

Feedback received for the Part-M General Aviation Workshop in October 2011

A. SUMMARY (as presented during workshop)

ISSUE 2 Maintenance programmes general – generic MPs and indirect approval procedures

- **Content of the maintenance programme**
 - **Difficult to find the required maintenance in the documentation from manufacturer, differences in content and level of detail, manufacturers follow FAA system.**
 - **NAA interpretation that all maintenance suggested by the manufacturer is mandatory.**
 - **Vintage aircraft do not have proper ICA available: a generic “task based” set of requirements should be offered for some general types of aircraft.**

- **Baseline/ generic maintenance programme**
 - **Generic AMP is not allowed in many Member States.**
 - **Encourage manufacturers of simple light aircraft to adopt common generic maintenance requirements.**
 - **Generic AMP is a good idea if the format can be downloaded from the NAA website.**

- **Burden and cost of review of AMP vs. safety effect**
 - **Appendix I to AMC M.A.302 is not adapted to GA.**
 - **CAMO in GA work in several types and mainly only doing Airworthiness Reviews. Difficult to have an adequate generic AMP for so many different aircraft types. CAMOs should be allowed group ratings without the need for having generic AMP.**
 - **If EASA thinks maintenance documentation issued by manufacturer is insufficient for the safe maintenance of aircraft, then EASA should supply the maintenance programmes.**

- **Indirect approval**
 - **Not allowed in many Member States.**
 - **For aircraft MTOM<2000 kg indirect approval should be authorised to licensed maintenance technicians.**
 - **Indirect Approval does not work cross-borders (the State of Registry usually does not accept indirect approval by a CAMO located in another Member State).**
 - **Cost of being approved for using indirect approval is too high.**

- **No level playing field/standardisation**
 - **What an NAA approves as part of the AMP differs from what is approved by a different NAA for the same aircraft type.**

- **Some NAAs have accepted MPs only quoting the applicable TC holder instructions references, others require complete listing of tasks.**
- **Many NAAs have defined specific national requirements to be included in the AMP. We believe that EASA should evaluate the need to keep these requirements and take actions to ensure they are either deleted or harmonised.**

- **Amendment to Part-M**
 - **Introduce a 100 hours/yearly inspection included in Annex to Part-M instead of AMP.**
 - **Clarify that only ADs and ALIs are mandatory items.**
 - **Eliminate the yearly revision of the AMP, which is a burden for NAA and owners.**

ISSUE 8 Qualification and position (incompatibilities) requirements for airworthiness review staff

➤ Qualifications

- B1/B2 license or relevant engineering degree should not be replaced by additional years of experience.**
- ELA1 national authorisations to be considered as equivalent to Part 66.**
- Delay of B3 and L licenses is impacting the GA community.**
- Lack of proportionality on the qualification requirements for ARS of balloons.**
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➤ Physical survey

- Assistance from a Part-66 should always be required.**
- Role of the Part-66 support staff assisting the ARS during the airworthiness review not clear**

➤ Adequate responsibilities criteria

- Remove the requirement to be independent as per AMC M.A.707 for GA aircraft:**
- Separation of responsibilities in small organisation is not possible.**
- When the ARS is also involved in the accomplishment and certification of maintenance, criterion on independence is not necessary to ensure an adequate level of safety.**

ISSUE 9 Performance of the airworthiness review and issuance of ARC/recommendation

➤ Scope of AR

- AR process significantly increases the cost and paperwork.**
- AR for balloons/gliders should be combined with the yearly inspection and performed by the same person.**
- The AR for simple aircraft must be more in line with the practical aspects. Focus should be on a physical inspection of the aircraft rather than on document verification.**

➤ Privileges

- CAMO should be allowed to issue the ARC instead of recommendation even in non-controlled environment.**
- Allow the Part-66 licensed engineer to perform the AR on any non complex non commercial aircraft.**
- Allow the ARC extension to ELA1 in non-controlled environment.**
- Concept of controlled environment to be relaxed or deleted.**
- Deletion of the concept of recommendations sent to the NAA.**
- Move towards the concept of yearly inspection+ AR as in FAA.**

➤ Period

- Increase the AR period to 3 years for private aircraft which usually fly very few hours per year. This will reduce costs.**
- Limit the AR to the last 12 months when the AR is performed by the same CAMO.**

➤ Other

- Problems with cross border acceptability of reviews, recommendations and certificates.**
- Takes too long to get the AR staff authorisation from the NAA.**
- Time frame of 10 days to send a copy of the ARC to the NAA is too short.**
- More guidance required for the NAA on import of aircraft from third countries.**

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B. DETAILED COMMENTS

(see list of commenters at the end of the document)

ISSUE 2 Maintenance programme general - Generic maintenance programmes and indirect approval procedures

