the authority designated by the Member State where that organisation's principle place of business is located if the approval is not included in an air operator's certificate.
  - (ii) the authority designated by the Member State of the operator if the approval is included in an air operator's certificate.
  - (iii) the Agency if the organisation is located in a third country,
4. for the approval of maintenance programmes,
  - (i) the authority designated by the Member State of registry.
  - (ii) By derogation to paragraph 4(i), in the case of commercial air transport, when the Member State of the operator is different from the State of registry, the authority agreed by the above two States prior to the approval of the maintenance programme.
  - (iii) By derogation to paragraph 4(i), when an aircraft not used in commercial air transport is managed by an M.A. Subpart G organisation not subject to the oversight of the Member State of registry, the authority designated by the Member State of registry, unless otherwise agreed, prior to the approval of the maintenance programme, between the Member State of registry and:
    - the Member State responsible for the oversight of the M.A. Subpart G organisation, or
    - the Agency if the M.A. Subpart G organisation is located in a third country.

#### SECTION A

### **TECHNICAL REQUIREMENTS**

#### SUBPART A

#### *GENERAL*

#### **M.A.101 Scope**

This Section establishes the measures to be taken to ensure that airworthiness is maintained, including maintenance. It also specifies the conditions to be met by the persons or organisations involved in such continuing airworthiness management.

SUBPART B  
ACCOUNTABILITY

**M.A.201 Responsibilities**

- (a) The owner is responsible for the continuing airworthiness of an aircraft and shall ensure that no flight takes place unless:
1. the aircraft is maintained in an airworthy condition, and;
  2. any operational and emergency equipment fitted is correctly installed and serviceable or clearly identified as unserviceable, and;
  3. the airworthiness certificate remains valid, and;
  4. the maintenance of the aircraft is performed in accordance with the approved maintenance programme as specified in M.A.302.
- (b) When the aircraft is leased, the responsibilities of the owner are transferred to the lessee if:
1. the lessee is stipulated on the registration document, or;
  2. detailed in the leasing contract.

When reference is made in this Part to the 'owner', the term owner covers the owner or the lessee, as applicable.

- (c) Any person or organisation performing maintenance shall be responsible for the tasks performed.
- (d) The pilot-in-command or, in the case of commercial air transport, the operator shall be responsible for the satisfactory accomplishment of the pre-flight inspection. This inspection must be carried out by the pilot or another qualified person but need not be carried out by an approved maintenance organisation or by Part-66 certifying staff.
- (e) In order to satisfy the responsibilities of paragraph (a) the owner of an aircraft shall ensure the proper accomplishment of the tasks associated with the continuing airworthiness. Alternatively, the owner of an aircraft may contract the tasks associated with the continuing airworthiness to an approved continuing airworthiness management organisation as specified in M.A. Subpart G (continuing airworthiness management organisation hereinafter) in accordance with Appendix I. In this case, the continuing airworthiness management organisation assumes responsibility for the proper accomplishment of these tasks.

An owner who decides to manage the continuing airworthiness of the aircraft under its own responsibility, without a contract in accordance with Appendix I, may nevertheless make a limited contract with an M.A. Subpart G organisation for the development of the maintenance programme and its approval through an indirect approval procedure as described in M.A.302(c).

This limited contract transfers the responsibility for the development and approval of the maintenance programme to the contracted M.A. Subpart G organisation.

- (f) In the case of large aircraft, in order to satisfy the responsibilities of paragraph (a) the owner of an aircraft shall ensure that the tasks associated with continuing airworthiness are performed by an approved continuing airworthiness management organisation. A written contract shall be made in accordance with Appendix I. In this case, the continuing airworthiness management organisation assumes responsibility for the proper accomplishment of these tasks.



- (g) Maintenance of large aircraft, aircraft used for commercial air transport and components thereof shall be carried out by a Part-145 approved maintenance organisation.
- (h) In the case of commercial air transport the operator is responsible for the continuing airworthiness of the aircraft it operates and shall:
  - 1. be approved, as part of the air operator certificate issued by the competent authority, pursuant to M.A. Subpart G for the aircraft it operates; and
  - 2. be approved in accordance with Part-145 or contract such an organisation; and
  - 3. ensure that paragraph (a) is satisfied.
- (i) When an operator is requested by a Member State to hold a certificate for **commercial operations** ~~its operational activities~~, other than for commercial air transport, it shall:
  - 1. be appropriately approved, pursuant to M.A. Subpart G, for the management of the continuing airworthiness of the aircraft it operates or contract such an organisation; and
  - 2. be appropriately approved in accordance with M.A. Subpart F or Part- 145, or contract such organisations; and
  - 3. ensure that paragraph (a) is satisfied.
- (j) The owner/operator is responsible for granting the competent authority access to the organisation/aircraft to determine continued compliance with this Part.

#### **M.A.202 Occurrence reporting**

- (a) Any person or organisation responsible under M.A.201 shall report to **the competent authority** of the State of registry, the organisation responsible for the type design or supplemental type design and, if applicable, the Member State of operator, any identified condition of an aircraft or component that hazards seriously the flight safety.
- (b) Reports shall be made in a manner established by the Agency and contain all pertinent information about the condition known to the person or organisation.
- (c) Where the person or organisation maintaining the aircraft is contracted by an owner or an operator to carry out maintenance, the person or the organisation maintaining the aircraft shall also report to the owner, the operator or the continuing airworthiness management organisation any such condition affecting the owner's or the operator's aircraft or component.
- (d) Reports shall be made as soon as practicable, but in any case within 72 hours of the person or organisation identifying the condition to which the report relates.

### SUBPART C

#### *CONTINUING AIRWORTHINESS*

#### **M.A.301 Continuing airworthiness tasks**

The aircraft continuing airworthiness and the serviceability of both operational and emergency equipment shall be ensured by:

- 1. the accomplishment of pre-flight inspections;
- 2. the rectification to an officially recognised standard of any defect and damage affecting safe operation taking into account, for all large aircraft or aircraft used for commercial air transport, the minimum equipment list and configuration deviation list if applicable to the aircraft type;
- 3. the accomplishment of all maintenance, in accordance with the M.A.302 approved aircraft maintenance programme;

4. for all large aircraft or aircraft used for commercial air transport the analysis of the effectiveness of the M.A.302 approved maintenance programme;
5. the accomplishment of any applicable:
  - (i) airworthiness directive,
  - (ii) operational directive with a continuing airworthiness impact,
  - (iii) continued airworthiness requirement established by the Agency,
  - (iv) measures mandated by the competent authority in immediate reaction to a safety problem;
6. the accomplishment of modifications and repairs in accordance with M.A.304;
7. for non-mandatory modifications and/or inspections, for all large aircraft or aircraft used for commercial air transport the establishment of an embodiment policy;
8. maintenance check flights when necessary.

### **M.A.302 Maintenance programme**

- (a) The maintenance of the aircraft shall be organized in accordance with a maintenance programme.
- (b) The maintenance programme and any subsequent amendments shall be approved by the competent authority.
- (c) By derogation to M.A.302(b), the maintenance programme and its amendments may be approved by an M.A. Subpart G organisation through an approval procedure (hereinafter called "indirect approval procedure"). This procedure shall be established by the M.A. Subpart G organisation, included in the Continuing Airworthiness Management Exposition, and approved by the competent authority responsible for that M.A. Subpart G organisation.  
The M.A. Subpart G organisation shall not use the indirect approval procedure when the organisation is not under the oversight of the Member State of Registry, unless an agreement exists in accordance with article M.1, paragraph 4(iii).
- (d) The maintenance programme must establish compliance with:
  1. instructions for continuing airworthiness issued by the type certificate and supplementary type certificate holders and any other organisation that publishes such data in accordance with Part-21, or
  2. instructions issued by the competent authority, if they differ from subparagraph 1 or in the absence of specific recommendations.

The owner or the operator may propose to the competent authority alternate and/or additional instructions to those defined in paragraphs 1 and 2. These alternate and/or additional instructions may be included in the maintenance programme once they have been approved by the competent authority.
- (e) The maintenance programme shall contain details, including frequency, of all maintenance to be carried out, including any specific tasks linked to specific operations.
- (f) For large aircraft, when the maintenance programme is based on:
  1. Maintenance Steering Group logic, or,
  2. mainly on condition monitoring

the programme must include a reliability programme.
- (g) The maintenance programme must be subject to periodic reviews and amended when necessary. The reviews will ensure that the programme continues to be valid in light of operating experience whilst taking into account new and/or modified maintenance instructions promulgated by the type certificate and supplementary type certificate holders and any other organisation that publishes such data in accordance with Part-21.

- (h) The maintenance programme must reflect applicable mandatory regulatory requirements addressed in documents issued by the Type Certificate holder to comply with Part 21A.61, by the modification approval holder to comply with 21A.107, by the supplementary type certificate holders to comply with 21A.120 and by the repair design approval holders to comply with 21A.449.
- (i) By derogation to M.A.302 (b) through (e), for aircraft not involved in commercial air transport other than large aircraft, and only until 28 September 2009, the following documents are also deemed as approved maintenance programmes when they comply with the relevant Member State regulation:
1. A recommended schedule issued by the Type Certificate holder.
  2. A maintenance programme issued by the competent authority.
  3. A maintenance programme approved or accepted by the competent authority.

These documents shall be supplemented by procedures to ensure compliance with M.A.302(g) and (h) and, when applicable, by the corresponding M.A.803 Pilot-owner maintenance tasks.

### **M.A.303 Airworthiness directives**

Any applicable airworthiness directive must be carried out within the requirements of that airworthiness directive, unless otherwise specified by the Agency.

### **M.A.304 Data for modifications and repairs**

Damage shall be assessed and modifications and repairs carried out using data approved by the Agency or by an approved Part-21 design organisation, as appropriate.

### **M.A.305 Aircraft continuing airworthiness record system**

- (a) At the completion of any maintenance, the associated M.A.801 certificate of release to service shall be entered in the aircraft continuing airworthiness records. Each entry shall be made as soon as practicable but in no event more than 30 days after the day of maintenance action.
- (b) The aircraft continuing airworthiness records shall consist of, as appropriate, an aircraft logbook, engine logbook(s) or engine module log cards, propeller logbook(s) and log cards for any service life limited component and, when required by M.A.306 for commercial air transport or by the Member State for commercial operations other than commercial air transport, the operator's technical log.
- (c) The aircraft type and registration mark, the date, together with total flight time and/or flight cycles and/or landings, as appropriate, shall be entered in the aircraft logbooks.
- (d) The aircraft continuing airworthiness records shall contain the current:
1. status of airworthiness directives and measures mandated by the competent authority in immediate reaction to a safety problem;
  2. status of modifications and repairs;
  3. status of compliance with maintenance programme;
  4. status of service life limited components;
  5. mass and balance report;
  6. list of deferred maintenance.
- (e) In addition to the authorised release document, EASA Form 1 or equivalent, the following information relevant to any component installed shall be entered in the appropriate engine or propeller logbook, engine module or service life limited component log card:

1. identification of the component, and;
  2. the type, serial number and registration of the aircraft to which the particular component has been fitted, along with the reference to the installation and removal of the component, and;
  3. the particular component accumulated total flight time and/or flight cycles and/or landings and/or calendar time, as appropriate, and;
  4. the current paragraph (d) information applicable to the component.
- (f) The person responsible for the management of continuing airworthiness tasks pursuant to M.A. Subpart B, shall control the records as detailed in this paragraph and present the records to the competent authority upon request.
- (g) All entries made in the aircraft continuing airworthiness records shall be clear and accurate. When it is necessary to correct an entry, the correction shall be made in a manner that clearly shows the original entry.
- (h) An owner or operator shall ensure that a system has been established to keep the following records for the periods specified:
1. all detailed maintenance records in respect of the aircraft and any life-limited component fitted thereto, at least 24 months after the aircraft or component was permanently withdrawn from service, and;
  2. the total time and flight cycles as appropriate, of the aircraft and all life-limited components, at least 12 months after the aircraft or component has been permanently withdrawn from service, and;
  3. the time and flight cycles as appropriate, since last scheduled maintenance of the component subjected to a service life limit, at least until the component scheduled maintenance has been superseded by another scheduled maintenance of equivalent work scope and detail, and;
  4. the current status of compliance with maintenance programme such that compliance with the approved aircraft maintenance programme can be established, at least until the aircraft or component scheduled maintenance has been superseded by other scheduled maintenance of equivalent work scope and detail, and;
  5. the current status of airworthiness directives applicable to the aircraft and components, at least 12 months after the aircraft or component has been permanently withdrawn from service, and;
  6. details of current modifications and repairs to the aircraft, engine(s), propeller(s) and any other component vital to flight safety, at least 12 months after they have been permanently withdrawn from service.

### **M.A.306 Operator's technical log system**

- (a) In the case of commercial air transport, in addition to the requirements of M.A.305, an operator shall use an aircraft technical log system containing the following information for each aircraft:
1. information about each flight, necessary to ensure continued flight safety, and;
  2. the current aircraft certificate of release to service, and;
  3. the current maintenance statement giving the aircraft maintenance status of what scheduled and out of phase maintenance is next due except that the competent authority may agree to the maintenance statement being kept elsewhere, and;
  4. all outstanding deferred defects rectifications that affect the operation of the aircraft, and;
  5. any necessary guidance instructions on maintenance support arrangements.

- (b) The aircraft technical log system and any subsequent amendment shall be approved by the competent authority.
- (c) An operator shall ensure that the aircraft technical log is retained for 36 months after the date of the last entry.

#### **M.A.307 Transfer of aircraft continuing airworthiness records**

- (a) The owner or operator shall ensure when an aircraft is permanently transferred from one owner or operator to another that the M.A.305 continuing airworthiness records and, if applicable, M.A.306 operator's technical log are also transferred.
- (b) The owner shall ensure, when he contracts the continuing airworthiness management tasks to a continuing airworthiness management organisation, that the M.A.305 continuing airworthiness records are transferred to the organisation.
- (c) The time periods prescribed for the retention of records shall continue to apply to the new owner, operator or continuing airworthiness management organisation.

### SUBPART D

#### MAINTENANCE STANDARDS

#### **M.A.401 Maintenance data**

- (a) The person or organisation maintaining an aircraft shall have access to and use only applicable current maintenance data in the performance of maintenance including modifications and repairs.
- (b) For the purposes of this Part, applicable maintenance data is:
  - 1. any applicable requirement, procedure, standard or information issued by the competent authority, **and;**
  - 2. any applicable airworthiness directive, **and;**
  - 3. applicable instructions for continuing airworthiness, issued by type certificate holders, supplementary type certificate holders and any other organisation that publishes such data in accordance with Part 21, **and;**
  - 4. any applicable data issued in accordance with 145.A.45(d).
- (c) The person or organisation maintaining an aircraft shall ensure that all applicable maintenance data is current and readily available for use when required. The person or organisation shall establish a work card or worksheet system to be used and shall either transcribe accurately the maintenance data onto such work cards or worksheets or make precise reference to the particular maintenance task or tasks contained in such maintenance data.

#### **M.A.402 Performance of maintenance**

- (a) All maintenance shall be performed by qualified personnel, following the methods, techniques, standards and instructions specified in the M.A.401 maintenance data. Furthermore, an independent inspection shall be carried out after any flight safety sensitive maintenance task unless otherwise specified by Part-145 or agreed by the competent authority.
- (b) All maintenance shall be performed using the tools, equipment and material specified in the M.A.401 maintenance data unless otherwise specified by Part-145. Where necessary, tools and equipment shall be controlled and calibrated to an officially recognised standard.
- (c) The area in which maintenance is carried out shall be well organised and clean in respect of dirt and contamination.

- (d) All maintenance shall be performed within any environmental limitations specified in the M.A.401 maintenance data.
- (e) In case of inclement weather or lengthy maintenance, proper facilities shall be used.
- (f) After completion of all maintenance a general verification must be carried out to ensure the aircraft or component is clear of all tools, equipment and any other extraneous parts and material, and that all access panels removed have been refitted.

### **M.A.403 Aircraft defects**

- (a) Any aircraft defect that hazards seriously the flight safety shall be rectified before further flight.
- (b) Only the authorised certifying staff, according to M.A.801(b)1, M.A.801(b)2, M.A.801(c) or Part-145 can decide, using M.A.401 maintenance data, whether an aircraft defect hazards seriously the flight safety and therefore decide when and which rectification action shall be taken before further flight and which defect rectification can be deferred. However, this does not apply when:
  - 1. the approved minimum equipment list as mandated by the competent authority is used by the pilot; or,
  - 2. aircraft defects are defined as being acceptable by the competent authority.
- (c) Any aircraft defect that would not hazard seriously the flight safety shall be rectified as soon as practicable, after the date the aircraft defect was first identified and within any limits specified in the maintenance data.
- (d) Any defect not rectified before flight shall be recorded in the M.A.305 aircraft maintenance record system or M.A.306 operator's technical log system as applicable.

## SUBPART E COMPONENTS

### **M.A.501 Installation**

- (a) No component may be fitted unless it is in a satisfactory condition, has been appropriately released to service on an EASA Form 1 or equivalent and is marked in accordance with Part 21 Subpart Q, unless otherwise specified in Part-21, Part-145 and or M.A. Subpart F.
- (b) Prior to installation of a component on an aircraft the person or approved maintenance organisation shall ensure that the particular component is eligible to be fitted when different modification and/or airworthiness directive configurations may be applicable.
- (c) Standard parts shall only be fitted to an aircraft or a component when the maintenance data specifies the particular standard part. Standard parts shall only be fitted when accompanied by evidence of conformity traceable to the applicable standard.
- (d) Material being either raw material or consumable material shall only be used on an aircraft or a component when the aircraft or component manufacturer states so in relevant maintenance data or as specified in Part-145. Such material shall only be used when the material meets the required specification and has appropriate traceability. All material must be accompanied by documentation clearly relating to the particular material and containing a conformity to specification statement plus both the manufacturing and supplier source.

### **M.A.502 Component maintenance**

- (a) The maintenance of components shall be performed by appropriately approved M.A. Subpart F or Part-145 maintenance organisations.

- (b) By derogation to M.A.502(a), maintenance on any component in accordance with aircraft maintenance data may be performed by an A rated M.A. Subpart F or Part-145 organisation as well as by M.A.801(b)2 certifying staff only whilst such components are fitted to the aircraft. Nevertheless, such A rated M.A. Subpart F or Part-145 organisation or M.A.801(b)2 certifying staff may temporarily remove this component for maintenance, in order to improve access to the component, except when such removal generates the need for additional maintenance using component maintenance data. Component maintenance performed in accordance with this subparagraph is not eligible for the issuance of an EASA Form 1 and shall be subject to the aircraft release requirements.
- (c) By derogation to M.A.502(a), maintenance on any engine/APU component in accordance with engine/APU maintenance data may be performed by a B rated M.A. Subpart F or Part-145 organisation only whilst such components are fitted to the engine/APU. Nevertheless, such B rated M.A. Subpart F or Part-145 organisation may temporarily remove this component for maintenance, in order to improve access to the component, except when such removal generates the need for additional maintenance using component maintenance data.
- (d) By derogation to M.A.502(a), maintenance on any component while installed or temporarily removed from an ELA1 aircraft not used in commercial air transport, and performed in accordance with component maintenance data, may be performed by M.A.801(b)(2) certifying staff.

This derogation is not applicable to:

1. overhaul of components other than engines and propellers.
2. overhaul of engines and propellers for aircraft other than CS-VLA, CS-22 and LSA.

In addition, this derogation is not applicable in the following cases, unless the aircraft owner has agreed a programme of work with the competent authority prior to commencement of these tasks and the competent authority is satisfied that the M.A.801(b)(2) certifying staff holds appropriate qualifications and recent experience, the applicable component maintenance data, tools, equipment and materials and has access to proper facilities:

1. For the overhaul of engines and propellers on CS-VLA, CS-22 and LSA aircraft.
2. For component complex maintenance tasks listed in Appendix VII.

Component maintenance performed in accordance with this subparagraph is not eligible for the issuance of an EASA Form 1 and shall be subject to the aircraft release requirements.

### **M.A.503 Service life limited components**

Installed service life limited components shall not exceed the approved service life limit as specified in the approved maintenance programme and airworthiness directives, except as provided by M.A.504(c).

### **M.A.504 Control of unserviceable components**

- (a) A component shall be considered unserviceable in any one of the following circumstances:
1. expiry of the service life limit as defined in the maintenance program;
  2. non-compliance with the applicable airworthiness directives and other continued airworthiness requirement mandated by the Agency;
  3. absence of the necessary information to determine the airworthiness status or eligibility for installation;
  4. evidence of defects or malfunctions;
  5. involvement in an incident or accident likely to affect its serviceability.

- (b) Unserviceable components shall be identified and stored in a secure location under the control of ~~the M.A.502~~ an approved maintenance organisation until a decision is made on the future status of such component. Nevertheless, for aircraft not used in commercial air transport, other than large aircraft, the person or organisation that declared the component unserviceable may transfer its custody, after proper identification, to the aircraft owner provided that such transfer is reflected in the aircraft/engine/component log book.
- (c) Components which have reached their certified life limit or contain a non repairable defect shall be classified as unsalvageable and shall not be permitted to re-enter the component supply system, unless certified life limits have been extended or a repair solution has been approved according to M.A.304.
- (d) Any person or organisation accountable under Part-M shall, in the case of a paragraph (c) unsalvageable components:
1. retain such component in the paragraph (b) location, or;
  2. arrange for the component to be mutilated in a manner that ensures that it is beyond economic salvage or repair before relinquishing responsibility for such component.
- (e) Notwithstanding paragraph (d) a person or organisation accountable under Part-M may transfer responsibility of components classified as unsalvageable to an organisation for training or research without mutilation.

## SUBPART F

### MAINTENANCE ORGANISATION

#### **M.A.601 Scope**

This Subpart establishes the requirements to be met by an organisation to qualify for the issue or continuation of an approval for the maintenance of aircraft and components not listed in M.A.201 ~~(f) and~~ (g).

#### **M.A.602 Application**

An application for issue or variation of a maintenance organisation approval shall be made on a form and in a manner established by the competent authority.

#### **M.A.603 Extent of approval**

- (a) The grant of approval is indicated by the issue of a certificate (included in Appendix 5) by the competent authority. The M.A.604 approved maintenance organisation's manual must specify the scope of work deemed to constitute approval.

The Appendix 4 to this Part defines all classes and ratings possible under M.A. Subpart F.

- (b) An approved maintenance organisation may fabricate, in conformity with maintenance data, a restricted range of parts for the use in the course of undergoing work within its own facilities, as identified in the maintenance organisation manual.

#### **M.A.604 Maintenance organisation manual**

- (a) The maintenance organisation shall provide a manual containing at least the following information:
1. a statement signed by the accountable manager to confirm that the organisation will continuously work in accordance with Part-M and the manual at all times, and;
  2. the organisation's scope of work, and;



3. the title(s) and name(s) of person(s) referred to in M.A.606(b), and;
  4. an organisation chart showing associated chains of responsibility between the person(s) referred to in M.A.606(b), and;
  5. a list of certifying staff **with their scope of approval**, and;
  6. a general description and location of the facilities, and;
  7. procedures specifying how the maintenance organisation ensures compliance with this Part, and;
  8. the maintenance organisation manual amendment procedure(s).
- (b) The maintenance organisation manual and its amendments shall be approved by the competent authority.
- (c) Notwithstanding paragraph (b) minor amendments to the manual may be approved through a procedure (hereinafter called indirect approval).

### **M.A.605 Facilities**

The organisation shall ensure that:

- (a) Facilities are provided for all planned work, specialised workshops and bays are segregated as appropriate, to ensure protection from contamination and the environment.
- (b) Office accommodation is provided for the management of all planned work including in particular, the completion of maintenance records.
- (c) Secure storage facilities are provided for components, equipment, tools and material. Storage conditions shall ensure segregation of unserviceable components and material from all other components, material, equipment and tools. Storage conditions shall be in accordance with the manufacturers' instructions and access shall be restricted to authorised personnel.

### **M.A.606 Personnel requirements**

- (a) The organisation shall appoint an accountable manager, who has corporate authority for ensuring that all maintenance required by the customer can be financed and carried out to the standard required by this Part.
- (b) A person or group of persons shall be nominated with the responsibility of ensuring that the organisation is always in compliance with this Subpart. Such person(s) shall be ultimately responsible to the accountable manager.
- (c) All paragraph (b) persons shall be able to show relevant knowledge, background and appropriate experience related to aircraft and/or component maintenance.
- (d) The organisation shall have appropriate staff for the normal expected contracted work. The use of temporarily sub-contracted staff is permitted in the case of higher than normally expected contracted work and only for personnel not issuing a certificate of release to service.
- (e) The qualification of all personnel involved in maintenance shall be demonstrated and recorded.
- (f) Personnel who carry out specialised tasks such as welding, non-destructive testing/inspection other than colour contrast shall be qualified in accordance with an officially recognised standard.
- (g) The maintenance organisation shall have sufficient certifying staff to issue M.A.612 and M.A.613 certificates of release to service for aircraft and components. They shall comply with the requirements of Part-66.
- (h) **By derogation to M.A.606(g), and only until 28 September 2009, certifying staff may be qualified in accordance with the relevant Member State regulation.**

**M.A.607 Certifying staff**

- (a) In addition to M.A.606(g), certifying staff can only exercise their privileges, if the organisation has ensured:
1. that certifying staff can demonstrate that ~~in the preceding two year period they have either had six months of relevant maintenance experience or, met the provision for the issue of the appropriate privileges;~~ they meet the requirements of 66.A.20(b), except when Part-66 refers to Member State regulation, in which case they shall meet the requirements of such regulation, and,
  2. that certifying staff have an adequate understanding of the relevant aircraft and/or aircraft component(s) to be maintained together with the associated organisation procedures.
- (b) In the following unforeseen cases, where an aircraft is grounded at a location other than the main base where no appropriate certifying staff is available, the maintenance organisation contracted to provide maintenance support may issue a one-off certification authorisation:
1. to one of its employees holding type qualifications on aircraft of similar technology, construction and systems; or
  2. to any person with not less than five years maintenance experience and holding a valid ICAO aircraft maintenance licence rated for the aircraft type requiring certification provided there is no organisation appropriately approved under this Part at that location and the contracted organisation obtains and holds on file evidence of the experience and the licence of that person.
- All such cases must be reported to the competent authority within seven days of the issuance of such certification authorisation. The approved maintenance organisation issuing the one-off certification authorisation shall ensure that any such maintenance that could affect flight safety is re-checked.
- (c) The approved maintenance organisation shall record all details concerning certifying staff and maintain a current list of all certifying staff, including their scope of approval.

**M.A.608 Components, equipment and tools**

- (a) The organisation shall:
1. hold the equipment and tools specified in the M.A.609 maintenance data described in M.A.609 or verified equivalents as listed in the maintenance organisation manual as necessary for day-to-day maintenance within the scope of the approval; and,
  2. demonstrate that it has access to all other equipment and tools used only on an occasional basis.
- (b) Tools and equipment shall be controlled and calibrated to an officially recognised standard. Records of such calibrations and the standard used shall be kept by the organisation.
- (c) The organisation shall inspect, classify and appropriately segregate all incoming components.

**M.A.609 Maintenance data**

The approved maintenance organisation shall hold and use applicable current maintenance data specified in M.A.401 in the performance of maintenance including modifications and repairs. In the case of customer provided maintenance data, it is only necessary to have such data when the work is in progress.

**M.A.610 Maintenance work orders**

Before the commencement of maintenance a written work order shall be agreed between the organisation and the customer organisation requesting maintenance to clearly establish the maintenance to be carried out.

**M.A.611 Maintenance standards**

All maintenance shall be carried out in accordance with the requirements of M.A.Subpart D.

**M.A.612 Aircraft certificate of release to service**

At the completion of all required aircraft maintenance in accordance with this Subpart an aircraft certificate of release to service shall be issued according to M.A.801.

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

- (a) At the completion of all required component maintenance in accordance with this Subpart a component certificate of release to service shall be issued according to M.A.802. EASA Form 1 shall be issued except for those components maintained in accordance with M.A.502(b) and M.A.502(d) and components fabricated in accordance with M.A.603(b).
- (b) The component certificate release to service document, EASA Form 1 may be generated from a computer database.

**M.A.614 Maintenance records**

- (a) The approved maintenance organisation shall record all details of work carried out. Records necessary to prove all requirements have been met for issuance of the certificate of release to service including the sub-contractor's release documents shall be retained.
- (b) The approved maintenance organisation shall provide a copy of each certificate of release to service to the aircraft owner, together with a copy of any specific approved repair/modification data used for repairs/modifications carried out.
- (c) The approved maintenance organisation shall retain a copy of all maintenance records and any associated maintenance data for three years from the date the aircraft or aircraft component to which the work relates was released from the approved maintenance organisation.
  - 1. The records shall be stored in a manner that ensures protection from damage and theft.
  - 2. All computer hardware used to ensure backup shall be stored in a different location from that containing the working data in an environment that ensures they remain in good condition.
  - 3. Where an approved maintenance organisation terminates its operation, all retained maintenance records covering the last two years shall be distributed to the last owner or customer of the respective aircraft or component or shall be stored as specified by the competent authority.

**M.A.615 Privileges of the organisation**

The organisation may:

- 1. maintain any aircraft and/or component for which it is approved at the locations specified in the approval certificate and in the manual.
- 2. maintain any aircraft and/or component for which it is approved at any other location subject to such maintenance being only necessary to rectify arising defects.

3. Arrange for the performance of specialized services at another organisation appropriately qualified and under the control of the M.A. Subpart F organisation in accordance with procedures described in its Maintenance Organisation Manual as directly approved by the competent authority. This refers to work carried out by a specialised service organisation not appropriately approved itself under M.A. Subpart F or Part-145 to carry out such tasks.
4. ~~3.~~ Issue certificates of release to service on completion of maintenance, in accordance with M.A.612 or M.A.613.

#### **M.A.616 Organisational review**

To ensure that the approved maintenance organisation continues to meet the requirements of this Subpart, it shall organise, on a regular basis, organisational reviews.

#### **M.A.617 Changes to the approved maintenance organisation**

In order to enable the competent authority to determine continued compliance with this Part, the approved maintenance organisation shall notify it of any proposal to carry out any of the following changes, before such changes take place:

1. the name of the organisation;
2. the location of the organisation;
3. additional locations of the organisation;
4. the accountable manager;
5. any of the persons specified in paragraph M.A.606(b);
6. the facilities, equipment, tools, material, procedures, work scope and certifying staff that could affect the approval.

In the case of proposed changes in personnel not known to the management beforehand, these changes shall be notified at the earliest opportunity.

#### **M.A.618 Continued validity of approval**

- (a) An approval shall be issued for an unlimited duration. It shall remain valid subject to:
  1. the organisation remaining in compliance with this Part, in accordance with the provisions related to the handling of findings as specified under M.A.619, and;
  2. the competent authority being granted access to the organisation to determine continued compliance with this Part, and;
  3. the approval not being surrendered or revoked;
- (b) Upon surrender or revocation, the approval certificate shall be returned to the competent authority.

#### **M.A.619 Findings**

- (a) A level 1 finding is any significant non-compliance with Part-M requirements which lowers the safety standard and hazards seriously the flight safety.
- (b) A level 2 finding is any non-compliance with the Part-M requirements which could lower the safety standard and possibly hazard the flight safety.
- (c) After receipt of notification of findings according to M.B.605, the holder of the maintenance organisation approval shall define a corrective action plan and demonstrate corrective action to the satisfaction of the competent authority within a period agreed with this authority.

## SUBPART G

## CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION

**M.A.701 Scope**

This Subpart establishes the requirements to be met by an organisation to qualify for the issue or continuation of an approval for the management of aircraft continuing airworthiness.

**M.A.702 Application**

An application for issue or variation of a continuing airworthiness management organisation approval shall be made on a form and in a manner established by the competent authority.

**M.A.703 Extent of approval**

- (a) The grant of approval is indicated by the issue of the certificate included in Appendix VI by the competent authority. The M.A.704 approved continuing airworthiness management exposition must specify the scope of work deemed to constitute approval, including reference to:
1. The approved maintenance programme, or
  2. In the case of aircraft not involved in commercial air transport, the "baseline" and/or "generic" maintenance programmes described in M.A.709.
- (b) Notwithstanding paragraph (a), for commercial air transport, the approval shall be part of the air operator certificate issued by the competent authority, for the aircraft operated.

**M.A.704 Continuing airworthiness management exposition**

- (a) The continuing airworthiness management organisation shall provide a continuing airworthiness management exposition containing the following information:
1. a statement signed by the accountable manager to confirm that the organisation will work in accordance with this Part and the exposition at all times, and;
  2. the organisation's scope of work, and;
  3. the title(s) and name(s) of person(s) referred to in M.A.706(b) and M.A.706(c), identifying, if applicable, which M.A.706(c) persons have authority to extend an airworthiness review certificate in accordance with M.A.711(a)4 and M.A.901(f), and;
  4. an organisation chart showing associated chains of responsibility between the person(s) referred to in M.A.706(b) and M.A.706(c), and;
  5. a list of M.A.707 airworthiness review staff, and;
  6. a general description and location of the facilities, and;
  7. procedures specifying how the continuing airworthiness management organisation ensures compliance with this Part, and;
  8. the continuing airworthiness management exposition amendment procedures.
- (b) The continuing airworthiness management exposition and its amendments shall be approved by the competent authority.
- (c) Notwithstanding paragraph (b) minor amendments to the exposition may be approved through an exposition procedure (hereinafter called indirect approval).

**M.A.705 Facilities**

The continuing airworthiness management organisation shall provide suitable office accommodation at appropriate locations for the personnel specified in M.A.706.

**M.A.706 Personnel requirements**

- (a) The organisation shall appoint an accountable manager, who has corporate authority for ensuring that all continuing airworthiness management activities can be financed and carried out in accordance with this Part.
- (b) For commercial air transport the paragraph (a) accountable manager shall be the person who also has corporate authority for ensuring that all the operations of the operator can be financed and carried out to the standard required for the issue of an air operator's certificate.
- (c) A person or group of persons shall be nominated with the responsibility of ensuring that the organisation is always in compliance with this Subpart. Such person(s) shall be ultimately responsible to the accountable manager.

The organisation shall define in the continuing airworthiness management exposition which of these persons, if any, have authority to extend an airworthiness review certificate in accordance with M.A.711(a)4 and M.A.901(f). Such person(s) shall be issued an authorisation once they have been formally accepted by the competent authority.

- (d) For commercial air transport, the accountable manager shall designate a nominated post holder. This person shall be responsible for the management and supervision of continuing airworthiness activities, pursuant to paragraph (c).
- (e) The nominated post holder referred to in paragraph (d) shall not be employed by a Part-145 approved organisation under contract to the operator, unless specifically agreed by the competent authority.
- (f) The organisation shall have sufficient appropriately qualified staff for the expected work.
- (g) All paragraph (c) and (d) persons shall be able to show relevant knowledge, background and appropriate experience related to aircraft continuing airworthiness.
- (h) The qualification of all personnel involved in continuing airworthiness management shall be recorded.

**M.A.707 Airworthiness review staff**

- (a) To be approved to carry out airworthiness reviews, an approved continuing airworthiness management organisation shall have appropriate airworthiness review staff to issue M.A. Subpart I airworthiness review certificates or recommendations. ~~In addition to M.A.706 requirements, these staff shall have acquired:~~

1. For

- all aircraft used in commercial air transport, and
- aircraft above 2730 Kg MTOM, except balloons,

these staff shall have acquired:

- a. at least five years experience in continuing airworthiness, and;
- b. an appropriate Part-66 licence or a nationally recognized maintenance personnel qualification appropriate to the aircraft category (when Part-66 refers to national rules) or an aeronautical degree or equivalent, and;
- c. formal aeronautical maintenance training, and;
- d. a position within the approved organisation with appropriate responsibilities.

Notwithstanding the above, the requirement shown in paragraph M.A.707(a)1(b) may be replaced by 5 years of experience in continuing airworthiness additional to those already required by paragraph M.A.707(a)1(a).

2. For

- aircraft of 2730 Kg MTOM and below, and
- balloons,

not used in commercial air transport,

these staff shall have acquired:

- a. at least three years experience in continuing airworthiness, and;
- b. an appropriate Part 66 licence or a nationally recognized maintenance personnel qualification appropriate to the aircraft category (when Part-66 refers to national rules) or an aeronautical degree or equivalent, and;
- c. appropriate aeronautical maintenance training, and;
- d. a position within the approved organisation with appropriate responsibilities

Notwithstanding the above, the requirement shown in paragraph M.A.707(a)2(b) may be replaced by 4 years of experience in continuing airworthiness additional to those already required by paragraph M.A.707(a)2(a).

- (b) Airworthiness review staff nominated by the approved continuing airworthiness organisation can only be issued an authorisation by the approved continuing airworthiness organisation when formally accepted by the competent authority after satisfactory completion of an airworthiness review under supervision.
- (c) The organisation shall ensure that aircraft airworthiness review staff can demonstrate appropriate recent continuing airworthiness management experience.
- (d) Airworthiness review staff shall be identified by listing each person in the continuing airworthiness management exposition together with their airworthiness review authorisation reference.
- (e) The organisation shall maintain a record of all airworthiness review staff, which shall include details of any appropriate qualification held together with a summary of relevant continuing airworthiness management experience and training and a copy of the authorisation. This record shall be retained until two years after the airworthiness review staff have left the organisation.

### **M.A.708 Continuing airworthiness management**

- (a) All continuing airworthiness management shall be carried out according to the prescriptions of M.A Subpart C.
- (b) For every aircraft managed, the approved continuing airworthiness management organisation shall:
  1. develop and control a maintenance programme for the aircraft managed including any applicable reliability programme,
  2. present the aircraft maintenance programme and its amendments to the competent authority for approval (unless covered by an indirect approval procedure in accordance with M.A.302) and provide a copy of the programme to the owner of non commercially operated aircraft,
  3. manage the approval of modification and repairs,
  4. ensure that all maintenance is carried out in accordance with the approved maintenance programme and released in accordance with M.A. Subpart H,
  5. ensure that all applicable airworthiness directives and operational directives with a continuing airworthiness impact, are applied,

6. ensure that all defects discovered during scheduled maintenance or reported are corrected by an appropriately approved maintenance organisation,
  7. ensure that the aircraft is taken to an appropriately approved maintenance organisation whenever necessary,
  8. coordinate scheduled maintenance, the application of airworthiness directives, the replacement of service life limited parts, and component inspection to ensure the work is carried out properly,
  9. manage and archive all continuing airworthiness records and/or operator's technical log.
  10. ensure that the mass and balance statement reflects the current status of the aircraft.
- (c) In the case of commercial air transport, when the operator is not appropriately approved to Part-145, the operator shall establish a written maintenance contract between the operator and a Part-145 approved organisation or another operator, detailing the functions specified under M.A.301-2, M.A.301-3, M.A.301-5 and M.A.301-6, ensuring that all maintenance is ultimately carried out by a Part-145 approved maintenance organisation and defining the support of the quality functions of M.A.712(b). The aircraft base, scheduled line maintenance and engine maintenance contracts, together with all amendments, shall be approved by the competent authority. However, in the case of:
1. an aircraft requiring unscheduled line maintenance, the contract may be in the form of individual work orders addressed to the Part-145 maintenance organisation.
  2. component maintenance, including engine maintenance, the contract as referred to in paragraph (c) may be in the form of individual work orders addressed to the Part-145 maintenance organisation.

### **M.A.709 Documentation**

The approved continuing airworthiness management organisation shall hold and use applicable current M.A.401 maintenance data in the performance of M.A.708 continuing airworthiness tasks. In the case of customer provided maintenance data, it is only necessary to have such data when there is a contract with such a customer, with the exception of the need to comply with M.A.714.

For aircraft not involved in commercial air transport, in order to allow the initial approval and/or the extension of the scope of an existing continuing airworthiness management organisation approval without having any customers under contract for the requested scope of work, it is acceptable to develop "baseline" and/or "generic" maintenance programmes as follows:

- **"Baseline" maintenance programme:** it is a maintenance programme developed for a particular aircraft type following the maintenance review board (MRB) report, where applicable, and the TC holder's maintenance planning document (MPD), the relevant chapters of the maintenance manual or any other maintenance data containing information on scheduling.
- **"Generic" maintenance programme:** it is a maintenance programme that may be developed to cover similar types of aircraft. These programmes shall be based on the same type of instructions as the baseline maintenance programme.

The reference of the "baseline" and "generic" maintenance programmes, as applicable, shall be included in the continuing airworthiness management exposition (CAME) as required by M.A.703.

### **M.A.710 Airworthiness review**

- (a) To satisfy the requirement for an M.A.902 airworthiness review of an aircraft, a full documented review of the aircraft records shall be carried out by the approved continuing airworthiness management organisation in order to be satisfied that:



1. airframe, engine and propeller flying hours and associated flight cycles have been properly recorded, and;
  2. the flight manual is applicable to the aircraft configuration and reflects the latest revision status, and;
  3. all the maintenance due on the aircraft according to the approved maintenance programme has been carried out, and;
  4. all known defects have been corrected or, when applicable, carried forward in a controlled manner, and;
  5. all applicable airworthiness directives have been applied and properly registered, and;
  6. all modifications and repairs applied to the aircraft have been registered and are approved according to Part-21, and;
  7. all service life limited components installed on the aircraft are properly identified, registered and have not exceeded their approved service life limit, and;
  8. all maintenance has been released in accordance with this Part, and;
  9. the current mass and balance statement reflects the configuration of the aircraft and is valid, and;
  10. the aircraft complies with the latest revision of its type design approved by the Agency.
- (b) The approved continuing airworthiness management organisation's airworthiness review staff shall carry out a physical survey of the aircraft. For this survey, airworthiness review staff not appropriately qualified to Part-66 shall be assisted by such qualified personnel.
- (c) Through the physical survey of the aircraft, the airworthiness review staff shall ensure that:
1. all required markings and placards are properly installed, and;
  2. the aircraft complies with its approved flight manual, and;
  3. the aircraft configuration complies with the approved documentation, and;
  4. no evident defect can be found that has not been addressed according to M.A.404, and;
  5. no inconsistencies can be found between the aircraft and the paragraph (a) documented review of records.
- (d) By derogation to M.A.902(a) the airworthiness review can be anticipated by a maximum period of 90 days without loss of continuity of the airworthiness review pattern, to allow the physical review to take place during a maintenance check.
- (e) An M.A.902 airworthiness review certificate (EASA Form 15b) or a recommendation is issued by appropriately authorised M.A.707 airworthiness review staff on behalf of the approved continuing airworthiness management organisation when satisfied that the airworthiness review has been properly carried out.
- (f) A copy of any airworthiness review certificate issued or extended for an aircraft shall be sent to the Member State of Registry of that aircraft within 10 days.
- (g) Airworthiness review tasks shall not be sub-contracted.
- (h) Should the outcome of the airworthiness review be inconclusive, the competent authority shall be informed.

### **M.A.711 Privileges of the organisation**

- (a) An approved continuing airworthiness management organisation, may:
1. manage the continuing airworthiness of non-commercial air transport aircraft as listed on the approval certificate.
  2. manage the continuing airworthiness of commercial air transport aircraft when listed on both its approval certificate and its air operator certificate.

3. arrange to carry out any task of continuing airworthiness within the limitation of its approval with another contracted organisation that is working under its quality system.
  4. extend, under the conditions of M.A.901(f), an airworthiness review certificate that has been issued by the competent authority or by another M.A. Subpart G organisation.
- (b) An approved continuing airworthiness management organisation, may, additionally, be approved to carry out M.A.710 airworthiness reviews and:
1. issue ~~an~~ the related airworthiness review certificate, ~~or,~~ and,
  2. make a recommendation for the airworthiness review to the competent authority of the a Member State of Registry. For all balloons and any other aircraft of 2730 Kg MTOM and below, not used in commercial air transport, the recommendation shall be issued only on the import of an aircraft from a third country in accordance with Part-21 and M.A.904.
- (c) An organisation shall be registered in one of the Member States to be granted the privilege pursuant to paragraph (b).

### **M.A.712 Quality system**

- (a) To ensure that the approved continuing airworthiness management organisation continues to meet the requirements of this Subpart, it shall establish a quality system and designate a quality manager to monitor compliance with, and the adequacy of, procedures required to ensure airworthy aircraft. Compliance monitoring shall include a feedback system to the accountable manager to ensure corrective action as necessary.
- (b) The quality system shall monitor M.A. Subpart G activities. It shall at least include the following functions:
1. monitoring that all M.A. Subpart G activities are being performed in accordance with the approved procedures, and;
  2. monitoring that all contracted maintenance is carried out in accordance with the contract, and;
  3. monitoring the continued compliance with the requirements of this Part.
- (c) The records of these activities shall be stored for at least two years.
- (d) Where the approved continuing airworthiness management organisation is approved in accordance with another Part, the quality system may be combined with that required by the other Part.
- (e) In case of commercial air transport the M.A. Subpart G quality system shall be an integrated part of the operator's quality system.
- (f) In the case of a small M.A. Subpart G organisation not involved in aircraft used in commercial air transport that does not have the privileges granted under M.A.711(b), the quality system can be replaced by performing organisational reviews on a regular basis except when the organisation issues airworthiness review certificates for aircraft above 2730 kg MTOM other than balloons.
- However, a continuing airworthiness management organisation that does not have a Quality System shall not sub-contract continuing airworthiness management tasks to other organisations.

### **M.A.713 Changes to the approved continuing airworthiness organisation**

In order to enable the competent authority to determine continued compliance with this Part, the approved continuing airworthiness management organisation shall notify it of any proposal to carry out any of the following changes, before such changes take place:

1. the name of the organisation.

2. the location of the organisation.
3. additional locations of the organisation.
4. the accountable manager.
5. any of the persons specified in M.A.706(c).
6. the facilities, procedures, work scope and staff that could affect the approval.

In the case of proposed changes in personnel not known to the management beforehand, these changes shall be notified at the earliest opportunity.

#### **M.A.714 Record-keeping**

- (a) The continuing airworthiness management organisation shall record all details of work carried out. The records required by M.A.305 and if applicable M.A.306 shall be retained.
- (b) The continuing airworthiness management organisation shall retain a copy of any airworthiness review certificate that it has extended under the privilege M.A.711(a)4. In addition, if the continuing airworthiness management organisation has the privilege of M.A.711(b), it shall retain a copy of each airworthiness review certificate and recommendation issued, together with all supporting documents.
- (c) The continuing airworthiness management organisation shall retain a copy of all records listed in paragraph (b) until two years after the aircraft has been permanently withdrawn from service.
- (d) The records shall be stored in a manner that ensures protection from damage, alteration and theft.
- (e) All computer hardware used to ensure backup shall be stored in a different location from that containing the working data in an environment that ensures they remain in good condition.
- (f) Where continuing airworthiness management of an aircraft is transferred to another organisation or person, all retained records shall be transferred to the said organisation or person. The time periods prescribed for the retention of records shall continue to apply to the said organisation or person.
- (g) Where a continuing airworthiness management organisation terminates its operation, all retained records shall be transferred to the owner of the aircraft.

#### **M.A.715 Continued validity of approval**

- (a) An approval shall be issued for an unlimited duration. It shall remain valid subject to:
  1. the organisation remaining in compliance with this Part, in accordance with the provisions related to the handling of findings as specified under M.B.705 and;
  2. the competent authority being granted access to the organisation to determine continued compliance with this Part, and;
  3. the approval not being surrendered or revoked.
- (b) Upon surrender or revocation, the approval certificate shall be returned to the competent authority.

#### **M.A.716 Findings**

- (a) A level 1 finding is any significant non-compliance with Part-M requirements which lowers the safety standard and hazards seriously the flight safety.
- (b) A level 2 finding is any non-compliance with the Part-M requirements which could lower the safety standard and possibly hazard the flight safety.

- (c) After receipt of notification of findings according to M.B.705, the holder of the continuing airworthiness management organisation approval shall define a corrective action plan and demonstrate corrective action to the satisfaction of the competent authority within a period agreed with this authority.

## SUBPART H

### CERTIFICATE OF RELEASE TO SERVICE — CRS

#### **M.A.801 Aircraft certificate of release to service**

- (a) Except for aircraft released to service by a Part-145 organisation, the certificate of release to service shall be issued according to this Subpart.
- (b) A certificate of release to service shall be issued before flight at the completion of any maintenance. When satisfied that all maintenance required has been properly carried out, a certificate of release to service shall be issued:
1. By appropriate certifying staff on behalf of the M.A. Subpart F approved maintenance organisation; or
  2. Except for complex maintenance tasks listed in Appendix ~~7~~ VII, by certifying staff in compliance with the requirements of Part-66; or
  3. By the M.A.803 ~~p~~Pilot-owner.
- (c) For ELA1 aircraft not used in commercial air transport, aircraft complex maintenance tasks listed in Appendix VII may be released by M.A.801(b)(2) certifying staff, subject to the owner agreeing a programme of work with the competent authority prior to commencement of these tasks and the competent authority being satisfied that the M.A.801(b)(2) certifying staff holds appropriate qualifications and recent experience, the applicable maintenance data, tools, equipment and materials and has access to proper facilities.
- (d) By derogation to M.A.801(b), for aircraft not involved in commercial air transport other than large aircraft, and only until 28 September 2009, certifying staff may be qualified in accordance with the relevant Member State regulation.
- (e) By derogation to M.A.801(b), in the case of unforeseen situations, where an aircraft is grounded at a location where no approved maintenance organisation or appropriate certifying staff are available, the owner may authorise any person, with not less than 3 years of appropriate maintenance experience and holding the proper qualifications, to maintain according to the standards set out in subpart D and release the aircraft, provided there is no organisation appropriately approved under this Part or Part 145 at that location.
- The owner shall:
1. obtain and keep in the aircraft records details of all the work carried out and of the qualifications held by that person issuing the certification, and
  2. ensure that any such maintenance is rechecked and released by an appropriately authorised M.A.801(b) person or a Subpart F organisation or a Part-145 organisation at the earliest opportunity but within a period not exceeding 7 days, and
  3. notify the Subpart G organisation responsible for continuing airworthiness management when contracted in accordance with M.A.201(e), or the competent authority in the absence of such a contract, within 7 days of the issuance of such certification authorisation.
- (f) ~~(e)~~ In the case of a release to service under M.A.801(b)2 or M.A.801(c) the certifying staff may be assisted in the execution of the maintenance tasks by one or more persons under his direct and continuous control.
- (g) ~~(d)~~ A certificate of release to service shall contain basic details of the maintenance carried out, the date such maintenance was completed and:

1. the identity including approval reference of the M.A. Subpart F approved maintenance organisation and certifying staff issuing such a certificate; or
  2. in the case of subparagraph M.A.801(b)2 or M.A.801(c) certificate of release to service, the identity and if applicable licence number of the certifying staff issuing such a certificate.
- (h) ~~(e)~~ Notwithstanding paragraph (b) in the case of incomplete maintenance, such fact shall be entered in the aircraft certificate of release to service before the issue of such certificate.
- (i) ~~(f)~~ A certificate of release to service shall not be issued in the case of any known non-compliance which hazards seriously the flight safety.

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

- (a) A certificate of release to service shall be issued at the completion of any maintenance performed on an aircraft component in accordance with M.A.502 whilst off the aircraft.
- (b) The authorised release certificate identified as EASA Form 1 for the Member States constitutes the aircraft component certificate of release to service, except when such maintenance on aircraft components has been performed in accordance with paragraphs M.A.502(b) or M.A.502(d), in which case the maintenance will be subject to aircraft release procedures.
- (c) By derogation to M.A.802(b), for aircraft not involved in commercial air transport other than large aircraft, component certificates of release to service issued prior to 28 September 2009 by an organisation approved under the relevant Member State regulation are considered equivalent to an EASA Form 1.

### **M.A.803 Pilot-owner authorisation**

- (a) ~~The pilot owner is the person who owns or jointly owns the aircraft being maintained and holds a valid pilot licence with the appropriate type or class rating.~~
- To qualify as a Pilot-owner, the person must:
1. hold a valid pilot licence (or equivalent) issued or validated by a Member State for the aircraft type or class rating and;
  2. own the aircraft, either as;
    - (i) sole owner, or
    - (ii) joint owner who is:
      - one of the natural persons on the registration form, or
      - a member of a non-profit recreational legal entity, where the legal entity is specified on the registration document as owner, and that individual is directly involved in the decision making process of the legal entity and designated by that legal entity to carry out Pilot-owner maintenance.
- (b) For any privately operated aircraft of simple design with a maximum take-off mass of equal or less than 2730 Kg, glider sailplane, powered sailplane and balloon, the Pilot-owner may issue the certificate of release to service after limited Pilot-owner maintenance specified listed in Appendix VIII.
- (c) The scope of limited Pilot-owner maintenance shall be specified defined in the M.A.302 aircraft maintenance programme.
- (d) The certificate of release to service must be entered in the logbooks and contain basic details of the maintenance carried out, the maintenance data used, the date such

maintenance was completed and the identity, the signature and pilot licence number of the Pilot-owner issuing such a certificate.

## SUBPART I

### AIRWORTHINESS REVIEW CERTIFICATE

#### **M.A.901 Aircraft airworthiness review**

To ensure the validity of the aircraft airworthiness certificate an airworthiness review of the aircraft and its continuing airworthiness records must be carried out periodically.

(a) An airworthiness review certificate is issued in accordance with Appendix III (EASA Form 15a or 15b) on completion of a satisfactory airworthiness review and is valid one year.

(b) An aircraft in a controlled environment is an aircraft continuously managed during the previous 12 months by a unique M.A. Subpart G organisation, and which has been maintained for the previous 12 months by approved maintenance organisations. This includes M.A.803(b) maintenance tasks carried out and released to service according to M.A.801(b)2 or M.A.801(b)3.

(c) For

- all aircraft used in commercial air transport, and
- aircraft above 2730 Kg MTOM, except balloons,

that are in a controlled environment, the M.A. Subpart G organisation managing the aircraft may if appropriately approved:

1. issue the airworthiness review certificate in accordance with M.A.710, and;
2. for airworthiness review certificates it has issued, when the aircraft has remained within a controlled environment, extend twice the validity of the airworthiness review certificate for a period of one year each time. An airworthiness review certificate shall not be extended if the organisation is aware or has reason to believe that the aircraft is not airworthy.

(d) For

- all aircraft used in commercial air transport, and
- aircraft above 2730 Kg MTOM, except balloons,

that are not in a controlled environment, or that are managed by an M.A. Subpart G organisation which does not hold the privilege to carry out airworthiness reviews, the airworthiness review certificate shall be issued by the competent authority following a satisfactory assessment based on a recommendation made by an appropriately approved M.A. Subpart G organisation sent together with the application from the owner or operator. This recommendation shall be based on an airworthiness review carried out in accordance with M.A.710.

(e) For

- aircraft of 2730 Kg MTOM and below, and
- balloons,

not used in commercial air transport,

any M.A. Subpart G organisation appointed by the owner/operator may if appropriately approved:

1. issue the airworthiness review certificate in accordance with M.A.710, and;
2. for airworthiness review certificates it has issued, when the aircraft has remained within a controlled environment under its management, extend twice the validity of the airworthiness review certificate for a period of one year each time. An airworthiness

review certificate shall not be extended if the organisation is aware or has reason to believe that the aircraft is not airworthy.

(f) By derogation to M.A.901(c)2 and M.A.901(e)2, for aircraft that are in a controlled environment and are not used in commercial air transport, the M.A. Subpart G organisation managing the aircraft may extend twice for a period of one year each time the validity of an airworthiness review certificate that has been issued by the competent authority or by another M.A. Subpart G organisation. An airworthiness review certificate shall not be extended if the organisation is aware or has reason to believe that the aircraft is not airworthy.

(g) By derogation to M.A.901(e) and M.A.901(h)2, for ELA1 aircraft not used in commercial air transport, the airworthiness review certificate may be issued by the competent authority following a satisfactory assessment based on a recommendation, made by certifying staff complying with Part-66 and M.A.707(a)2(a), sent together with the application from the owner or operator. This recommendation shall be based on an airworthiness review carried out in accordance with M.A.710.

This derogation shall not be applied more than two consecutive years, being required that every three years the airworthiness review certificate is issued either by the competent authority or by an appropriately approved M.A. Subpart G organisation after they have performed an airworthiness review in accordance with M.A.710.

In all cases, and in order to apply this derogation, the competent authority has to formally accept the certifying staff after verification of the qualifications and after the satisfactory performance of an airworthiness review under the supervision of the competent authority.

The certifying staff that will perform the airworthiness review has to be provided with the necessary documentation and suitable accommodation at the appropriate location.

(h) The competent authority shall carry out the airworthiness review and issue the airworthiness review certificate itself in the following cases:

1. whenever circumstances show the existence of a potential safety threat, or
2. whenever it is requested by the owner for all balloons and any other aircraft of 2730 Kg MTOM and below, not used in commercial air transport.

(i) In addition to paragraph (h), the competent authority may also carry out the airworthiness review and issue the airworthiness review certificate itself for aircraft not involved in commercial air transport when the aircraft is managed by an M.A. Subpart G organisation located in a third country.

(j) When the competent authority carries out the airworthiness review and/or issues the airworthiness review certificate itself, the owner or operator shall provide the competent authority with:

- the documentation required by the competent authority,
- suitable accommodation at the appropriate location for its personnel, and
- when necessary the support of personnel appropriately qualified in accordance with Part-66 or equivalent per 145.A.30(j)(1) and (2).

(k) By derogation to M.A.901(a) through (j), for aircraft not used in commercial air transport, any airworthiness review certificate issued in accordance with the Member State regulations and valid on 28 September 2008 shall be valid until its expiration date or until 28 September 2009, whichever comes first.

After this point, the competent authority or an organisation appropriately approved under the Member State regulations may further re-issue or extend the airworthiness review certificate a maximum of two times for periods of one year each time, if allowed by and following the procedures of the Member State regulation.

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

- (a) An airworthiness review certificate becomes invalid if:
1. suspended or revoked; or
  2. the airworthiness certificate is suspended or revoked; or
  3. the aircraft is not on the aircraft register of a Member State; or
  4. the type certificate under which the airworthiness certificate was issued is suspended or revoked.
- (b) An aircraft must not fly if the airworthiness certificate is invalid or if:
1. the continuing airworthiness of the aircraft or any component fitted to the aircraft does not meet the requirements of this Part, or;
  2. the aircraft does not remain in conformity with the type design approved by the Agency; or
  3. the aircraft has been operated beyond the limitations of the approved flight manual or the airworthiness certificate, without appropriate action being taken; or
  4. the aircraft has been involved in an accident or incident that affects the airworthiness of the aircraft, without subsequent appropriate action to restore airworthiness; or
  5. a modification or repair has not been approved in accordance with Part-21.
- (c) Upon surrender or revocation, the airworthiness review certificate shall be returned to the competent authority.

**M.A.903 Transfer of aircraft registration within the EU**

- (a) When transferring an aircraft registration within the EU, the applicant shall:
1. inform the former Member State in which Member State it will be registered, then;
  2. apply to the new Member State for the issuance of a new airworthiness certificate in accordance with Part 21.
- (b) Notwithstanding M.A.902(a)(3), the former airworthiness review certificate shall remain valid until its expiry date.
- (c) By derogation to M.A.903(b), the Member State in which the aircraft will be registered may not accept the former airworthiness review certificate when it has been issued in accordance with M.A.901(k). In such a case, a new airworthiness review certificate shall be issued in accordance with M.A.904.

**M.A.904 Airworthiness review of aircraft imported into the EU**

- (a) When importing an aircraft onto a Member State register from a third country, the applicant shall:
1. apply to the Member State of registry for the issuance of a new airworthiness certificate in accordance with Part-21; and
  2. have an airworthiness review carried out by an appropriately approved continuing airworthiness management organisation or, in the case of ELA1 aircraft, by the competent authority; and
  3. have all maintenance carried out as requested by the continuing airworthiness management organisation or, in the case of ELA1 aircraft, by the competent authority as necessary to comply with the M.A.302 approved maintenance programme carried out.
- (b) When satisfied that the aircraft is in compliance with the relevant requirements, the continuing airworthiness management organisation, if applicable, shall send a documented



recommendation for the issuance of an airworthiness review certificate to the Member State of registry.

- (c) The owner shall allow access to the aircraft for inspection by the Member State of registry.
- (d) A new airworthiness certificate will be issued by the Member State of registry when it is satisfied the aircraft complies with the prescriptions of Part-21.
- (e) The Member State shall also issue the airworthiness review certificate valid normally for one year unless the Member State has safety reason to limit the validity.
- (f) By derogation to M.A.904(a)2, for aircraft not involved in commercial air transport, and only until 28 September 2009, the airworthiness review may be performed by an organisation appropriately approved under the Member State regulations.

### **M.A.905 Findings**

- (a) A level 1 finding is any significant non-compliance with Part-M requirements which lowers the safety standard and hazards seriously the flight safety.
- (b) A level 2 finding is any non-compliance with the Part-M requirements which could lower the safety standard and possibly hazard the flight safety.
- (c) After receipt of notification of findings according to M.B.303, the person or organisation accountable according to M.A.201 shall define a corrective action plan and demonstrate corrective action to the satisfaction of the competent authority within a period agreed with this authority including appropriate corrective action to prevent reoccurrence of the finding and its root cause.

## SECTION B

### **PROCEDURE FOR COMPETENT AUTHORITIES**

#### SUBPART A

##### *GENERAL*

### **M.B.101 Scope**

This Section establishes the administrative requirements to be followed by the competent authorities in charge of the application and the enforcement of Section A of this Part.

### **M.B.102 Competent authority**

#### (a) *General*

A Member State shall designate a competent authority with allocated responsibilities for the issuance, continuation, change, suspension or revocation of certificates and for the oversight of continuing airworthiness. This competent authority shall establish documented procedures and an organisational structure.

#### (b) *Resources*

The number of staff shall be appropriate to carry out the requirements as detailed in this Section B.

#### (c) *Qualification and training*

All staff involved in Part-M activities shall be appropriately qualified and have appropriate knowledge, experience, initial training and continuation training to perform their allocated tasks.

(d) *Procedures*

The competent authority shall establish procedures detailing how compliance with this Part is accomplished.

The procedures shall be reviewed and amended to ensure continued compliance.

**M.B.103 Acceptable means of compliance**

The Agency shall develop acceptable means of compliance that the Member States may use to establish compliance with this Part. When the acceptable means of compliance are complied with, the related requirements of this Part shall be considered as met.

**M.B.104 Record-keeping**

- (a) The competent authorities shall establish a system of record-keeping that allows adequate traceability of the process to issue, continue, change, suspend or revoke each certificate.
- (b) The records for the oversight of Part-M approved organisations shall include as a minimum:
1. the application for an organisation approval.
  2. the organisation approval certificate including any changes.
  3. a copy of the audit program listing the dates when audits are due and when audits were carried out.
  4. the competent authority continued oversight records including all audit records.
  5. copies of all relevant correspondence.
  6. details of any exemption and enforcement actions.
  7. any report from other competent authorities relating to the oversight of the organisation.
  8. organisation exposition or manual and amendments.
  9. copy of any other document directly approved by the competent authority.
- (c) The retention period for the paragraph (b) records shall be at least four years.
- (d) The minimum records for the oversight of each aircraft shall include, at least, a copy of:
1. aircraft certificate of airworthiness,
  2. airworthiness review certificates,
  3. Section A Subpart G organisation recommendations,
  4. reports from the airworthiness reviews carried out directly by the Member State,
  5. all relevant correspondence relating to the aircraft,
  6. details of any exemption and enforcement action(s),
  7. any document directly approved by the competent authority as referred to in M.B. Subpart B.
- (e) The records specified in paragraph (d) shall be retained until two years after the aircraft has been permanently withdrawn from service.
- (f) All records specified in M.B.104 shall be made available upon request by another Member State or the Agency.

**M.B.105 Mutual exchange of information**

- (a) In order to contribute to the improvement of air safety, the competent authorities shall participate in a mutual exchange of all necessary information in accordance with Article 11 of the basic Regulation.
- (b) Without prejudice to the competencies of the Member States, in the case of a potential safety threat involving several Member States, the concerned competent authorities shall assist each other in carrying out the necessary oversight action.

SUBPART B  
*ACCOUNTABILITY*

**M.B.201 Responsibilities**

The competent authorities as specified in M.1 are responsible for conducting inspections and investigations in order to verify that the requirements of this Part are complied with.

SUBPART C  
*CONTINUING AIRWORTHINESS*

**M.B.301 Maintenance programme**

- (a) The competent authority shall verify that the maintenance programme is in compliance with M.A.302.
- (b) Except where stated otherwise in ~~M.A.302(e)~~ M.A.302(c) the maintenance programme and its amendments shall be approved directly by the competent authority.
- (c) In the case of indirect approval, the maintenance programme procedure shall be approved by the competent authority through the continuing airworthiness management exposition.
- (d) In order to approve a maintenance programme according to paragraph (b), the competent authority shall have access to all the data required in M.A.302~~(c) and (d)~~, (e) and (f).

**M.B.302 Exemptions**

All exemptions granted in accordance with Article 10(3) of the basic Regulation shall be recorded and retained by the competent authority.

**M.B.303 Aircraft continuing airworthiness monitoring**

- (a) ~~Every~~ The competent authority shall develop a survey programme to monitor the airworthiness status of the fleet of aircraft on its register.
- (b) The survey programme shall include sample product surveys of aircraft.
- (c) The programme shall be developed taking into account the number of aircraft on the register, local knowledge and past surveillance activities.
- (d) The product survey shall focus on a number of key risk airworthiness elements and identify any findings. Furthermore, the competent authority shall analyse each finding to determine its root cause.
- (e) All findings shall be confirmed in writing to the person or organisation accountable according to M.A.201.
- (f) The competent authority shall record all findings, closure actions and recommendations.
- (g) If during aircraft surveys evidence is found showing non-compliance to a Part-M requirement, the competent authority shall take actions in accordance with M.B.903.

- (h) If the root cause of the finding identifies a non-compliance with any Subpart or with another Part, the non-compliance shall be dealt with as prescribed by the relevant Part.
- (i) In order to facilitate appropriate enforcement action, competent authorities shall exchange information on non compliances identified in accordance with paragraph (h) above.

### **M.B.304 Revocation, suspension and limitation**

The competent authority shall:

- (a) suspend an airworthiness review certificate on reasonable grounds in the case of potential safety threat, or;
- (b) suspend, revoke or limit an airworthiness review certificate pursuant to M.B.303(g).

#### SUBPART D

##### *MAINTENANCE STANDARDS*

(to be developed as appropriate)

#### SUBPART E

##### *COMPONENTS*

(to be developed as appropriate)

#### SUBPART F

##### *MAINTENANCE ORGANISATION*

### **M.B.601 Application**

Where maintenance facilities are located in more than one Member State the investigation and continued oversight of the approval shall be carried out in conjunction with the competent authorities designated by the Member States in whose territory the other maintenance facilities are located.

### **M.B.602 Initial Approval**

- (a) Provided the requirements of M.A.606(a) and (b) are complied with, the competent authority shall formally indicate its acceptance of the M.A.606(a) and (b) personnel to the applicant in writing.
- (b) The competent authority shall establish that the procedures specified in the maintenance organisation manual comply with M.A Subpart F and ensure the accountable manager signs the commitment statement.
- (c) The competent authority shall verify that the organisation is in compliance with the Part-M.A Subpart F requirements.
- (d) A meeting with the accountable manager shall be convened at least once during the investigation for approval to ensure that he/she fully understands the significance of the approval and the reason for signing the commitment of the organisation to compliance with the procedures specified in the manual.
- (e) All findings shall be confirmed in writing to the applicant organisation.
- (f) The competent authority shall record all findings, closure actions (actions required to close a finding) and recommendations.

- (g) For initial approval all findings shall be corrected by the organisation and closed by the competent authority before the approval can be issued.

### **M.B.603 Issue of approval**

- (a) The competent authority shall issue to the applicant an EASA Form 3 approval certificate (Appendix V) which includes the extent of approval, when the maintenance organisation is in compliance with the applicable paragraphs of this Part.
- (b) The competent authority shall indicate the conditions attached to the approval on the EASA Form 3 approval certificate.
- (c) The reference number shall be included on the EASA Form 3 approval certificate in a manner specified by the Agency.

### **M.B.604 Continuing oversight**

- (a) The competent authority shall keep and update a program listing for each M.A Subpart F approved maintenance organisations under its supervision, the dates when audit visits are due and when such visits were carried out.
- (b) Each organisation shall be completely audited at periods not exceeding 24 months.
- (c) All findings shall be confirmed in writing to the applicant organisation.
- (d) The competent authority shall record all findings, closure actions (actions required to close a finding) and recommendations.
- (e) A meeting with the accountable manager shall be convened at least once every 24 months to ensure he/she remains informed of significant issue arising during audits.

### **M.B.605 Findings**

- (a) When during audits or by other means evidence is found showing non-compliance to the Part-M requirement, the competent authority shall take the following actions:
1. For level 1 findings, immediate action shall be taken by the competent authority to revoke, limit or suspend in whole or in part, depending upon the extent of the level 1 finding, the maintenance organisation approval, until successful corrective action has been taken by the organisation.
  2. For level 2 findings, the competent authority shall grant a corrective action period appropriate to the nature of the finding that shall not be more than three months. In certain circumstances, at the end of this first period and subject to the nature of the finding, the competent authority can extend the three month period subject to a satisfactory corrective action plan.
- (b) Action shall be taken by the competent authority to suspend in whole or part the approval in case of failure to comply within the timescale granted by the competent authority.

### **M.B.606 Changes**

The competent authority shall comply with the applicable elements of the initial process paragraphs for any change to the organisation notified in accordance with M.A.617.

The competent authority may prescribe the conditions under which the M.A. Subpart F approved maintenance organisation may operate during such changes unless it determines that the approval should be suspended

For any change to the maintenance organisation manual:

- (a) In the case of direct approval of amendments of the maintenance organisation manual, the competent authority shall verify that the procedures specified in the manual are in

compliance with Part-M before formally notifying the approved organisation of the approval.

- (b) In the case of indirect approval of amendments of the maintenance organisation manual, the competent authority shall ensure that it has an adequate control over the approval of all manual amendments.

~~(c) The competent authority may prescribe the conditions under which the M.A. Subpart F approved maintenance organisation may operate during such changes unless it determines that the approval should be suspended.~~

### **M.B.607 Revocation, suspension and limitation of an approval**

The competent authority shall:

- (a) suspend an approval on reasonable grounds in the case of potential safety threat, or;  
 (b) suspend, revoke or limit an approval pursuant to M.B.605.

## SUBPART G

### *CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION*

#### **M.B.701 Application**

- (a) For commercial air transport the competent authority shall receive for approval with the initial application for the air operator's certificate and where applicable any variation applied for and for each aircraft type to be operated:
1. the continuing airworthiness management exposition;
  2. the operator's aircraft maintenance programmes;
  3. the aircraft technical log;
  4. where appropriate the technical specification of the maintenance contracts between the operator and Part-145 approved maintenance organisation.
- (b) Where facilities are located in more than one Member State the investigation and continued oversight of the approval shall be carried out in conjunction with the competent authorities designated by the Member States in whose territory the other facilities are located.

#### **M.B.702 Initial approval**

- (a) Provided the requirements of M.A.706(a), (c), (d) and M.A.707 are complied with, the competent authority shall formally indicate its acceptance of the M.A.706(a), (c), (d) and M.A.707 personnel to the applicant in writing.
- (b) The competent authority shall establish that the procedures specified in the continuing airworthiness management exposition comply with Part-M.A.Subpart G and ensure the accountable manager signs the commitment statement.
- (c) The competent authority shall verify the organisation's compliance with M.A.Subpart G requirements.
- (d) A meeting with the accountable manager shall be convened at least once during the investigation for approval to ensure that he/she fully understands the significance of the approval and the reason for signing the exposition commitment of the organisation to compliance with the procedures specified in the continuing airworthiness management exposition.
- (e) All findings shall be confirmed in writing to the applicant organisation.

- (f) The competent authority shall record all findings, closure actions (actions required to close a finding) and recommendations.
- (g) For initial approval all findings shall be corrected by the organisation and closed by the competent authority before the approval can be issued.

#### **M.B.703 Issue of approval**

- (a) The competent authority shall issue to the applicant an EASA Form 14 approval certificate (Appendix VI) which includes the extent of approval, when the continuing airworthiness management organisation is in compliance with M.A. Subpart G.
- (b) The competent authority shall indicate the validity of the approval on the EASA Form 14 approval certificate.
- (c) The reference number shall be included on the Form 14 approval certificate in a manner specified by the Agency.
- (d) In the case of commercial air transport, the information contained on an EASA Form 14 will be included on the air operator's certificate.

#### **M.B.704 Continuing oversight**

- (a) The competent authority shall keep and update a program listing for each M.A. Subpart G approved continuing airworthiness organisations under its supervision, the dates when audit visits are due and when such visits were carried out.
- (b) Each organisation shall be completely audited at periods not exceeding 24 months.
- (c) A relevant sample of the aircraft managed by the M.B. Subpart G approved organisation shall be surveyed in every 24 month period. The size of the sample will be decided by the competent authority based on the result of prior audits and earlier product surveys.
- (d) All findings shall be confirmed in writing to the applicant organisation.
- (e) The competent authority shall record all findings, closure actions (actions required to close a finding) and recommendations.
- (f) A meeting with the accountable manager shall be convened at least once every 24 months to ensure he/she remains informed of significant issues arising during audits.

#### **M.B.705 Findings**

- (a) When during audits or by other means evidence is found showing non-compliance to the Part-M requirement, the competent authority shall take the following actions:
  1. For level 1 findings, immediate action shall be taken by the competent authority to revoke, limit or suspend in whole or in part, depending upon the extent of the level 1 finding, the continuing airworthiness management organisation approval, until successful corrective action has been taken by the organisation.
  2. For level 2 findings, the competent authority shall grant a corrective action period appropriate to the nature of the finding that shall not be more than three months. In certain circumstances, at the end of this first period, and subject to the nature of the finding the competent authority can extend the three month period subject to a satisfactory corrective action plan.
- (b) Action shall be taken by the competent authority to suspend in whole or part the approval in case of failure to comply within the timescale granted by the competent authority.

**M.B.706 Changes**

The competent authority shall comply with the applicable elements of the initial process paragraphs for any change to the organisation notified in accordance with M.A.713.

The competent authority may prescribe the conditions under which the M.A. Subpart G approved continuing airworthiness management organisation may operate during such changes unless it determines that the approval should be suspended

For any change to the continuing airworthiness management exposition:

- (a) In the case of direct approval of the amendments of continuing airworthiness management exposition, the competent authority shall verify that the procedures specified in the exposition are in compliance with Part-M before formally notifying the approved organisation of the approval.
- (b) In the case of indirect approval of amendments of the continuing airworthiness management exposition, the competent authority shall ensure that it has an adequate control over the approval of all exposition amendments.
- ~~(c) The competent authority may prescribe the conditions under which M.A. Subpart G approved continuing airworthiness management organisation may operate during such changes.~~

**M.B.707 Revocation, suspension and limitation of an approval**

The competent authority shall:

- (a) suspend an approval on reasonable grounds in the case of potential safety threat, or;
- (b) suspend, revoke or limit an approval pursuant to M.B.705.

## SUBPART H

*CERTIFICATE OF RELEASE TO SERVICE — CRS*

(to be developed as appropriate)

## SUBPART I

*AIRWORTHINESS REVIEW CERTIFICATE***M.B.901 Assessment of recommendations**

Upon receipt of an application and associated airworthiness review certificate recommendation in accordance with ~~M.A.902(d)~~ M.A.901:

1. Appropriate qualified personnel from the competent authority shall verify that the compliance statement contained in the recommendation demonstrates that a complete M.A.710 airworthiness review has been carried out.
2. The competent authority shall investigate and may request further information to support the assessment of the recommendation.

**M.B.902 Airworthiness review by the competent authority**

- (a) When the competent authority ~~decides to carry out~~ carries out the airworthiness review and issue the airworthiness review certificate EASA Form 15a (Appendix III), the competent authority shall carry out an airworthiness review in accordance with the prescriptions of M.A.710.
- (b) The competent authority shall have appropriate airworthiness review staff to carry out the airworthiness reviews. ~~These staff shall have acquired:~~



1. at least five years experience in continuing airworthiness, and;
2. an appropriate Part 66 licence or an aeronautical degree or equivalent, and;
3. formal aeronautical maintenance training, and;
4. a position with appropriate responsibilities.

1. For

- all aircraft used in commercial air transport, and
- aircraft above 2730 Kg MTOM, except balloons,

these staff shall have acquired:

- a. at least five years experience in continuing airworthiness, and;
- b. an appropriate Part-66 licence or an aeronautical degree or equivalent, and;
- c. formal aeronautical maintenance training, and;
- d. a position within the approved organisation with appropriate responsibilities.

2. For

- aircraft of 2730 Kg MTOM and below, and
- balloons,

not used in commercial air transport,

these staff shall have acquired:

- a. at least three years experience in continuing airworthiness, and;
- b. an appropriate Part 66 licence, or a nationally recognized maintenance personnel qualification appropriate to the aircraft category (when Part-66 refers to national rules) or an aeronautical degree or equivalent, and;
- c. appropriate aeronautical maintenance training, and;
- d. a position within the approved organisation with appropriate responsibilities

- (c) The competent authority shall maintain a record of all airworthiness review staff, which shall include details of any appropriate qualification held together with a summary of relevant continuing airworthiness management experience and training.
- (d) The competent authority shall have access to the applicable data as specified in M.A.305, M.A.306 and M.A.401 in the performance of the airworthiness review.
- (e) The staff that carries out the airworthiness review shall issue the Form 15a after satisfactory completion of the airworthiness review.

### **M.B.903 Findings**

If during aircraft surveys or by other means evidence is found showing non-compliance to a Part-M requirement, the competent authority shall take the following actions:

1. for level 1 findings, the competent authority shall require appropriate corrective action to be taken before further flight and immediate action shall be taken by the competent authority to revoke or suspend the airworthiness review certificate.
2. for level 2 findings, the corrective action required by the competent authority shall be appropriate to the nature of the finding.

*Appendix I***Continuing Airworthiness Arrangement**

1. When an owner contracts an M.A. Subpart G approved continuing airworthiness organisation in accordance with M.A.201 to carry out continuing airworthiness management tasks, upon request by the competent authority a copy of the arrangement shall be sent by the owner to the competent authority of the Member State of registry once it has been signed by both parties.
2. The arrangement shall be developed taking into account the requirements of Part M and shall define the obligations of the signatories in relation to continuing airworthiness of the aircraft.
3. It shall contain as a minimum the:
  - aircraft registration,
  - aircraft type,
  - aircraft serial number,
  - aircraft owner or registered lessee's name or company details including the address,
 M.A. Subpart G approved continuing airworthiness organisation details including the address.

4. It shall state the following:

'The owner entrusts to the approved organisation the management of the continuing airworthiness of the aircraft, the development of a maintenance programme that shall be approved by the airworthiness authorities of the Member State where the aircraft is registered, and the organisation of the maintenance of the aircraft according to said maintenance programme in an approved organisation.

According to the present arrangement, both signatories undertake to follow the respective obligations of this arrangement.

The owner certifies, to the best of their belief that all the information given to the approved organisation concerning the continuing airworthiness of the aircraft is and will be accurate and that the aircraft will not be altered without prior approval of the approved organisation.

In case of any non-conformity with this arrangement, by either of the signatories, it will become null. In such a case, the owner will retain full responsibility for every task linked to the continuing airworthiness of the aircraft and the owner will undertake to inform the competent authorities of the Member State of registry within two full weeks.'

5. When an owner contracts an M.A. Subpart G approved continuing airworthiness organisation in accordance with M.A.201 the obligations of each party shall be shared as follows:

- 5.1. Obligations of the approved organisation:

1. have the aircraft's type in the scope of its approval;
2. respect the conditions to maintain the continuing airworthiness of the aircraft listed below:
  - develop a maintenance programme for the aircraft, including any reliability programme developed **if applicable.**
  - **declare the maintenance tasks (in the maintenance programme) that may be carried out in accordance with M.A.803 (c),**
  - organise the approval of the aircraft's maintenance programme,

- once it has been approved, give a copy of the aircraft's maintenance programme to the owner,
  - organise a bridging inspection with the aircraft's prior maintenance programme,
  - organise for all maintenance to be carried out by an approved maintenance organisation,
  - organise for all applicable airworthiness directives to be applied,
  - organise for all defects discovered during scheduled maintenance, **airworthiness reviews** or reported by the owner to be corrected by an approved maintenance organisation,
  - coordinate scheduled maintenance, the application of airworthiness directives, the replacement of life limited parts, and component inspection requirements,
  - inform the owner each time the aircraft shall be brought to an approved maintenance organisation,
  - manage all technical records,
  - archive all technical records;
3. organise the approval of all and any modification to the aircraft according to Part-21 before it is embodied;
  4. organise the approval of all and any repair to the aircraft according to Part-21 before it is carried out;
  5. inform the **airworthiness competent authority** of the Member State of registry whenever the aircraft is not presented to the approved maintenance organisation by the owner as requested by the approved organisation;
  6. inform the **airworthiness authorities competent authority** of the Member State of registry whenever the present arrangement has not been respected;
  7. carry out the airworthiness review of the aircraft when necessary and **fill** issue the airworthiness review certificate or the recommendation to the **competent authority of the Member State of registry**.

**For all balloons and any other aircraft of 2730 Kg MTOM and below, not used in commercial air transport, the recommendation shall be issued only on the import of an aircraft in accordance with Part-21 and M.A.904.**

8. carry out all occurrence reporting mandated by applicable regulations;
9. inform the **authorities competent authority** of the Member State of registry whenever the present arrangement is denounced by either party.

## 5.2. Obligations of the owner:

1. have a general understanding of the approved maintenance programme;
2. have a general understanding of Part-M;
3. present the aircraft to the approved maintenance organisation agreed with the approved organisation at the due time designated by the approved organisation's request;
4. not modify the aircraft without first consulting the approved organisation;
5. inform the approved organisation of all maintenance exceptionally carried out without the knowledge and control of the approved organisation;

6. report to the approved organisation through the logbook all defects found during operations;
7. inform the ~~authorities~~ competent authority of the Member State of registry whenever the present arrangement is denounced by either party.
8. inform the ~~authorities~~ competent authority of the Member State of registry and the approved organisation whenever the aircraft is sold.
9. carry out all occurrence reporting mandated by applicable regulations.
10. inform on a regular basis the approved organisation about the aircraft flying hours and any other utilization data, as agreed with the approved organisation.
11. enter the certificate of release to service in the logbooks as mentioned in M.A.803(d) when performing Pilot-owner maintenance without exceeding the limits of the maintenance tasks list as declared in the approved maintenance programme (M.A.803 (c)).
12. inform the M.A. Subpart G approved continuing airworthiness management organisation not later than 30 days after completion of the Pilot-owner maintenance task in accordance with M.A 305 (a).

## Appendix II

**EASA Form 1***Use of the EASA Form 1 for maintenance*

*Block 12* .....

*Block 13* It is mandatory to state any information in this block either direct or by reference to supporting documentation that identifies particular data or limitations relating to the items being released that are necessary for the User/installer to make the final airworthiness determination of the item. Information shall be clear, complete, and provided in a form and manner which is adequate for the purpose of making such a determination.

Each statement shall be clearly identified as to which item it relates.

If there is no statement, state 'None'.

Some examples of the information to be quoted are as follows:

- The identity and issue of maintenance documentation used as the approved standard.
- Airworthiness Directives carried out and/or found carried out, as appropriate.
- Repairs carried out and/or found carried out, as appropriate.
- Modifications carried out and/or found carried out, as appropriate.
- Replacement parts installed and/or parts found installed, as appropriate.
- Life limited parts history.
- Deviations from the customer work order.
- ~~M.A. Subpart F approval reference~~ The M.A.613 Certificate of Release to Service statement.
- Identity of other regulation if not Part-145 or Part-M Subpart F.
- Release statements to satisfy a foreign maintenance requirement.
- Release statements to satisfy the conditions of an international maintenance agreement such as, but not limited to, the Canadian Technical Arrangement Maintenance and the USA Bilateral Aviation Safety Agreement — Maintenance Implementation Procedure.

*Blocks 14, 15, 16, 17 & 18:* Must not be used for maintenance tasks by M.A. Subpart F approved maintenance organisations. These blocks are specifically reserved for the release/certification of newly manufactured items in accordance with Part 21 and national aviation regulations in force prior to Part 21 becoming fully effective.

*Block 19* ~~Contains the required release to service statement~~ For all maintenance by M.A. Subpart F approved maintenance organisations the box "other regulation specified in block 13" shall be ticked and the certificate of release to service statement made in block 13. ~~When non Part M maintenance is being released block 13 shall specify the particular national regulation. In any case the appropriate box shall be 'ticked' to validate the release.~~

The following M.A.613 Certificate of Release to Service statement shall be included in block 13:

"Certifies that, unless otherwise specified in this block, the work identified in block 12 and described in this block was accomplished in accordance with Part-M, Subpart F requirements and in respect to that work the item is considered ready for release to service. **THIS IS NOT A RELEASE UNDER PART-145.**"

The certification statement "~~except as~~ unless otherwise specified in ~~block 13~~ 'this block' is intended to address the following ~~situations~~ cases;

- (a) ~~The case~~ Where the maintenance could not be completed.
- (b) ~~The case~~ Where the maintenance deviated from the standard required by Part-M.
- (c) ~~The case~~ Where the maintenance was carried out in accordance with a non Part-M requirement. ~~In this case block 13 shall specify the particular national regulation.~~

Whichever case or combination of cases shall be specified in block 13.

*Block 20 .....*

## Appendix III

**Airworthiness Review certificate****In Form 15b:**

- In the block corresponding to the 1<sup>st</sup> Extension, after "Authorisation No: ....." two new fields are inserted:

Company Name: ..... Approval reference: .....

- In the block corresponding to the 2<sup>nd</sup> Extension, after "Authorisation No: ....." two new fields are inserted:

Company Name: ..... Approval reference: .....

**In Form 15a:**

- the sentence: ~~"is considered to be airworthy at the time of the issue"~~  
is replaced by: "is considered to be airworthy at the time of the review".
- At the end of the Form, insert two blocks for the 1<sup>st</sup> and 2<sup>nd</sup> Extensions, similar to those existing in Form 15b, with the following content:

1<sup>st</sup> Extension: The aircraft is not involved in commercial air transport and has remained in a controlled environment according to M.A.901 for the last year. The aircraft is considered to be airworthy at the time of issue.

Date of issue: ..... Date of expiry: .....

Signed: ..... Authorisation No: .....

Company Name: ..... Approval reference: .....

2<sup>nd</sup> Extension: The aircraft is not involved in commercial air transport and has remained in a controlled environment according to M.A.901 for the last year. The aircraft is considered to be airworthy at the time of issue.

Date of issue: ..... Date of expiry: .....

Signed: ..... Authorisation No: .....

Company Name: ..... Approval reference: .....

*Appendix IV*  
**Approval Ratings**

ORGANISATION APPROVAL CLASS AND RATING SYSTEM

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4. A category A class rating means that the M.A. Subpart F approved maintenance organisation may carry out maintenance on the aircraft and any component (including engines/APUs), in accordance with aircraft maintenance data, only whilst such components are fitted to the aircraft. Nevertheless, such A rated M.A. Subpart F approved maintenance organisation may temporarily remove a component for maintenance, in order to improve access to that component, except when such removal generates the need for additional maintenance using component maintenance data. ~~except that such components can be temporarily removed for maintenance when such removal is expressly permitted by the aircraft maintenance manual to improve access for maintenance~~ This will be subject to a control procedure in the maintenance organisation exposition acceptable to the Member State. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval.

5. A category B class rating means that the M.A. Subpart F approved maintenance organisation may carry out maintenance on the uninstalled engine/APU ('Auxiliary Power Unit') and engine/APU components, in accordance with engine/APU maintenance data, only whilst such components are fitted to the engine/APU. Nevertheless, such B rated M.A. Subpart F approved maintenance organisation may temporarily remove a component for maintenance, in order to improve access to that component, except when such removal generates the need for additional maintenance using component maintenance data. ~~except that such components can be temporarily removed for maintenance when such removal is expressly permitted by the engine/APU manual to improve access for maintenance.~~ The limitation section will specify the scope of such maintenance thereby indicating the extent of approval. A M.A. Subpart F approved maintenance organisation with a category B class rating may also carry out maintenance on an installed engine during 'base' and 'line' maintenance subject to a control procedure in the maintenance organisation exposition. The maintenance organisation exposition scope of work shall reflect such activity where permitted by the Member State.

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## Appendix VI

**Approval Certificate Part-M Section A Subpart G Continuing Airworthiness  
Management Organisation**

MEMBER STATE\*

Member State of the European Union\*\*

**APPROVAL CERTIFICATE****REFERENCE:** XX.MG.XXX (ref. AOC XX.XXX)

Pursuant to Commission Regulation (EC) No 2042/2003 for the time being in force and subject to the condition specified below, the Member State hereby certifies

**[COMPANY NAME AND ADDRESS]**

as a continuing airworthiness management organisation as referred to in Part-M Section A Subpart G approved to manage the continuing airworthiness of the aircraft listed in the attached schedule of approval and to issue recommendations or Airworthiness Review Certificates after an Airworthiness Review as specified in M.A.710 when stipulated:

**CONDITIONS**

1. This approval is limited to that specified in the scope of approval section of the approved continuing airworthiness management exposition as referred to in Part-M Section A Subpart G.
2. This approval requires compliance with the procedures specified in the Part- M approved continuing airworthiness management exposition.
3. This approval is valid whilst the approved continuing airworthiness management organisation remains in compliance with Part-M.
4. Subject to compliance with the above conditions, this approval shall remain valid for an unlimited duration unless the approval has previously been surrendered, superseded, suspended or revoked.

If this form is also used for AOC holders, the AOC number shall be added to the reference, in addition to the standard number, and the condition 4 above shall be replaced by the following extra conditions:

5. This approval does not constitute an authorisation to operate the types of aircraft listed above. The authorisation to operate the aircraft is the Air Operator Certificate (AOC).
6. Where the continuing airworthiness management organisation contracts under its Quality System the service of an/several organisation(s), this approval remains valid subject to such organisation(s) fulfilling applicable contractual obligations.
7. Termination, suspension or revocation of the AOC automatically invalidates the present approval in relation to the aircraft registrations specified in the AOC, unless otherwise explicitly stated by the competent Authority.

8. Subject to compliance with the above conditions, this approval shall remain valid for an unlimited duration unless the approval has previously been surrendered, superseded, suspended or revoked.

Date of original issue: \_\_\_\_\_ Signed: \_\_\_\_\_

Date of this revision: \_\_\_\_\_

Revision No: \_\_\_\_\_ For the Competent Authority \_\_\_\_\_

Page \_ of \_

~~“\*Non EU Member State or EASA, as applicable/\*\*Delete for non EU Member State or EASA”.~~

**Approval Schedule**

Organisation Name: [COMPANY NAME ]

Reference:

Aircraft type/series/group	Airworthiness review authorised	Organisation(s) working under quality system
	Yes	
	No	

This approval Schedule is limited to that specified in the scope of approval section contained in Part-M Section A Subpart G approved Continuing Airworthiness Management Exposition

Continuing Airworthiness Management Exposition Reference:

Date of original issue: \_\_\_\_\_ Signed: \_\_\_\_\_

Date of this revision:

Revision No: \_\_\_\_\_ For the Competent Authority

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**EASA Form 14**

*Appendix VII***Complex Maintenance Tasks**

The following constitutes the complex maintenance tasks referred to in M.A.502(d)2, M.A.801(b)2 and M.A.801(c):

1. The modification, repair or replacement by riveting, bonding, laminating, or welding of any of the following airframe parts:
  - (a) a box beam;
  - (b) a wing stringer or chord member;
  - (c) a spar;
  - (d) a spar flange;
  - (e) a member of a truss-type beam;
  - (f) the web of a beam;
  - (g) a keel or chine member of a flying boat hull or a float;
  - (h) a corrugated sheet compression member in a wing or tail surface;
  - (i) a wing main rib;
  - (j) a wing or tail surface brace strut;
  - (k) an engine mount;
  - (l) a fuselage longeron or frame;
  - (m) a member of a side truss, horizontal truss or bulkhead;
  - (n) a seat support brace or bracket;
  - (o) a seat rail replacement;
  - (p) a landing gear strut or brace strut;
  - (q) an axle;
  - (r) a wheel; and
  - (s) a ski or ski pedestal, excluding the replacement of a low-friction coating.
  
2. The modification or repair of any of the following parts:
  - (a) aircraft skin, or the skin of an aircraft float, if the work requires the use of a support, jig or fixture;
  - (b) aircraft skin that is subject to pressurization loads, if the damage to the skin measures more than 15 cm (6 inches) in any direction;
  - (c) a load-bearing part of a control system, including a control column, pedal, shaft, quadrant, bell crank, torque tube, control horn and forged or cast bracket, but excluding
    - (i) the swaging of a repair splice or cable fitting, and
    - (ii) the replacement of a push-pull tube end fitting that is attached by riveting; and
  - (d) any other structure, not listed in (1), that a manufacturer has identified as primary structure in its maintenance manual, structural repair manual or instructions for continuing airworthiness.

3. The performance of the following maintenance on a piston engine:
  - (a) Dismantling and subsequent reassembling of a piston engine other than:
    - (i) to obtain access to the piston/cylinder assemblies;
    - (ii) to remove the rear accessory cover to inspect and/or replace oil pump assemblies, where such work does not involve the removal and re-fitment of internal gears;
  - (b) Dismantling and subsequent reassembling of reduction gears;
  - (c) Welding and brazing of joints, other than minor weld repairs to exhaust units carried out by a suitably approved or authorised welder but excluding component replacement;
  - (d) The disturbing of individual parts of units which are supplied as bench tested units, except for the replacement or adjustment of items normally replaceable or adjustable in service.
  
4. The balancing of a propeller, except
  - (a) for the certification of static balancing where required by the maintenance manual;
  - (b) dynamic balancing on installed propellers using electronic balancing equipment where permitted by the maintenance manual or other approved airworthiness data;
  
5. Any additional task that requires:
  - (a) special tooling, equipment or facilities, or
  - (b) special coordination procedures because of the extensive duration of the tasks and the involvement of several persons.

*Appendix VIII***Limited Pilot-Owner Maintenance**

The following constitutes the limited pilot maintenance referred to in M.A.803 provided it does not involve complex maintenance tasks and is carried out in accordance with M.A.402:

1. Removal, installation of wheels.
2. Replacing elastic shock absorber cords on landing gear.
3. Servicing landing gear shock struts by adding oil, air, or both.
4. Servicing landing gear wheel bearings, such as cleaning and greasing.
5. Replacing defective safety wiring or cotter keys.
6. Lubrication not requiring disassembly other than removal of non-structural items such as cover plates, cowlings, and fairings.
7. Making simple fabric patches not requiring rib stitching or the removal of structural parts or control surfaces. In the case of balloons, the making of small fabric repairs to envelopes (as defined in, and in accordance with, the balloon manufacturers' instructions) not requiring load tape repair or replacement.
8. Replenishing hydraulic fluid in the hydraulic reservoir.
9. Refinishing decorative coating of fuselage, balloon baskets, wings tail group surfaces (excluding balanced control surfaces), fairings, cowlings, landing gear, cabin, or cockpit interior when removal or disassembly of any primary structure or operating system is not required.
10. Applying preservative or protective material to components where no disassembly of any primary structure or operating system is involved and where such coating is not prohibited or is not contrary to good practices.
11. Repairing upholstery and decorative furnishings of the cabin, cockpit, or balloon basket interior when the repairing does not require disassembly of any primary structure or operating system or interfere with an operating system or affect the primary structure of the aircraft.
12. Making small simple repairs to fairings, non-structural cover plates, cowlings, and small patches and reinforcements not changing the contour so as to interfere with proper air flow.
13. Replacing side windows where that work does not interfere with the structure or any operating system such as controls, electrical equipment, etc.
14. Replacing safety belts.
15. Replacing seats or seat parts with replacement parts approved for the aircraft, not involving disassembly of any primary structure or operating system.
16. Trouble shooting and repairing broken circuits in landing light wiring circuits.
17. Replacing bulbs, reflectors, and lenses of position and landing lights.
18. Replacing wheels and skis where no weight and balance computation is involved.
19. Replacing any cowling not requiring removal of the propeller or disconnection of flight controls.
20. Replacing or cleaning spark plugs and setting of spark plug gap clearance.
21. Replacing any hose connection except hydraulic connections.
22. Replacing prefabricated fuel lines.
23. Cleaning or replacing fuel and oil strainers or filter elements.

24. Replacing and servicing batteries.
25. Cleaning of balloon burner pilot and main nozzles in accordance with the balloon manufacturer's instructions.
26. Replacement or adjustment of non-structural standard fasteners incidental to operations.
27. The interchange of balloon baskets and burners on envelopes when the basket or burner is designated as interchangeable in the balloon type certificate data and the baskets and burners are specifically designed for quick removal and installation.
28. The installations of anti-misfuelling devices to reduce the diameter of fuel tank filler openings provided the specific device has been made a part of the aircraft type certificate data by the aircraft manufacturer, the aircraft manufacturer has provided instructions for installation of the specific device, and installation does not involve the disassembly of the existing tank filler opening.
29. Removing, checking, and replacing magnetic chip detectors.
30. Removing and replacing self-contained, front instrument panel-mounted navigation and communication devices that employ tray-mounted connectors that connect the unit when the unit is installed into the instrument panel, (excluding automatic flight control systems, transponders, and microwave frequency distance measuring equipment (DME)). The approved unit must be designed to be readily and repeatedly removed and replaced, not require specialist test equipment and pertinent instructions must be provided. Prior to the unit's intended use, an operational check must be performed.
31. Updating self-contained, front instrument panel-mounted Air Traffic Control (ATC) navigational software databases (excluding those of automatic flight control systems, transponders, and microwave frequency distance measuring equipment (DME)) provided no disassembly of the unit is required and pertinent instructions are provided. Prior to the unit's intended use, an operational check must be performed.
32. Replacement of wings and tail surfaces and controls, the attachment of which are designed for assembly immediately before each flight and dismantling after each flight.
33. Replacement of main rotor blades that are designed for removal where specialist tools are not required.

In addition to the Part M requirements, the following basic principles are to be complied with before any maintenance task is carried out under the terms of Pilot-owner maintenance:

### **Competence and responsibility**

- 1 The Pilot-owner is always responsible for any maintenance that he performs.
- 2 Before carrying out any Pilot-owner maintenance tasks, the Pilot-owner must satisfy himself that he is competent to do the task. It is the responsibility of Pilot-owners to familiarize themselves with the standard maintenance practices for their aircraft and with the aircraft maintenance programme. If the Pilot-owner is not competent for the task to be carried out, the task cannot be released by the Pilot-owner.
- 3 The Pilot-owner (or his contracted M.A. Subpart G organisation) is responsible for identifying the Pilot-owner tasks according to these basic principles in the maintenance programme and for ensuring that the document is updated in a timely manner.
- 4 The approval of the maintenance programme has to be carried out in accordance with M.A.302.

### **Tasks**

The Pilot-owner may carry out simple visual inspections or operations to check for general condition and obvious damage and normal operation of the airframe, engines, systems and components.

Maintenance tasks shall not be carried out by the Pilot-owner when the task:

- 1 is critically safety related, whose incorrect performance will drastically affect the airworthiness of the aircraft or is a flight safety sensitive maintenance task as specified in M.A.402 (a) and/or;
- 2 requires the removal of major components or major assembly and/or;
- 3 is carried out in compliance with an Airworthiness Directive or an Airworthiness Limitation Item, unless specifically allowed in the AD or the ALI and/or;
- 4 requires the use of special tools, calibrated tools (except torque wrench and crimping tool) and/or;
- 5 requires the use of test equipments or special testing (e.g. NDT, system tests or operational checks for avionic equipment) and/or
- 6 is composed of any unscheduled special inspections (e.g. heavy landing check) and/or;
- 7 is effecting systems essential for the IFR operations and or;
- 8 is listed in Appendix VII or is a component maintenance task in accordance with M.A.502.

The criteria listed above can not be overridden by less restrictive instructions issued in accordance with "M.A.302(d) Maintenance Programme".

Any task described in the aircraft flight manual as preparing the aircraft for flight (Example: assembling the glider wings or pre-flight), is considered to be a pilot task and is not considered a Pilot-owner maintenance task and therefore does not require a Certificate of Release to Service.

### **Performance of the maintenance Pilot-owner tasks and records**

The maintenance data as specified in M.A.401 must be always available during the conduct of Pilot-owner maintenance and must be complied with. Details of the data referred to in the conduct of Pilot-owner maintenance must be included in the Certificate of Release to Service in accordance with M.A.803(d).

The Pilot-owner must inform the M.A. Subpart G Continuing Airworthiness Management Organisation (if applicable) not later than 30 days after completion of the Pilot-owner maintenance task in accordance with M.A 305 (a).



## **ANNEX II**

### **(Part-145)**

#### *Appendix II*

#### **Organisation approval class and rating system**

...

4. A category A class rating means that the Part-145 approved maintenance organisation may carry out maintenance on the aircraft and any component (including engines/APUs), in accordance with aircraft maintenance data, only whilst such components are fitted to the aircraft. Nevertheless, such A rated Part-145 approved maintenance organisation may temporarily remove a component for maintenance, in order to improve access to that component, except when such removal generates the need for additional maintenance using component maintenance data. ~~except that such components can be temporarily removed for maintenance when such removal is expressly permitted by the aircraft maintenance manual to improve access for maintenance~~ This will be subject to a control procedure in the maintenance organisation exposition acceptable to the Member State. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval.
  
5. A category B class rating means that the Part-145 approved maintenance organisation may carry out maintenance on the uninstalled engine/APU ('Auxiliary Power Unit') and engine/APU components, in accordance with engine/APU maintenance data, only whilst such components are fitted to the engine/APU. Nevertheless, such B rated Part-145 approved maintenance organisation may temporarily remove a component for maintenance, in order to improve access to that component, except when such removal generates the need for additional maintenance using component maintenance data. ~~except that such components can be temporarily removed for maintenance when such removal is expressly permitted by the engine/APU manual to improve access for maintenance.~~ The limitation section will specify the scope of such maintenance thereby indicating the extent of approval. A Part-145 approved maintenance organisation with a category B class rating may also carry out maintenance on an installed engine during 'base' and 'line' maintenance subject to a control procedure in the maintenance organisation exposition. The maintenance organisation exposition scope of work shall reflect such activity where permitted by the Member State.

...

## **AMC to Part M**

### **AMC M.1**

A competent authority may be a ministry, an aviation national authority, or any aviation body designated by the Member State and located within that Member State. A Member State may designate more than one competent authority to cover different areas of responsibility, as long as the designation decision contains a list of the competencies of each authority and there is only one competent authority responsible for each given area of responsibility.

### **AMC M.A.201(e) Responsibilities**

The limited contract for the development and approval of the maintenance programme should cover the responsibilities related to M.A.302(q) and (h).

### **AMC M.A.302(b) Maintenance programme**

A maintenance programme may indicate that it applies to several aircraft registrations as long as the maintenance programme clearly identifies the effectivity of the tasks and procedures that are not applicable to all of the listed registrations.

### **AMC M.A.302(e)(d) Maintenance programme**

...

6. Some approved aircraft maintenance programmes, not developed from the MRB process, utilise reliability programmes. Such reliability programmes should be considered as a part of the approved maintenance programme.
7. Alternate and/or additional instructions to those defined in paragraphs M.A.302(d)1 and 2, proposed by the owner or the operator, may include but are not limited to the following:
  - o Escalation of the interval for certain tasks based on reliability data or other supporting information. Appendix I recommends that the maintenance programme contains the corresponding escalation procedures.
  - o More restrictive intervals than those proposed by the TC holder as a result of the reliability data or because of a more stringent operational environment.
  - o Additional tasks at the discretion of the operator.

### **AMC M.A.302(c) Maintenance programme**

The indirect approval procedure may be used regardless of whether the aircraft is managed by an M.A. Subpart G organisation or not, as allowed by M.A.201(e).

### **AMC M.A.302(d)(f) Maintenance programme – reliability programmes**

....

### **AMC M.A.401(c) Maintenance data**

3. ....
4. In the case of other than large aircraft, the workcard/worksheet system may take the form of, but not limited to, the following:
  - A format where the mechanic writes the defect and the maintenance action taken together with information of the maintenance data used.

- An aircraft log book that contains the reports of defects and the actions taken by authorised personnel together with information of the maintenance data used.
- For maintenance checks, the checklist issued by the manufacturer (i.e., 100H checklist, Revision 5, Items 1 through 95).

5. 4. ....

#### **AMC M.A.402(a) Performance of maintenance**

1. ....

2. In the case of limited Pilot-owner maintenance as specified in M.A.803, any person maintaining an aircraft which they own or jointly own, provided they hold a valid pilot licence with the appropriate type or class rating, may perform the limited Pilot-owner maintenance tasks in accordance with Part-M Appendix VIII. ~~should have had appropriate training or relevant previous experience as accepted by the competent authority and be capable of performing the task required~~

3. ....

#### **AMC M.A.501 (a) – Installation**

...

5. For the purpose of Part-M, a document equivalent to an EASA Form 1 may be:

- (a) a release document issued by an organisation under the terms of a bilateral agreement signed by the European Community;
- (b) a release document issued by an organisation approved under the terms of a JAA maintenance bilateral agreement until superseded by the corresponding agreement signed by the European Community;
- (c) a JAA Form One issued prior to 28 ~~September~~ November 2004 by a JAR 145 organisation approved by a JAA Full Member State;
- (d) in the case of new aircraft components that were released from manufacturing prior to the Part-21 compliance date the component should be accompanied by a JAA Form One issued by a JAR 21 organisation approved by a JAA Full Member Authority and within the JAA mutual recognition system;
- ~~(f)~~(e) a JAA Form One issued prior to 28 September 2005 by a production organisation approved by a competent authority in accordance with its national regulations;
- ~~(g)~~(f) a JAA Form One issued prior to 28 September 2008 by a maintenance organisation approved by a competent authority in accordance with its national regulations;
- ~~(h)~~(g) a release document acceptable to a competent authority according to the provisions of a bilateral agreement between the competent authority and a third country until superseded by the corresponding agreement signed by the European Community. This provision is valid provided the above agreements between the competent authority and a third country are notified to the Commission and to the other competent authorities in accordance with Article 9 of Regulation (EC) No 1592/2002.
- (h) for aircraft not involved in commercial air transport other than large aircraft, a release document issued prior to 28 September 2009 by a maintenance organisation approved under the relevant Member State regulation.
- (i) paragraphs (f) and (g) do not apply to the Part-145 maintenance environment.

...

#### **AMC M.A.502 Component maintenance**

Component removal and installation from an aircraft is considered to be aircraft maintenance and not component maintenance. As a consequence, M.A.502 requirements do not apply to this case.

The maintenance described in M.A.502(b) does not require holding a maintenance organisation approval with component ratings.

### **AMC M.A.504(b) Control of unserviceable components**

1. M.A.801(b)(2) and M.A.801(c) certifying staff or the Section A Subpart F / Part-145 approved maintenance organisation performing maintenance should ensure proper identification of any unserviceable components.
2. ....
3. M.A.801(b)(2) and M.A.801(c) certifying staff performing aircraft maintenance should send, with the agreement of the aircraft owner/lessee, any unserviceable component to a maintenance organisation approved under Section A Subpart F or Part-145 for controlled storage, or transfer the custody of the component to the owner itself under the conditions specified in M.A.504(b).

"A secure location under the control of an approved maintenance organisation" means a secure location for which security is the responsibility of the approved maintenance organisation. This may include facilities established by the approved maintenance organisation at locations different from the main maintenance facilities. These locations should be identified in the relevant procedures of the approved maintenance organisation.

### **AMC M.A.602 Application**

An application should be made on an EASA Form 2 (Appendix IX) or equivalent acceptable to the competent authority.

The EASA Form 2 is valid for the application for both M.A. Subpart F and M.A. Subpart G organisations. Organisations applying for both approvals may do it using a single EASA Form 2.

### **AMC M.A.605 (a) Facilities**

1. Where a hangar is not owned by the M.A. Subpart F organisation, it may be necessary to establish proof of tenancy. In addition sufficiency of hangar space to carry out planned maintenance should be demonstrated by the preparation of a projected aircraft hangar visit plan relative to the aircraft maintenance programme. The aircraft hangar visit plan should be updated on a regular basis.

For balloons and airships the hangar does not need to accommodate an inflated envelope.

...

### **AMC M.A.607 Certifying staff**

...

4. Relevant maintenance experience should be understood to mean that the person has worked in an aircraft or component maintenance environment and has either exercised the privileges of the certification authorisation and/or has actually carried out maintenance on at least some of the aircraft type systems specified in the particular certification authorisation.

### **AMC M.A.607(e)(b) Certifying staff**

1. The following minimum information as applicable should be kept on record in respect of each certifying person:

...

(i) scope of the authorisation and personal authorisation reference

...

### **AMC M.A.610 Maintenance work orders**

"A written work order" may take the form of, but not limited to, the following:

- A formal document or form specifying the work to be carried out. This form may be provided by the continuing airworthiness management organisation managing the aircraft, or by the maintenance organisation undertaking the work, or by the owner/operator himself.
- An entry in the aircraft log book specifying the defect that needs to be corrected.

### **AMC M.A.613(a) Component certificate of release to service**

...

2.8. Used aircraft components maintained by organisations not approved in accordance with M.A. Subpart F or Part-145.

For used components maintained by a maintenance organisation unapproved under M.A. Subpart F or Part-145, due care should be exercised before acceptance of such components. In such cases an appropriately rated maintenance organisation approved under M.A. Subpart F or Part-145 should establish satisfactory conditions by:

- (a) dismantling the component for sufficient inspection in accordance with the appropriate maintenance data,
- (b) replacing of all service life limit components when no satisfactory evidence of life used is available and/or the components are in an unsatisfactory condition,
- (c) reassembling and testing as necessary the component,
- (d) completing all certification requirements as specified in M.A.613

In the case of used components maintained by an FAA Part-145 repair station (USA) or by TCCA CAR573 approved maintenance organisations (Canada) that does not hold an EASA Part-145 or M.A. Subpart F approval, the conditions (a) through (d) described above may be replaced by the following conditions:

- (a) availability of an 8130-3 (FAA) or TCCA 24-0078 (TCCA) certificate of release to service.
- (b) verification of compliance with all applicable airworthiness directives, and
- (c) verification that the component does not contain repairs or modifications that have not been approved in accordance with Part-21.
- (d) inspection for satisfactory condition including in particular damage, corrosion or leakage.
- (e) issuance of a Form 1 in compliance with paragraphs 2.2, 2.3 and 2.4.

These alleviated requirements are based on the fact that credit can be taken for their technical capabilities and their competent authority oversight, as attested by the following documents:

- BASA / MIP-G Maintenance Implementation Procedures Guidance (USA)
- AAM-G Administrative Arrangement on Maintenance Guidance (Canada)

...

### **AMC M.A.615(3) Privileges of the organisation**

The intent is to permit the acceptance of specialised maintenance services, such as, but not limited to, non destructive testing, surface treatment, heat-treatment, welding, fabrication of

specified parts for minor repairs and modifications, etc., without the need of Subpart F approval for those tasks.

The requirement that the organisation performing the specialised services must be "appropriately qualified" means that it should meet an officially recognised standard or, otherwise, it should be acceptable to the competent authority (through the approval of the Maintenance Organisation Manual).

"Under the control of the Subpart F organisation" means that the Subpart F organisation should investigate the capability of the subcontracted organisation (including qualifications, facilities, equipment and materials) and ensure that such organisation:

- Receives appropriate maintenance instructions and maintenance data for the task to be performed.
- Properly records the maintenance performed in the Subpart F airworthiness records.
- Notifies the Subpart F organisation for any deviation or non-conformity, which have arisen during such maintenance.

The certificate of release to service may be issued either at the sub-contractor or at the organisation facility by authorised certifying staff, and always under the M.A. Subpart F organisation reference. Such staff would normally come from the M.A. Subpart F organisation but may otherwise be a person from the sub-contractor who meets the M.A. Subpart F organisation certifying staff standard which itself is approved by the competent authority via the Maintenance Organisation Manual.

Subcontracted specialised services organisations should be listed in the Maintenance Organisation Manual of the Subpart F organisation together with their qualifications, and the associated control procedures.

### **AMC M.A.702 Application**

An application should be made on an EASA Form 2 (Appendix IX) or equivalent acceptable to the competent authority.

The EASA Form 2 is valid for the application for both M.A. Subpart F and M.A. Subpart G organisations. Organisations applying for both approvals may do it using a single EASA Form 2.

### **AMC M.A.704 Continuing airworthiness management exposition**

1. The purpose of the continuing airworthiness management exposition is to set forth the procedures, means and methods of the M.A. Subpart G organisation. Compliance with its contents will assure compliance with Part-M requirements.

2. A continuing airworthiness management exposition should comprise:

Part 0 General organisation

Part 1 Continuing airworthiness procedures

Part 2 Quality system or organisational review (as applicable)

Part 3 Contracted maintenance (for operators) – management of maintenance (liaison with maintenance organisations in the case of non commercial air transport)

Part 4 Airworthiness review procedures (if applicable)

3. Where a M.A. Subpart G organisation is also approved to another Part, the exposition or manual required by the other Part may form the basis of the continuing airworthiness management exposition in a combined document.

Follows the Example for a combined Part-145 and M.A. Subpart G organisation:

*Part-145 Exposition (see equivalent paragraphs in AMC 145.A.70(a))*

Part 1 Management

Part 2 Maintenance procedures

Part L2 Additional line maintenance procedures

Part 3 Quality system and/or organisational review (as applicable)

Part 4 Contracts with owners/operators

Part 5 Appendices (sample of documents)

Part 7 FAA supplement (if applicable)

Part 8 TCCA supplement (if applicable)

Part 3 should also cover the functions specified by M.A.712 quality system.

Part 4 should also cover contracted maintenance (for operators) – Management of maintenance (liaison with maintenance organisations in the case of non commercial air transport)

Additional parts should be introduced covering the following **(see equivalent paragraphs in Appendix V to AMC M.A.704, which may have a different numbering system)**:

Part 0 General organisation

Part 6 Continuing airworthiness management procedures

Part 9 Airworthiness review procedures (if applicable)

Example for a combined M.A. Subpart F and M.A. Subpart G organisation:

*M.A. Subpart F Maintenance Organisation Manual (see equivalent paragraphs in Appendix IV to AMC M.A.604, which have a different numbering system)*

Part 1 General

Part 2 Description

Part 3 General Procedures

Part 4 Working Procedures. This Part contains, among other things, procedures for Organisational Reviews.

Part 5 Appendixes

Part 4 should also cover the functions specified by M.A.712 quality system (or organisation review, as applicable).

Additional parts should be introduced covering the following **(see equivalent paragraphs in Appendix V to AMC M.A.704, which may have a different numbering system)**:

Part 0 General organisation

Part 6 Continuing airworthiness management procedures

**Part 7 Airworthiness review procedures (if applicable)**

4. ...

**AMC M.A.704(a)3 Continuing airworthiness management exposition**

Airworthiness review staff are automatically recognised as a person with authority to extend an airworthiness review certificate in accordance with M.A.711(a)4 and M.A.901(f).

**AMC M.A.706 Personnel requirements**

4.4. ...

4.5. a relevant engineering degree or an aircraft maintenance technician qualification with additional education acceptable to the approving competent authority. "Relevant engineering degree" means an engineering degree from aeronautical, mechanical, electrical, electronic, avionic or other studies relevant to the maintenance and continuing airworthiness of aircraft / aircraft components.

The above recommendation may be replaced by 5 years of experience additional to those already recommended by paragraph 4.4 above. These 5 years should cover an appropriate combination of experience in tasks related to aircraft maintenance and/or continuing airworthiness management (engineering) and/or surveillance of such tasks.

4.6. ....

4.7. knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course. These courses should be at least at a level equivalent to Part-66 Level 1 General Familiarization.

"Relevant sample" means that these courses should cover typical systems embodied in those aircraft being within the scope of approval.

For all balloons and any other aircraft of 2730 Kg MTOM and below, not used in commercial air transport, the formalised training courses may be replaced by demonstration of knowledge.

This knowledge may be demonstrated by documented evidence or by an assessment performed by the competent authority. This assessment should be recorded.

4.8. ....

4.9. knowledge of applicable regulations

**AMC M.A.706(c) Personnel requirements**

Airworthiness review staff are automatically recognised as a person with authority to extend an airworthiness review certificate in accordance with M.A.711(a)4 and M.A.901(f).

**AMC M.A.707 (a) Airworthiness review staff**

1. Airworthiness review staff are only required if the M.A. Subpart G organisation wants to be granted M.A.711 (b) airworthiness review privileges.

2. "experience in continuing airworthiness" means any appropriate combination of experience in tasks related to aircraft maintenance and/or continuing airworthiness management (engineering) and/or surveillance of such tasks.



2. 3. A person qualified to the AMC M.A.706 subparagraph 4.5 should be considered as holding the equivalent to an aeronautical degree.

3. 4. An appropriate Part-66 licence is a category B or C licence in the sub-category of the aircraft reviewed. It is not necessary to satisfy the experience requirements of Part-66 at the time of the review.

4. 5. To hold a position with appropriate responsibilities means the airworthiness review staff should have a position in the organisation independent from the airworthiness management process or with overall authority on the airworthiness management process of complete aircraft.

Independence from the airworthiness management process may be achieved, among other ways, by:

- Being authorised to perform airworthiness reviews only on aircraft for which the person has not participated in their management. For example, performing airworthiness reviews on a specific model line, while being involved in the airworthiness management of a different model line.
- M.A. Subpart G organisations with Part 145 / M.A. Subpart F approval, may nominate maintenance personnel from their Part 145 / M.A. Subpart F organisation as airworthiness review staff, as long as they are not involved in the airworthiness management of the aircraft. These personnel should not have been involved in the release to service of that particular aircraft to avoid possible conflict of interests.
- Nominating as airworthiness review staff personnel from the Quality Department of the continuing airworthiness management organisation.

Overall authority on the airworthiness management process of complete aircraft may be achieved, among other ways, by:

- Nominating as airworthiness review staff the Accountable Manager or the Maintenance Postholder.
- Having authorisation to perform airworthiness reviews only on those particular aircraft for which the person is responsible for the complete continuing airworthiness management process.
- In the case of one-man organisation, this person has always overall authority. This means that this person can be nominated as airworthiness review staff.

#### **AMC M.A.707 (a)(1) Airworthiness review staff**

For all aircraft used in commercial air transport and any other aircraft, other than balloons, above 2730 kg MTOM, formal aeronautical maintenance training means training (internal or external) supported by evidence on the following subjects:

- Relevant parts of initial and continuing airworthiness regulations.
- Relevant parts of operational requirements and procedures, if applicable.
- The organisation's continuing airworthiness management exposition.
- Knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course. These courses should be at least at a level equivalent to Part-66 Level 1 General Familiarization.

"Relevant sample" means that these courses should cover typical systems embodied in those aircraft being within the scope of approval

- Maintenance methods.

#### **AMC M.A.707 (a)(2) Airworthiness review staff**

For all balloons and any other aircraft of 2730 Kg MTOM and below, not used in commercial air transport:

1. "experience in continuing airworthiness" can be full time or part-time, either as professional or on a voluntary basis.
2. Appropriate aeronautical maintenance training means demonstrated knowledge of the following subjects:
  - Relevant parts of initial and continuing airworthiness regulations.
  - Relevant parts of operational requirements and procedures, if applicable.
  - The organisation's continuing airworthiness management exposition.
  - Knowledge of a relevant sample of the type(s) of aircraft gained through training and/or work experience. Such knowledge should be at least at a level equivalent to Part-66 Level 1 General Familiarization.

"Relevant sample" means that these courses should cover typical systems embodied in those aircraft being within the scope of approval

- Maintenance methods.

This knowledge may be demonstrated by documented evidence or by an assessment performed by the competent authority or by other airworthiness review staff already authorised within the organisation in accordance with approved procedures. This assessment should be recorded.

#### **AMC M.A.707 (b) Airworthiness review staff**

An airworthiness review "under supervision" means under the supervision of the competent authority. If the organisation already has properly authorised airworthiness review staff, the competent authority may accept that the supervision be performed by this existing airworthiness review staff in accordance with an approved procedure. In such case, evidence of the airworthiness review performed under supervision should be provided to the competent authority together with the EASA Form 4.

#### **AMC M.A.707 (c) Airworthiness review staff**

In order to keep the validity of the airworthiness review staff authorisation, the airworthiness review staff should have either:

- been involved in continuing airworthiness management activities for at least six months in every two year period, or,
- conducted at least one airworthiness review in the last twelve month period.

In order to restore the validity of the authorisation, the airworthiness review staff should conduct at a satisfactory level an airworthiness review under the supervision of the competent authority or, if accepted by the competent authority, under the supervision of another currently valid authorised airworthiness review staff of the concerned continuing airworthiness management organisation in accordance with an approved procedure.

#### **AMC M.A.707(e) Airworthiness review staff**

The minimum content of the airworthiness review staff record should be:

- Name,
- Date of Birth,
- Basic Education,
- Experience,

- Aeronautical Degree and/or part-66-qualification and/or nationally-recognized maintenance personnel qualification,
- Initial Training received,
- Type of Training received,
- Continuation Training received,
- Experience in continuing airworthiness and within the organisation,
- Responsibilities of current role in the organisation.
- Copy of the authorisation

### **AMC M.A.709 Documentation**

When using maintenance data provided by the customer, the continuing airworthiness management organisation is responsible for ensuring that this data is current. As a consequence, it should establish appropriate procedures or provisions in the contract with the customer.

The sentence "...the need to comply with M.A.714", means, in particular, the need to keep a copy of the customer data which was used to perform continuing airworthiness activities during the contract period

Examples of "generic" maintenance programmes could be Cessna 100 Series (covering Cessna 150, 172, 177, etc)....

"Baseline" and "generic" maintenance programmes are not applicable to a particular aircraft registration mark, but to an aircraft type or group of types, and should be available to the competent authority prior to the initial approval and prior to the extension of the scope of an existing organisation approval. The intent is that the competent authority is aware of the scope and complexity of tasks that will be managed before granting an organisation approval or change of approval.

After this initial approval, when an owner/operator is contracted, the baseline or generic maintenance programme, as applicable, may be amended in order to incorporate the additional maintenance tasks and to indicate those that are not applicable to a particular aircraft registration mark. This may be performed by means of an Annex to the baseline/generic maintenance programme for each aircraft registration, specifying which tasks are added and which are not applicable. This will result in a maintenance programme specific for each customer.

However, this does not mean that this adaptation must be performed for each contracted aircraft registration. The reason is that the customer may already have an approved maintenance programme, which can be used by the continuing airworthiness management organisation to manage such aircraft.

Continuing airworthiness management organisations may seek authorisation for indirect approval in order to perform the amendments to the maintenance programme mentioned above. There is no need to change the CAME each time a maintenance programme is amended, since only the reference to the baseline/generic maintenance programme is included in the CAME in accordance with M.A.703.

### **AMC M.A.710(d) Airworthiness review**

"Without loss of continuity of the airworthiness review pattern" means that the new expiration date is set up one year after the previous expiration date.

### **AMC M.A.711(b) Privileges of the organisation**

~~It is not necessary for an organisation to be approved to carry out airworthiness reviews.~~

An organisation may be approved for the privileges of M.A.711(a) only, without the privilege to carry out airworthiness reviews.

This can be contracted to another appropriately approved organisation. ~~In this case, the airworthiness review should be carried out every year and the ARC issued by the competent authority following a recommendation.~~

### **AMC M.A.712 (f) Quality system**

A small organisation is considered to be an organisation with up to 5 full time staff (including all M.A.706 personnel) or equivalent proportional number when using part-time staff. ~~managing less than 10 aircraft. This number should be decreased by 50% in the case of large aircraft.~~ The complexity of the organisation, combination of aircraft and aircraft types, the utilisation of the aircraft and the number of approved locations of the organisation should also be considered before replacing the quality system by an organisational review.

Appendix XII should be used to manage the organisational reviews.

The following activities should not be considered as sub-contracting and, as a consequence, they may be performed without a Quality System, although they need to be described in the continuing airworthiness management exposition and be approved by the competent authority:

- Subscription to a technical publisher that provides maintenance data (Aircraft Maintenance Manuals, Illustrated Parts Catalogues, Service Bulletins ....), which may be applicable to a wide range of aircraft. These data may include maintenance schedules recommended by different manufacturers that can be afterwards used by the continuing airworthiness management organisation in order to produce customised maintenance programmes.
- Contracting the use of a software tool for the management of continuing airworthiness data and records, under the following conditions (in addition to M.A.714(d) and (e)):
  - If the tool is used by several organisations, each organisation should have access to its own data only.
  - Introduction of data can only be performed by personnel of the continuing airworthiness management organisation.
  - The data can be retrieved at any time.

### **AMC M.A.714 Record-keeping**

1. The M.A. Subpart G organisation should ensure that it always receives a complete CRS from the approved maintenance organisation, M.A.801(b)(2) certifying staff and/or from the Pilot-owner such that the required records can be retained. The system to keep the continuing airworthiness records should be described in the organisation continuing airworthiness management exposition.

2. ....

### **AMC M.A.801~~(d)~~(g) Aircraft certificate of release to service**

1. The aircraft certificate of release to service should contain the following statement:

.....

### **AMC M.A.801~~(e)~~(h) Aircraft certificate of release to service**

1. Being unable to establish full compliance ....

**AMC M.A.801(f)(i) Aircraft certificate of release to service**

"Hazard seriously the flight safety" means ....

**AMC M.A.801(e) Aircraft certificate of release to service**

1. "3 years maintenance experience" means 3 years working in an aircraft maintenance environment on at least some of the aircraft type systems corresponding to the aircraft endorsed on the aircraft maintenance license or on the certifying staff authorisation that the person holds.
2. "Holding the proper qualifications" means holding either:
  - a. a valid ICAO Annex 1 compliant maintenance license for the aircraft type requiring certification, or;
  - b. a certifying staff authorisation valid for the work requiring certification, issued by an ICAO Annex 6 approved maintenance organisation.
3. A release in accordance with this paragraph does not affect the controlled environment of the aircraft as long as the M.A.801(e)<sup>2</sup> recheck and release has been carried out by an approved maintenance organisation.

**AMC M.A.803 Pilot-owner authorisation**

- ~~1. The pilot owner should hold a valid pilot license issued or validated by a member state for the aircraft type being maintained.~~
- ~~2. 1. Privately operated means the aircraft is not operated pursuant to M.A.201 (h) and (i).~~
- ~~3. 2. A pilot-owner should may only issue a certificate of release to service for maintenance he/she has performed. by the pilot owner. and after demonstrating the competency to carry out such maintenance tasks.~~
3. In the case of a jointly owned aircraft, the maintenance program should list:
  - The names of all Pilot-owners competent and designated to perform Pilot-owner maintenance in accordance with the basic principles described in Appendix VIII of Part M. An alternative would be the maintenance program to contain a procedure to ensure how such a list of competent Pilot-owners should be managed separately and kept current.
  - The limited maintenance tasks they may perform.
4. An equivalent valid Pilot-owner license may be any document attesting a pilot qualification recognised by the Member State. It does not have to be necessarily issued by the competent authority but it must in any case be issued in accordance with the particular Member State's system, awaiting the European pilot licensing system. In such a case, the equivalent certificate or qualification number should be used instead of the pilot's licence number for the purpose of the M.A.801(b)<sup>3</sup> (certificate of release to service).

**AMC M.A.901(b) Aircraft airworthiness review**

1. For aircraft not used in commercial air transport, if the continuing airworthiness of the aircraft is not managed according to a Part-M appendix I arrangement between the owner and the M.A. Subpart G organisation, the aircraft should be considered to be outside a controlled environment.
2. The fact that limited pilot-owner maintenance as defined in M.A.803 (b) is not carried out and released by an approved maintenance organisation does not change the status of an aircraft in a controlled environment providing the M.A. Subpart G organisation under contract has been informed of any such maintenance carried out.

**AMC M.A.901(c)2 & (e)2 & (f) Aircraft airworthiness review**

When the aircraft has remained within a controlled environment, the extension of the validity of the airworthiness review certificate does not require an airworthiness review but only a verification of the continuous compliance with ~~M.A.902 (b)~~ M.A.901 (b).

**AMC M.A.901 (d) & (g) Aircraft airworthiness review**

The recommendation sent by a continuing airworthiness management organisation (CAMO) or by M.A.901(g) certifying staff to the competent authority of the State of registry should be, at least, in English when the Member State of registry is different from the CAMO's Member State. Otherwise it can be completed in the official language(s) of the CAMO's Member State.

The recommendation sent to the competent authority should contain at least the items described below.

....

**AMC M.A.901 ~~(e)~~(j) Aircraft airworthiness review**

Suitable accommodation should include:

....

**AMC M.A.904(b) Airworthiness review of aircraft imported into the EU**

The recommendation sent to the competent authority should contain at least the items described below.

(a) All the information set forth by AMC ~~M.A.902(d)~~ M.A.901(d) & (g)

...

**AMC M.B.102(c) Competent authority – Qualification and training**

1.5. ....

1.6. knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course. These courses should be at least at a level equivalent to Part-66 Level 1 General Familiarization.

"Relevant sample" means that these courses should cover typical systems embodied in those aircraft being within the scope of approval.

1.7. ....

**AMC M.B.301(b) Maintenance programme**

...

3. A competent authority may elect to publish a proposed maintenance schedule for a piston engined aircraft type or a group of piston engined aircraft types below 2730Kgs maximum take off mass (MTOM) or for a sailplane or balloon type or for a group of sailplanes or balloons types. When owners/operators of piston engined aircraft below 2730Kgs MTOM of the aircraft mentioned above elect to use a competent authority proposed maintenance schedule, all the out of phase manufacturer recommendations should be incorporated into the final maintenance programme in order for it to be approved.

...

**AMC M.B.303**

The competent authority may create an adapted airworthiness survey programme for the aircraft to which it delivers the airworthiness review certificate.

**AMC M.B.604(b) Continuing oversight**

...

5. When performing the oversight of organisations that hold both M.A. Subpart F and M.A. Subpart G approvals, the competent authority should arrange the audits to cover both approvals avoiding duplicated visit of a particular area.

**AMC M.B.606 Changes**

1. Changes in nominated persons.

The competent authority should have adequate control over any changes to personnel specified in M.A.606 (a) and (b). Such changes will require an amendment to the manual.

2. It is recommended that a simple manual status sheet is maintained which contains information on when an amendment was received by the competent authority and when it was approved.
3. The competent authority should define the class of amendments to the manual which may be incorporated through indirect approval. In this case a procedure should be stated in the amendment section of the maintenance organisation manual.

Changes notified in accordance with M.A.617 should not be subject to the indirect approval procedure. In this case, the applicable part(s) of the EASA Form 6F should be used for the change.

4. The approved maintenance organisation should submit each manual amendment to the competent authority whether it be an amendment for competent authority approval or an indirectly approved amendment. Where the amendment requires competent authority approval, the competent authority when satisfied, should indicate its approval in writing.

Where the amendment has been submitted under the indirect approval procedure the competent authority should acknowledge receipt in writing.

- ~~5. The following changes to the M.A. Subpart F approval should not be subject to the indirect approval procedure:~~

- ~~• Name change~~
- ~~• Change of accountable manager~~
- ~~• Address change~~
- ~~• Approval scope and rating~~
- ~~• New facility~~
- ~~• Any other change to the approval designated by the competent authority~~

**AMC M.B.703 Issue of approval**

The table shown for the Approval Schedule in EASA Form 14 includes a field designated as "Aircraft type/series/group".

The intention is to give maximum flexibility to the competent authority to customise the approval to a particular organisation.

Possible alternatives to be included in this field are the following:

- A specific type designation that is part of a type certificate, such as Airbus 340-211 or Cessna 172R.

- A type rating (or series) as listed in Part-66 Appendix I to AMC, which may be further subdivided, such as Boeing 737-600/700/800, Boeing 737-600, Cessna 172 Series.
- An aircraft group such as Cessna single piston engined aircraft.

Reference to the engine type installed in the aircraft may or may not be included, as necessary.

In all cases, the competent authority should be satisfied that the organisation has the capability to manage the requested types/groups/series.

### **AMC M.B.704(b) Continuing oversight**

...

4. Credit may be claimed by the competent authority Surveyor(s) for specific item audits completed during the preceding ~~11~~ 23 month period subject to four conditions:

...

d the specific item audit being granted a back credit should be audited not later than ~~12~~ 24 months after the last audit of the item.

5. When an operator sub-contracts continuing airworthiness management tasks all sub-contracted organisations should also be audited by the competent authority of operator at periods not exceeding ~~12~~ 24 months (credits per paragraph 4 above are permitted) to ensure they fully comply with M.A. Subpart G. For these audits, the competent authority auditing surveyor should always ensure that he/she is accompanied throughout the audit by a senior technical member of the operator. All findings should be sent to and corrected by the operator.

6. When performing the oversight of organisations that hold both M.A. Subpart F and M.A. Subpart G approvals, the competent authority should arrange the audits to cover both approvals avoiding duplicated visit of a particular area.

### **AMC M.B.706 Changes**

1. Changes in nominated persons.

The competent authority should have adequate control over any changes to the personnel specified in M.A.706 (a), (b), (c) and (d). Such changes will require an amendment to the exposition.

2. It is recommended that a simple exposition status sheet is maintained which contains information on when an amendment was received by the competent authority and when it was approved.

3. The competent authority should define the class of amendments to the exposition which may be incorporated through indirect approval. In this case a procedure should be stated in the amendment section of the approved continuing airworthiness management organisation exposition.

Changes notified in accordance with M.A.713 should not be subject to the indirect approval procedure. In this case, the applicable part(s) of the EASA Form 13 should be used for the change.

4. The approved continuing airworthiness management organisation should submit each exposition amendment to the competent authority whether it be an amendment for competent authority approval or an indirectly approved amendment. Where the amendment requires competent authority approval, the competent authority when satisfied, should indicate its approval in writing.

Where the amendment has been submitted under the indirect approval procedure the competent authority should acknowledge receipt in writing.

~~5. The following changes to the M.A. Subpart G approval should not be subject to the indirect approval procedure:~~



- ~~Name change~~
- ~~Change of accountable manager~~
- ~~Address change~~
- ~~Approval scope and rating~~
- ~~New facility~~
- ~~Any other change to the approval designated by the competent authority~~

### **AMC M.B.901 Assessment of recommendations**

...

3. Depending on the content of the recommendation, the history of the particular aircraft, and the knowledge of the M.A.Subpart G organisation or M.A.901(g) certifying staff making the recommendation in terms of experience, number and correction of findings and previous recommendations the extent of the investigation will vary. Therefore, whenever possible the person carrying out the investigation should be involved in the oversight of the M.A.Subpart G organisation making the recommendation.
4. In some cases, the inspector may decide that it is necessary to organise:
  - a physical survey of the aircraft, or;
  - a full or partial airworthiness review.

In this case, the inspector should inform the M.A.Subpart G organisation or M.A.901(g) certifying staff making the recommendation with sufficient notice so that it may organise itself according to M.A.901(e)(j).

Furthermore, this part of the investigation should be carried out by appropriate airworthiness review staff in accordance with M.B.902(b).

5. Only when satisfied the aircraft is airworthy, should the inspector issue an airworthiness review certificate.

### **AMC M.B.902(b) Airworthiness review by the competent authority**

1. A person qualified in accordance with AMC M.B.102 (c) subparagraph 1.5 should be considered as holding the equivalent to an aeronautical degree.
2. "experience in continuing airworthiness" means any appropriate combination of experience in tasks related to aircraft maintenance and/or continuing airworthiness management (engineering) and/or surveillance of such tasks.
- ~~2.3.~~ An appropriate Part-66 licence is a category B or C licence in the subcategory of the aircraft reviewed. It is not necessary to satisfy the recent experience requirements of Part 66 at the time of the review nor to hold the type rating on the particular aircraft.
- ~~3.~~ 4. To hold a position with appropriate responsibilities means the airworthiness review staff should have a position within the competent authority that authorises that person to sign on behalf that competent authority.
- ~~4.~~ 5. A person in the competent authority carrying out airworthiness reviews or airworthiness certificate renewal inspections in a Member State, prior to the date of entry into force of Part-M should be considered as complying with M.B.902(b).

### **AMC M.B.902(b)(1) Airworthiness review by the competent authority**

For all aircraft used in commercial air transport and any other aircraft, other than balloons, above 2730 kg MTOM, formal aeronautical maintenance training means training (internal or external) supported by evidence on the following subjects:

- Relevant parts of continuing airworthiness regulations.
- Relevant parts of operational requirements and procedures, if applicable.
- Knowledge of the internal procedures for continuing airworthiness.
- Knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course. These courses should be at least at a level equivalent to Part-66 Level 1 General Familiarization.

“Relevant sample” means that these courses should cover typical systems embodied in those aircraft being within the scope of approval

### **AMC M.B.902(b)(2) Airworthiness review by the competent authority**

For all balloons and any other aircraft of 2730 Kg MTOM and below, not used in commercial air transport, appropriate aeronautical maintenance training means demonstrated knowledge of the following subjects:

- Relevant parts of continuing airworthiness regulations.
- Relevant parts of operational requirements and procedures, if applicable.
- Knowledge of the internal procedures for continuing airworthiness.
- Knowledge of a relevant sample of the type(s) of aircraft gained through training and/or work experience. Such knowledge should be at least at a level equivalent to Part-66 Level 1 General Familiarization.

“Relevant sample” means that these courses should cover typical systems embodied in those aircraft being within the scope of approval

This knowledge may be demonstrated by documented evidence or by an assessment performed by the competent authority. This assessment should be recorded.

### **AMC to Appendix VIII “Limited Pilot Owner Maintenance”**

1. The lists here below specify items that can be expected to be completed by an owner who holds a current and valid pilot licence for the aircraft type involved and who meets the competence and responsibility requirements of Appendix VIII to Part-M.
2. The list of tasks may not address in a detailed manner the specific needs of the various aircraft categories. In addition, the development of technology and the nature of the operations undertaken by these categories of aircraft cannot be always adequately considered.
3. Therefore, the following lists are considered to be the representative scope of limited Pilot-owner maintenance referred to in M.A.803 and Appendix VIII:
  - Part A applies to aeroplanes;
  - Part B applies to rotorcraft;
  - Part C applies to sailplanes and powered sailplanes;
  - Part D applies to hot air airships, hot air balloons and gas balloons.
4. Inspection tasks/checks of any periodicity included in an approved maintenance programme can be carried out providing that the specified tasks are included in the generic lists of Parts A to D of this AMC and remains compliant with Part M Appendix VIII basic principles.

The content of periodic inspections/checks as well as their periodicity is not regulated or standardized in an aviation specification. It is the decision of the manufacturer/Type Certificate Holder (TCH) to recommend a schedule for each specific type of inspection/check.

For an inspection/check with the same periodicity for different TCHs, the content may differ, and in some cases may be critically safety related and may need the use of special

tools or knowledge and thus would not qualify for Pilot-owner maintenance. Therefore the maintenance carried out by the Pilot-owner cannot be generalised to specific inspections such as 50 Hrs, 100 Hrs or 6 Month periodicity.

The Inspections to be carried out are limited to those areas and tasks listed in this AMC to Appendix VIII; this allows flexibility in the development of the maintenance programme and does not limit the inspection to certain specific periodic inspections. A 50 Hrs /6 Month periodic inspection for a fixed wing aeroplane as well as the one-year inspection on a glider may normally be covered in the maintenance programme.

## **TABLES**

**Note:** Tasks in Part A or Part B shown with \*\* exclude IFR operations following Pilot-owner maintenance. For these aircraft to operate under IFR operations, these tasks must be released by an appropriate licensed engineer.

### **Part A / PILOT-OWNER MAINTENANCE TASKS for POWERED AIRCRAFT (AEROPLANES)**

<b>ATA</b>	<b>Area</b>	<b>Task</b>	<b>Aeroplanes &lt;=2730 kg</b>
09	Towing	Tow release unit and tow cable retraction mechanism – Cleaning, lubrication and tow cable replacement (including weak links).	Yes
		Mirror –Installation and replacement of mirrors.	Yes
11	Placards	Placards, Markings – Installation and renewal of placards and markings required by AFM and AMM.	Yes
12	Servicing	Lubrication – Those items not requiring a disassembly other than of non-structural items such as cover plates, cowlings and fairings.	Yes
20	Standard Practices	Safety Wiring – Replacement of defective safety wiring or cotter keys, excluding those in engine controls, transmission controls and flight control systems.	Yes
		Simple Non-Structural Standard Fasteners – Replacement and adjustment, excluding the replacement of receptacles and anchor nuts requiring riveting.	Yes
21	Air Conditioning	Replacement of flexible hoses and ducts.	Yes
23	Communication.	Communication devices – Remove and replace self contained, front instrument panel mount communication devices with quick disconnect connectors, excluding IFR operations.	Yes**
24	Electrical power	Batteries – Replacement and servicing, excluding servicing of Ni-Cd batteries and IFR operations.	Yes**

		Wiring – Repairing broken circuits in non critical equipment, excluding ignition system, primary generating system and required communication, navigation system and primary flight instruments.	Yes
		Bonding – Replacement of broken bonding cable.	Yes
		Fuses – Replacement with the correct rating.	Yes
25	Equipment	Safety Belts – Replacement of safety belts and harnesses excluding belts fitted with airbag systems.	Yes
		Seats – Replacement of seats or seat parts not involving disassembly of any primary structure or control system.	Yes
		Non essential instruments and/or equipment - Replacement of self contained, front instrument panel mount equipment with quick disconnect connectors.	Yes
		Oxygen System – Replacement of portable oxygen bottles and systems in approved mountings, excluding permanently installed bottles and systems.	Yes
		ELT – Removal / Re-installation.	Yes
27	Flight controls	Removal or re-installation of co-pilot control column and rudder pedals where provision for quick disconnect is made by design.	Yes
28	Fuel System	Fuel Filter elements – Cleaning and/or replacement.	Yes
30	Ice and Rain Protection	Windscreen Wiper – Replacement of wiper blade.	Yes
31	Instruments	Instrument Panel– Removal and re-installation provided this it is a design feature with quick disconnect connectors, excluding IFR operations.	Yes**
		Pitot Static System – Simple sense and leak check, excluding IFR operations.	Yes**
		Drainage – Drainage of water drainage traps or filters within the Pitot Static system excluding IFR operations.	Yes**
		Instruments – Check for legibility of markings and those readings are consistent with ambient conditions.	Yes
32	Landing Gear	Wheels – Removal, replacement and servicing, including replacement of wheel bearings and lubrication.	Yes
		Servicing – Replenishment of hydraulic fluid	Yes

		Shock Absorber – Replacement of elastic cords or rubber dampers.	Yes
		Shock Struts – Replenishment of oil or air.	Yes
		Skis – Changing between wheel and ski landing gear.	Yes
		Landing skids – Replacement of landing skids and skid shoes.	Yes
		Wheel fairings (spats) – Removal and re-installation.	Yes
		Mechanical brakes – Adjustment of simple cable operated systems.	Yes
		Brake – Replacement of worn brake pads.	Yes
33	Lights	Lights – Replacement of internal and external bulbs, filaments, reflectors and lenses.	Yes
34	Navigation	Software – Updating self contained, front instrument panel mount navigational software databases, excluding automatic flight control systems and transponders.	Yes
		Navigation devices – Removal and replacement of self contained, front instrument panel mount navigation devices with quick disconnect connectors, excluding automatic flight control systems, transponders, primary flight control system and IFR operations.	Yes**
		Self contained data logger – Installation, data restoration.	Yes
51	Structure	Fabric patches – Simple patches extending over not more than one rib and not requiring rib stitching or removal of structural parts or control surfaces.	Yes
		Protective Coating – Applying preservative material or coatings where no disassembly of any primary structure or operating system is involved.	Yes
		Surface finish - Minor restoration where no disassembly of any primary structure or operating system is involved This includes application of signal coatings or thin foils as well as registration markings.	Yes
		Fairings – Simple repairs to non structural fairings and cover plates which do not change the contour.	Yes
52	Doors and Hatches	Doors - Removal and re-installation	Yes
53	Fuselage	Upholstery, furnishing – Minor repairs which do not require disassembly of primary structure or operating systems, or interfere with control systems.	Yes

56	Windows	Side Windows - Replacement if it does not require riveting, bonding or any special process	Yes
61	Propeller	Spinner – Removal and re-installation.	Yes
71	Powerplant installation	Cowling – Removal and re-installation not requiring removal of propeller or disconnection of flight controls.	Yes
		Induction System – Inspection and replacement of induction air filter.	Yes
72	Engine	Chip detectors – Removal, checking and re-installation provided the chip detector is a self sealing type and not electrically indicated.	Yes
73	Engine fuel	Strainer or Filter elements – Cleaning and/or replacement.	Yes
		Fuel - Mixing of required oil into fuel.	Yes
74	Ignition	Spark Plugs – Removal, cleaning, adjustment and re-installation.	Yes
75	Cooling	Coolant - Replenishment of coolant fluid.	Yes
77	Engine Indicating	Engine Indicating – Removal and replacement of self contained, front instrument panel mount indicators that have quick-release connectors and do not employ direct reading connections.	Yes
79	Oil System	Strainer or filter elements – Cleaning and/or replacement.	Yes
		Oil – Changing or replenishment of engine oil and gearbox fluid.	Yes

### **Part B / PILOT-OWNER MAINTENANCE TASKS for ROTORCRAFT**

ATA	Area	Task	Single Engine Rotorcraft ≤2730 kg
11	Placards	Placards, Markings – Installation and renewal of placards and markings required by AFM and AMM.	Yes
12	Servicing	Fuel, oil, hydraulic, de-iced and windshield liquid replenishment.	Yes

		Lubrication – Those items not requiring a disassembly other than of non-structural items such as cover plates, cowlings and fairings.	Yes
<b>20</b>	Standard Practices	Safety Wiring – Replacement of defective safety wiring or cotter keys, excluding those in engine controls, transmission controls and flight control systems.	Yes
		Simple non structural standard fasteners – Replacement and adjustment, excluding latches and the replacement of receptacles and anchor nuts requiring riveting.	Yes
<b>21</b>	Air Conditioning	Replacement of flexible hoses and ducts.	Yes
<b>23</b>	Communication	Communication devices – Remove and replace self contained, front instrument panel mount communication devices with quick disconnect connectors, excluding IFR operations.	Yes**
<b>24</b>	Electrical power	Batteries – Replacement and servicing, excluding servicing of Ni-Cd batteries and IFR operations.	Yes**
		Wiring – Repairing broken circuits in non critical equipment, excluding ignition system, primary generating system and required communication, navigation system and primary flight instruments.	Yes
		Bonding – Replacement of broken bonding cable excluding bonding on rotating parts and flying controls.	Yes
		Fuses – Replacement with the correct rating.	Yes
<b>25</b>	Equipment	Safety Belts - Replacement of safety belts and harnesses excluding belts fitted with airbag systems.	Yes
		Seats – Replacement of seats or seat parts not involving disassembly of any primary structure or control system excluding flight crew seats.	Yes
		Removal / installation of emergency flotation gears with quick disconnect connectors.	Yes
		Non essential instruments and/or equipment - Replacement of self contained, front instrument panel mount equipment with quick disconnect connectors.	Yes
		ELT - Removal / Re-installation.	Yes
<b>30</b>	Ice and rain protection	Windshield wiper replacement	Yes

<b>31</b>	Instruments	Instrument Panel- Removal and re-installation provided this it is a design feature with quick disconnect connectors, excluding IFR operations.	Yes**
		Pitot Static System - Simple sense and leak check, excluding IFR operations.	Yes**
		Drainage - Drainage of water drainage traps or filters within the Pitot Static system excluding IFR operations.	Yes**
		Instruments - Check for legibility of markings and those readings are consistent with ambient conditions.	Yes
<b>32</b>	Landing Gears	Wheels - Removal, replacement and servicing, including replacement of wheel bearings and lubrication.	Yes
		Replacement of skid wear shoes.	Yes
		Fit and remove snow landing pads.	Yes
		Servicing - Replenishment of hydraulic fluid	Yes
		Brake - Replacement of worn brake pads	Yes
<b>33</b>	Lights	Lights - replacement of internal and external bulbs, filaments, reflectors and lenses	Yes
<b>34</b>	Navigation	Software - Updating self contained, front instrument panel mount navigational software databases, excluding automatic flight control systems and transponders.	Yes
		Navigation devices - Remove and replace self contained, front instrument panel mount navigation devices with quick disconnect connectors, excluding automatic flight control systems, transponders, primary flight control system and IFR operations.	Yes**
		Self contained data logger - Installation, data restoration	Yes
<b>51</b>	Structure	Protective Coating - Applying preservative material or coatings where no disassembly of any primary structure or operating system is involved.	Yes
		Surface finish - Minor restoration where no disassembly of any primary structure or operating system is involved, excluding intervention on main and tail rotors. This includes application of signal coatings or thin foils as well as Registration markings.	Yes
		Fairings - Simple repairs to non structural fairings and cover plates which do not change the contour.	Yes
<b>52</b>	Doors	Doors - Removal and re-installation.	Yes



<b>53</b>	Fuselage	Upholstery, furnishing – Minor repairs which do not require disassembly of primary structure or operating systems, or interfere with control systems.	Yes
<b>56</b>	Windows	Side Windows - Replacement if it does not require riveting, bonding or any special process.	Yes
<b>62</b>	Main rotor	Removal/installation of main rotor blades that are designed for removal where special tools are not required (tail rotor blades excluded) limited to installation of the same blades previously removed refitted in the original position.	Yes
<b>63</b> <b>65</b>	Transmission	Chip detectors – Remove, check and replace provided the chip detector is a self sealing type and not electrically indicated.	Yes
<b>67</b>	Flight control	Removal or re-installation of co-pilot cyclic and collective controls and yaw pedals where provision for quick disconnect is made by design.	Yes
<b>71</b>	Powerplant installation	Cowlings - Removal and re-fitment.	Yes
<b>72</b>	Engine	Chip detectors –removal, checking and re-installation provided the chip detector is a self sealing type and not electrically indicated	Yes
<b>79</b>	Oil System	Filter elements – Replacement, provided that the element is of the "spin on/off" type.	Yes
		Oil - Changing or replenishment of engine oil.	Yes

### **Part C / PILOT-OWNER MAINTENANCE TASKS for SAILPLANES AND POWERED SAILPLANES**

#### **Abbreviations applicable to this Part:**

N/A not applicable for this category

SP sailplane

SSPS self sustained powered sailplane

SLPS/TM self launching powered sailplane/touring motorglider

<b>ATA</b>	<b>Area</b>	<b>Task</b>	<b>SP</b>	<b>SSPS</b>	<b>SLPS/ TM</b>
08	Weighing	Recalculation – Small changes of the Trim plan without needing a reweighing.	Yes	Yes	Yes

09	Towing	Tow release unit and tow cable retraction mechanism – Cleaning, lubrication and tow cable replacement (including weak links).	Yes	Yes	Yes
		Mirror - Installation and replacement of mirrors.	Yes	Yes	Yes
11	Placards	Placards, Markings – Installation and renewal of placards and markings required by AFM and AMM.	Yes	Yes	Yes
12	Servicing	Lubrication – Those items not requiring a disassembly other than of non-structural items such as cover plates, cowlings and fairings.	Yes	Yes	Yes
20	Standard Practices	Safety Wiring – Replacement of defective safety wiring or cotter keys, excluding those in engine controls, transmission controls and flight control systems.	Yes	Yes	Yes
		Simple Non Structural Standard Fasteners – Replacement and adjustment, excluding the replacement of receptacles and anchor nuts requiring riveting.	Yes	Yes	Yes
		Free play – Measurement of the free play in the control system and the wing to fuselage attachment including minor adjustments by simple means provided by the manufacturer.	Yes	Yes	Yes
21	Air Conditioning	Replacement of flexible hoses and ducts.	Yes	Yes	Yes
23	Communication	Communication devices – Remove and replace self contained, front instrument panel mount communication devices with quick disconnect connectors.	Yes	Yes	Yes
24	Electrical power	Batteries and solar panels – Replacement and servicing.	Yes	Yes	Yes
		Wiring - Installation of simple wiring connections to the existing wiring for additional non required equipment such as electric variometers, flight computers but excluding required communication, navigation systems and engine wiring.	Yes	Yes	Yes
		Wiring – Repairing broken circuits in landing light and any other wiring for non required equipment such as electrical variometers or flight computers, excluding ignition system, primary generating system and required communication, navigation system and primary flight instruments.	Yes	Yes	Yes
		Bonding – Replacement of broken bonding cable.	Yes	Yes	Yes
		Switches – This includes soldering and crimping of non required equipment such as electrical variometers or flight computers, but excluding ignition system, primary generating system and required communication, navigation system and primary flight instruments.	Yes	Yes	Yes

		Fuses – Replacement with the correct rating.	Yes	Yes	Yes
25	Equipments	Safety Belts – Replacement of safety belt and harnesses.	Yes	Yes	Yes
		Seats – Replacement of seats or seat parts not involving disassembly of any primary structure or control system.	Yes	Yes	Yes
		Non essential instruments and/or equipments - Replacement of self contained, front instrument panel mount equipment with quick disconnect connectors.	Yes	Yes	Yes
		Removal and installation of non required instruments and/or equipment.	Yes	Yes	Yes
		Wing Wiper, Cleaner – Servicing, removal and re-installation not involving disassembly or modification of any primary structure, control	Yes	Yes	Yes
		Static Probes – Removal or re-installation of variometer static and total energy compensation probes.	Yes	Yes	Yes
		Oxygen System – Replacement of portable oxygen bottles and systems in approved mountings, excluding permanently installed bottles and systems.	Yes	Yes	Yes
		Air Brake Chute – Installation and servicing	Yes	Yes	Yes
		ELT – Removal / Re-installation.	Yes	Yes	Yes
26	Fire Protection	Fire Warning – Replacement of sensors and indicators.	N/A	Yes	Yes
27	Flight Control	Gap Seals – Installation and servicing if it does not require complete flight control removal.	Yes	Yes	Yes
		Control System – Measurement of the control system travel without removing the control surfaces.	Yes	Yes	Yes
		Control Cables – Simple optical Inspection for Condition.	Yes	Yes	Yes
		Gas Dampener – Replacement of Gas Dampener in the Control or Air Brake System.	Yes	Yes	Yes
		Co-pilot stick and pedals - Removal or re-installation where provision for quick disconnect is made by design.	Yes	Yes	Yes
28	Fuel System	Fuel lines – Replacement of prefabricated fuel lines fitted with self sealing couplings.	N/A	Yes	NO

		Fuel Filter – Cleaning and/or replacement.	N/A	Yes	Yes
31	Instruments	Instrument Panel– Removal and re-installation provided this is a design feature with quick disconnect, excluding IFR operations.	Yes	Yes	Yes
		Pitot Static System – Simple sense and leak check.	Yes	Yes	Yes
		Instrument Panel vibration damper / shock absorbers- Replacement.	Yes	Yes	Yes
		Drainage – Drainage of water drainage traps or filters within the Pitot static system.	Yes	Yes	Yes
		Flexible tubes - Replacement of damaged tubes.	Yes	Yes	Yes
32	Landing Gear	Wheels – Removal, replacement and servicing, including replacement of wheel bearings and lubrication.	Yes	Yes	Yes
		Servicing – Replenishment of hydraulic fluid	Yes	Yes	Yes
		Shock Absorber – Replacement or servicing of elastic cords or rubber dampers.	Yes	Yes	Yes
		Shock Struts – Replenishment of oil or air.	Yes	Yes	Yes
		Landing gear doors - Removal or re-installation and repair including operating straps.	Yes	Yes	Yes
		Skis – Changing between wheel and ski landing gear.	Yes	Yes	Yes
		Skids – Removal or re-installation and servicing of main, wing and tail skids.	Yes	Yes	Yes
		Wheels fairing (spats) – Removal and re-installation.	Yes	Yes	Yes
		Mechanical brakes – Adjustment of simple cable operated systems.	Yes	Yes	Yes
		Brake – Replacement of worn brake pads.	Yes	Yes	Yes
		Springs – Replacement of worn or aged springs.	Yes	Yes	Yes
		Gear Warning –Removal or re-installation of simple gear warning systems.	Yes	Yes	Yes
33	Lights	Lights – Replacement of internal and external bulbs, filaments, reflectors and lenses.	N/A	N/A	Yes

34	Navigation	Software – Updating self contained, front instrument panel mount navigational software databases, excluding automatic flight control systems and transponders and including update of non required instruments / equipments.	Yes	Yes	Yes
		Navigation devices – Removal and replacement of self contained, front instrument panel mount navigation devices with quick disconnect connectors, excluding automatic flight control systems, transponders, primary flight control system.	Yes	Yes	Yes
		Self contained data logger – Installation, data restoration	Yes	Yes	Yes
51	Structure	Fabric patches – Simple patches extending over not more than one rib and not requiring rib stitching or removal of structural parts or control surfaces.	Yes	Yes	Yes
		Protective Coating – Applying preservative material or coatings where no disassembly of any primary structure or operating system is involved.	Yes	Yes	Yes
		Surface finish - Minor restoration of paint or coating where the under laying primary structure is not affected. This includes application of signal coatings or thin foils as well as Registration markings.	Yes	Yes	Yes
		Fairings – Simple repairs to non structural fairings and cover plates which do not change the contour.	Yes	Yes	Yes
52	Doors	Doors - Removal and re-installation.	Yes	Yes	Yes
53	Fuselage	Upholstery, furnishing – Minor repairs which do not require disassembly of primary structure or operating systems, or interfere with control systems.	Yes	Yes	Yes
56	Windows	Side Windows - Replacement if it does not require riveting, bonding or any special process.	Yes	Yes	Yes
		Canopies - Removal and re-fitment.	Yes	Yes	Yes
		Gas dampener – Replacement of Canopy Gas dampener.	Yes	Yes	Yes
57	Wings	Wing Skids – Removal or re-installation and service of lower wing skids or wing roller including spring assembly.	Yes	Yes	Yes
		Water ballast – Removal or re-installation of flexible tanks.	Yes	Yes	Yes
		Turbulator and sealing tapes – Removal or re-installation of approved sealing tapes and turbulator tapes.	Yes	Yes	Yes
61	Propeller	Spinner – Removal and re-installation.	N/A	Yes	Yes

71	Power Plant installation	Removal or installation of power plant unit including engine and propeller.	N/A	Yes	NO
		Cowling - Removal and re-installation not requiring removal of propeller or disconnection of flight controls.	N/A	Yes	Yes
		Induction System - Inspection and replacement of induction air filter.	N/A	Yes	Yes
72	Engine	Chip detectors - Removal, checking and re-installation provided the chip detector is a self sealing type and not electrically indicated.	N/A	Yes	Yes
73	Engine fuel	Strainer or Filter elements - Cleaning and/or replacement.	N/A	Yes	Yes
		Fuel - Mixing of required oil into fuel.	N/A	Yes	Yes
74	Ignition	Spark Plugs - Removal, cleaning, adjustment and re-installation.	N/A	Yes	Yes
75	Cooling	Coolant - Replenishment of coolant fluid.	N/A	Yes	Yes
76	Engine Controls	Controls - Minor adjustments of non-flight or propulsion controls whose operation is not critical for any phase of flight.	N/A	Yes	NO
77	Engine Indicating	Engine Indicating - Removal and replacement of self contained, front instrument panel mount indicators that have quick-release connectors and do not employ direct reading connections.	N/A	Yes	Yes
79	Oil System	Strainer or Filter elements - Cleaning and/or replacement.	N/A	Yes	Yes
		Oil - Changing or replenishment of engine oil and gearbox fluid.	N/A	Yes	Yes

### **Part D / PILOT-OWNER MAINTENANCE TASKS for BALLOONS / AIRSHIPS**

<b>Area and Task</b>	<b>Hot Air Airship</b>	<b>Hot Air Balloon</b>	<b>Gas Balloon</b>
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<b>A) ENVELOPE</b>			
1- Fabric repairs- excluding complete panels (as defined in, and in accordance with, Type Certificate holders' instructions) not requiring load tape repair or replacement.	Yes	Yes	NO
2- Nose line - Replacement	Yes	N/A	N/A
3- Banners- fitment, replacement or repair (without sewing).	Yes	Yes	Yes
4- Melting link (temperature flag) - replacement.	Yes	Yes	N/A
5-Temperature transmitter and temperature indication cables - removal or reinstallation	Yes	Yes	N/A
6- Crown line- replacement (where permanently attached to the crown ring )	No	Yes	N/A
7- Scoop or skirt-replacement or repair of (including fasteners).-	No	Yes	N/A
<b>B) BURNER</b>			
8- Burner-cleaning and lubrication	Yes	Yes	N/A
9- Piezo igniters- adjustment.	Yes	Yes	N/A
10- Burner jets-cleaning and replacement.	Yes	Yes	N/A
11- Burner frame corner buffers-replacement or reinstallation.	Yes	Yes	N/A
12- Burner Valves - adjustment of closing valve not requiring special tools or test equipment.	Yes	Yes	N/A

<b>C) BASKET AND GONDOLA</b>			
13- Basket frame trim-repair or replacement	NO	Yes	Yes
14- Basket runners-repair or replacement	No	Yes	Yes
15- External rope handles-repair.	NO	Yes	Yes
16- Replacement of seat covers - upholsteries and safety belts.	Yes	NO	NO
<b>D) FUEL CYLINDER</b>			
17- Liquid valve-replacement of O-rings.	Yes	Yes	No

<b>E) INSTRUMENTS AND EQUIPMENT</b>			
18- Batteries-replacement of for self contained instruments and communication equipment.	Yes	Yes	Yes
19- Communication, navigation devices, instruments and/or equipment – Remove and replace self contained, instrument panel mounted communication devices with quick disconnect connectors.	Yes	Yes	Yes
<b>F) ENGINES</b>			
20- Cleaning and Lubrication not requiring disassembly other than removal of non-structural items such as cover plates, cowlings and fairings.	Yes	N/A	N/A
21- Cowling-removal and re-fitment not requiring removal of the propeller	Yes	N/A	N/A
22- Fuel and oil strainers and/or filter elements- Removal, cleaning and/or replacement	Yes	N/A	N/A
23- Batteries-replacing and servicing excluding Ni-Cd batteries	Yes	N/A	N/A
24- Propeller Spinner – removal and installation for inspection	Yes	N/A	N/A
25- Power plant - Removal or installation of power plant unit including engine and propeller	Yes	N/A	N/A
26- Engine- Chip detectors – remove, check and replace	Yes	N/A	N/A
27- Ignition Spark Plug – removal or installation and adjustment including gap clearance	Yes	N/A	N/A
28- Coolant fluid-replenishment	Yes	N/A	N/A
29- Engine Controls-minor adjustments of non-flight or propulsion controls whose operation is not critical for any phase of flight	Yes	N/A	N/A
30- Engine instruments-removal and replacement.	Yes	N/A	N/A
31- Lubrication oil – changing or replenishment of engine oil and gearbox fluid	Yes	N/A	N/A
32- Fuel lines-replacement of prefabricated hoses with self sealing couplings	Yes	N/A	N/A



**Appendix IV to AMC M.A.604 Maintenance Organisation Manual**

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## Part B – Description

**- Certifying staff**

- Minimum qualification and experience
- List of authorised certifying staff, their scope of qualification and the personal authorisation reference

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## Part C – General Procedures

**- Organisational review**

....

**- Training**

....

**- Contracting Subcontracting of specialised services**

- Selection criteria and control
- Nature of ~~contracted~~ subcontracted work
- List of ~~contractors~~ subcontractors
- Nature of arrangements
- Assignment of responsibilities for the certification of the work performed

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## Part E – Appendices

**- Sample of all documents used.****- List of maintenance locations.****- List of Part 145 or M.A. Subpart F organisations.****- List of subcontracted specialised services.**

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**Appendix VIII to AMC M.A.616**

**This is only applicable to organisations with less than 10 maintenance staff members. For larger organisations, the principles and practices of an independent quality system should be used.**

Depending on the complexity of the small organisation (number and type of aircraft, number of different fleets, subcontracting of specialised services, etc), the organisational review system may vary from a system using the principles and practices of a quality system (except for the requirement of independence) to a simplified system adapted to the low complexity of the organisation and the aircraft managed.

As a core minimum, the organisational review system should have the following features, which should be described in the Maintenance Organisation Manual (MOM):

a. Identification of the person responsible for the organisational review program.

By default, this person should be the accountable manager, unless he delegates this responsibility to (one of) the M.A.606(b) person(s).

b. Identification and qualification criteria for the person(s) responsible for performing the organisational reviews.

These persons must have a thorough knowledge of the regulations and of the maintenance organisation procedures. They should also have knowledge of audits, acquired through training or through experience (preferably as an auditor, but also possibly because they actively participated in several audits conducted by the competent authority).

c. Elaboration of the organisational review program:

- Checklist(s) covering all items necessary to be satisfied that the organisation delivers a safe product and complies with the regulation. All procedures described in the MOM should be addressed.
- A schedule for the accomplishment of the checklist items. Each item should be checked at least every 12 months. The organisation may choose to conduct one full review annually or to conduct several partial reviews.

d. Performance of organisational reviews

Each checklist item must be answered using an appropriate combination of:

- review of records, documentation, etc.
- sample check of aircraft under contract or being maintained under a work order.
- interview of personnel involved.
- review of discrepancies and difficulty internal reports (e.g. notified difficulties in using current procedures and tools, systematic deviations from procedures, etc).
- review of complaints filed by customers after delivery

e. Management of findings and occurrence reports

- All findings must be recorded and notified to the affected persons.
- All level 1 findings, in the sense of M.A.619(a), must be immediately notified to the competent authority and all necessary actions on aircraft in service must be immediately taken.
- All occurrence reports should be reviewed with the aim for continuous improvement of the system by identifying possible corrective and preventive actions. This should be done in order to find prior indicators (e.g. notified difficulties in using current procedures and tools, systematic deviations from procedures, unsafe behaviours, etc), and dismissed alerts that, had they been recognized and appropriately managed before the event, could have resulted in the undesired event being prevented

- Corrective and preventive actions must be approved by the person responsible for the organisational review program and implemented within a specified time frame.
- Once the person responsible for the organisational review program is satisfied that the corrective action is effective, closure of the finding should be recorded along with a summary of the corrective action.
- The accountable manager should be notified of all significant findings and, on a regular basis, of the global results of the organisational review program.

Following is a typical example of a simplified organisational review checklist, **to be adapted as necessary to cover the MOM procedures:**

### **1 – Scope of work**

Check that:

- All aircraft and components under maintenance or under contract are covered in the Form 3.
- The scope of work in the MOM does not disagree with the Form 3.
- No work has been performed outside the scope of the Form 3 and the MOM.

### **2 - Maintenance data**

- Check that maintenance data to cover the aircraft in the scope of work of the MOM are present and up-to-date;
- Check that no change has been made to the maintenance data from the TC holder without being notified;

### **3 – Equipment and Tools**

- Check the equipment and tools against the lists in the MOM and check if still appropriate to the TC holder's instructions;
- Check tools for proper calibration (sample check).

### **4 – Stores**

- Do the stores meet the criteria in the procedures of the MOM?
- Check by sampling some items in the store for presence of proper documentation any overdue items.

### **5 – Certification of maintenance**

- Has maintenance on products and components been properly certified?
- Have implementation of modifications/repairs been carried out with appropriate approval of such modifications/repairs (sample check)

### **6 – Relations with the owners/operators**

- Has maintenance been carried out with suitable work orders?
- When a contract has been signed with an owner/operator, has the obligations of the contracts been respected on each side?

### **7 – Personnel**

- Check that the current accountable manager and other nominated persons are correctly identified in the approved MOM.
- If the number of personnel has decreased or if the activity has increased, check that the staff is still adequate to ensure a safe product.
- Check that the qualification of all new personnel (or personnel with new functions) has been appropriately assessed.

- Check that the staff has been trained, as necessary, to cover changes in:
  - regulations,
  - competent authority publications
  - the MOM and associated procedures
  - the products in the scope of work
  - maintenance data (significant ADs, SBs, ...)

#### **8 – Maintenance contracted**

- Sample check of maintenance records:
  - Existence and adequacy of the work order
  - Data received from the maintenance organisation:
    - Valid CRS including any deferred maintenance
    - List of removed and installed equipment and copy of the associated Form 1 or equivalent.
- Obtain a copy of the current approval certificate (Form 3) of the maintenance organisations contracted

#### **9 – Maintenance sub-contracted**

- Check that sub-contractors for specialised services are properly controlled by the organisation;

#### **10 – Technical records and record-keeping**

- Have the maintenance actions been properly recorded?
- Have the certificates (Form 1 and Conformity certificates) been properly collected and recorded?
- Perform a sample check of technical records to ensure completeness and storage during the appropriate periods.
- Is storage of computerised data properly ensured?

#### **11 – Occurrence reporting procedures**

- Check that reporting are properly processed
- Actions taken and recorded.

**Appendix XII to AMC M.A.712(f)**

**Organisational reviews may replace a full quality system in accordance with the provisions of M.A.712(f) and AMC M.A.712(f) and as described in the continuing airworthiness management exposition (CAME)**

Depending on the complexity of the small organisation (number and type of aircraft, number of different fleets, privilege to perform airworthiness reviews, etc), the organisational review system may vary from a system using the principles and practices of a quality system (except for the requirement of independence) to a simplified system adapted to the low complexity of the organisation and the aircraft managed.

As a core minimum, the organisational review system should have the following features, which should be described in the CAME:

f. Identification of the person responsible for the organisational review program.

By default, this person should be the accountable manager, unless he delegates this responsibility to (one of) the M.A.706(c) person(s).

g. Identification and qualification criteria for the person(s) responsible for performing the organisational reviews.

These persons must have a thorough knowledge of the regulations and of the continuing airworthiness management organisation (CAMO) procedures. They should also have knowledge of audits, acquired through training or through experience (preferably as an auditor, but also possibly because they actively participated in several audits conducted by the competent authority).

h. Elaboration of the organisational review program:

- Checklist(s) covering all items necessary to be satisfied that the organisation delivers a safe product and complies with the regulation. All procedures described in the CAME should be addressed.
- A schedule for the accomplishment of the checklist items. Each item should be checked at least every 12 months. The organisation may choose to conduct one full review annually or to conduct several partial reviews.

i. Performance of organisational reviews

Each checklist item must be answered using an appropriate combination of:

- review of records, documentation, etc.
- sample check of aircraft under contract.
- interview of personnel involved.
- review of discrepancies and difficulty internal reports (e.g. notified difficulties in using current procedures and tools, systematic deviations from procedures, etc).
- review of complaints filed by customers.

j. Management of findings and occurrence reports

- All findings must be recorded and notified to the affected persons.
- All level 1 findings, in the sense of M.A.716(a), must be immediately notified to the competent authority and all necessary actions on aircraft in service must be immediately taken.
- All occurrence reports should be reviewed with the aim for continuous improvement of the system by identifying possible corrective and preventive actions. This should be done in order to find prior indicators (e.g. notified difficulties in using current

procedures and tools, systematic deviations from procedures, unsafe behaviours, etc), and dismissed alerts that, had they been recognized and appropriately managed before the event, could have resulted in the undesired event being prevented

- Corrective and preventive actions must be approved by the person responsible for the organisational review program and implemented within a specified time frame.
- Once the person responsible for the organisational review program is satisfied that the corrective action is effective, closure of the finding should be recorded along with a summary of the corrective action.
- The accountable manager should be notified of all significant findings and, on a regular basis, of the global results of the organisational review program.

Following is a typical example of a simplified organisational review checklist, **to be adapted as necessary to cover the CAME procedures:**

### **1 – Scope of work**

- All aircraft under contract are covered in the Form 14.
- The scope of work in the CAME does not disagree with the Form14.
- No work has been performed outside the scope of the Form 14 and the CAME.
- Is it justified to retain in the approved scope of work aircraft types for which the organisation has no longer aircraft under contract?

### **2 – Airworthiness situation of the fleet**

- Does the continuing airworthiness status (AD, maintenance programme, life limited components, deferred maintenance, ARC validity) show any expired items? If so, are the aircraft grounded?

### **3 - Maintenance programme**

- Check that all revisions to the TC/STC holders Instructions for Continuing Airworthiness, since the last review, have been (or are planned to be) incorporated in the maintenance programme, unless otherwise approved by the Competent Authority.
- Has the maintenance programme been revised to take into account all modifications or repairs impacting the maintenance programme?
- Have all maintenance programme amendments been approved at the right level (competent authority or indirect approval)?
- Does the status of compliance with the maintenance programme reflect the latest approved maintenance programme?
- Has the use of maintenance programme deviations and tolerances been properly managed and approved?

### **4 – Airworthiness Directives (and other mandatory measures issued by the competent authority)**

- Have all ADs issued since the last review been incorporated into the AD status?
- Does the AD status correctly reflect the AD content: applicability, compliance date, periodicity...? (sample check on ADs)

### **5 – Modifications/repairs**

- Are all modifications/repairs listed in the corresponding status approved in accordance with M.A.304? (sample check on modifications/repairs)

- Have all the modifications/repairs which have been installed since the last review been incorporated in the corresponding status? (sample check from the aircraft/component logbooks)

## **6 – Relations with the owners/operators**

- Has a contract (in accordance with Annex I to Part M) been signed with each external owner/operator, covering all the aircraft whose airworthiness is managed by the CAMO?
- Have the owners/operators under contract fulfilled their obligations identified in the contract? As appropriate:
  - Are the pre-flight checks correctly performed? (interview of pilots)
  - Are the technical log or equivalent correctly used (record of flight hours/cycles, defects reported by the pilot, identification of what maintenance is next due etc.)?
  - Did flights occur with overdue maintenance or with defects not properly rectified or deferred? (sample check from the aircraft records)
  - Has maintenance been performed without notifying the CAMO (sample check from the aircraft records, interview of the owner/operator)

## **7 – Personnel**

- Check that the current accountable manager and other nominated persons are correctly identified in the approved CAME.
- If the number of personnel has decreased or if the activity has increased, check that the organisation still has sufficient staff.
- Check that the qualification of all new personnel (or personnel with new functions) has been appropriately assessed.
- Check that the staff has been trained, as necessary, to cover changes in:
  - regulations,
  - competent authority publications
  - the CAME and associated procedures
  - the approved scope of work
  - maintenance data (significant ADs, SBs, ICA amendments...)

## **8 – Maintenance contracted**

- Sample check of maintenance records:
  - Existence and adequacy of the work order
  - Data received from the maintenance organisation:
    - Valid CRS including any deferred maintenance
    - List of removed and installed equipment and copy of the associated Form 1 or equivalent.
- Obtain a copy of the current approval certificate (Form 3) of the maintenance organisations contracted

## **9 – Technical records and record-keeping**

- Have the certificates (Form 1 and Conformity certificates) been properly collected and recorded?
- Perform a sample check of technical records to ensure completeness and storage during the appropriate periods.
- Is storage of computerised data properly ensured?

**10 – Occurrence reporting procedures**

- Check that reporting are properly processed
- Actions taken and recorded.

**11 – Airworthiness review**



## **AMC to Part-145**

### **AMC 145.A.50(a) Certification of maintenance**

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2.8. Used aircraft components maintained by organisations not approved in accordance with Part-145.

For used components maintained by a maintenance organisation unapproved under Part-145, due care should be exercised before acceptance of such components. In such cases an appropriately rated maintenance organisation approved under Part-145 should establish satisfactory conditions by:

- (a) dismantling the component for sufficient inspection in accordance with the appropriate maintenance data,
- (b) replacing of all service life limit components when no satisfactory evidence of life used is available and/or the components are in an unsatisfactory condition,
- (c) reassembling and testing as necessary the component,
- (d) completing all certification requirements as specified in 145.A.50

In the case of used components maintained by an FAA Part-145 repair station (USA) or by TCCA CAR573 approved maintenance organisations (Canada) that do not hold an EASA Part-145 approval, the conditions (a) through (d) described above may be replaced by the following conditions:

- (a) availability of an 8130-3 (FAA) or TCCA 24-0078 (TCCA) certificate of release to service.
- (b) verification of compliance with all applicable airworthiness directives, and
- (c) verification that the component does not contain repairs or modifications that have not been approved in accordance with Part-21.
- (d) inspection for satisfactory condition including in particular damage, corrosion or leakage.
- (e) issuance of a Form 1 in compliance with paragraphs 2.2, 2.3 and 2.4.

These alleviated requirements are based on the fact that credit can be taken for their technical capabilities and their competent authority oversight, as attested by the following documents:

- BASA / MIP-G Maintenance Implementation Procedures Guidance (USA)
- AAM-G Administrative Arrangement on Maintenance Guidance (Canada)

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