Maintenance programme general - Generic maintenance programmes and indirect approval procedures	
CMT	COMMENT
1	<p>Generic maintenance programmes and indirect approval procedure</p> <p>M.A.302(e)</p> <p>The Austrian practise for “simple Aircrafts” (for example balloons) that we may refer to flight and maintenance manuals as - for example: “Cameron Flight Manual latest Issue” – if appropriate, is a substantial reduce in workload.</p> <p>The workload to permanently revise around 100 maintenance programmes with sometimes components of 3-4 different manufacturers might only be managed by dramatically increase costs.</p> <p>The practised way does not reduce safety as the CAMO has to keep manuals updated and performs maintenance orders for the contracted aircrafts.</p>
4	They seem to work but I note we in the UK have to change yet again, lack of effective cooperation between bureaucrats?
6	I find that the implementation of AMP requirement to the GA is a good step to having a more standardized setup for the necessary information for aircraft maintenance.
6	In regards to aircraft scope of work for CAMO organization, then the interpretation og the authority that require the CAMO organization to have an approved AMP on scope to perform amp on same type but other variant to be incorrect and causing high extra cost on the GA in general and increasing workload on both the CAMO organization and the authority. This for instance is best described by pointing out that if a n CAMO organization wants to be able to perform AWR on Cessna 172 series aircraft it is required to have AMP for all variants of that type(C172a,b,c,d,e,f,g,h,i,j,k etc), this does not make any sense as we are not going to have all these aircraft variants under management, just perform AWR on them in accordance to particular aircraft approved AMP. This rule or understanding/interpretation of the EASA might require CAMO organization to have up to 100 or even higher number then that of Basel Line AMP’s to be able to provide AWR service to private aircrafts owners. All these Base Line AMP’s will only sit on the shelf for 12 months and then we have to perform annual review on them every 12 months and burden the authority with revision that only originate from small change in program basis that have no effect on aircraft safety.
9	<p>I have experience with different maintenance schedules and technicians from different companies on the same type of planes in different european countries. From a 'paperwork' point of view, everything is legal and therefore considered safe.</p> <p>However ... The maintenance schedules for the same type of airplane contain big differences. The dutch registered plane needs maintenance every 30 hrs and practically nothing is allowed by owner, where the UK registered plane of the same type needs maintenance every 50 hrs and the owner is allowed to</p>

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	<p>execute almost altask himself.</p> <p>Although the technicians have comparable licenses, the differences in executing the same task as mentioned in the maintenance schedule are really huge as well. One technician is replacing washers and gaskets every inspection, the other technician only when needed.</p> <p>When looking to the situation, the maintenance technician is still executing the same maintenance task on the same way as he did before.</p> <p>The introduction of the Part-M didn't change anything to this.</p>
11	<p>Modifying a generic maintenance program (e.g. CAP 766) for a specific light aircraft type is probably a good idea so long as the generic format may be downloaded from the CAA web-site. The cost of obtaining indirect approval puts many small maintenance businesses off applying.</p>
12	<p>Paragraph 3. introduces the concept of an Approved Maintenance Program (AMP) to GA. The requirements are found in MA 302.</p> <p>In short, the maintenance program is to be individually compiled for each individual aircraft and be approved by the National Authority (NAA). As the AMC MA 302 (d) states, the AMP should <i>"normally be based on the Maintenance Review Board (MRB) report or the relevant chapters of the Maintenance Manual or any other maintenance data containing information on scheduling."</i> We shall return to this paragraph later.</p> <p>While the requirements of MA 302 on the content of the AMP are in no way controversial for large aircraft where the manufacturer, the NAA and in many cases the customers of the aircraft work together to produce a maintenance program that is acceptable to all parties from a cost-safety standpoint. This process is referred to as the Maintenance Steering Group (MSG) work.</p> <p>Before continuing further, the reader must adjust to the fact that the absolute majority of GA aircraft are manufactured in the United States of America, and if they are not, they are manufactured with that market in mind.</p> <p>General Aviation has no such MSG co-operation and the US aircraft manufacturer was up to 1980 free to write his Maintenance Manual (MM) in any fashion he liked. Only after 1980 are US manufacturers required to furnish Instructions for Continued Airworthiness (ICA) for aircraft certified to pt. 23, which is the certification standard for General Aviation aircraft.</p> <p>This means that a Maintenance Manual may contain very detailed maintenance instructions, or it may contain none. There are US-built aircraft in Europe with a Type Certificate (TC) accepted by EASA having no service information at all in their Operating and Service Manual.</p> <p>How is this possible? Answer:</p> <p>The US Federal Aviation Administration (FAA) has a different approach to the continuing airworthiness of GA.</p> <p>The process is based not on the AMP but rather on annual and repetitive inspections by FAA appointed personnel. This has the effect of allowing the aircraft owner to adjust his level of maintenance to what is required by his type of operation or changes in operation without any bureaucratic complexities. As long as his aircraft passes the annual or 100-hour FAA inspections, he is fine.</p> <p>This freedom when writing the MM has also allowed the manufacturer to include a number of other maintenance actions and component replacements, sometimes with such short interval as 30 days.</p> <p>One may suspect that some of these actions and inspections are included in the MM only to strengthen the manufacturer's position in the legal suits for</p>

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damages that seem to occur after any accident or incident in the USA.

The manufacturer is also fully aware that nothing he writes in the MM is mandatory, only the FAA inspections are. (There is however an exemption to this as we shall see later.)

When this US legal situation is combined with AMC MA 302 (d), where the AMP should *"normally be based on the Maintenance Review Board (MRB) report or the relevant chapters of the Maintenance Manual or any other maintenance data containing information on scheduling."* we must anticipate problems.

And there has been problems indeed.

When reading the rule, MA 302, Aircraft Maintenance Programme, it is evident that it is not written with the above information in mind and we will find very little detailed guidance for a GA AMP.

The reader will then turn to the AMC for more details, and this is where it really goes wrong.

Again: *"...normally be based on the Maintenance Review Board (MRB) report or the relevant chapters of the Maintenance Manual **or** any other maintenance data containing information on scheduling."*

The word "or" is in all probability used in order to not exclude any Maintenance Manual named for instance "Operating and Service Manual" to use the example above.

Semantically the use of "or" is problematic, the word may also mean "and" if you choose to read the sentence that way.

Some NAA when approving AMP's have chosen the latter reading of the sentence, with the result that any and all maintenance actions suggested, including door seal lubrication each 30 days have become mandatory parts of the AMP. Unless the owner is prepared to revise the AMP either himself or by paying a CAMO to include this lubrication in the Pilot-Owner Maintenance, he must each 30 days find and pay a certified technician to lubricate his door seal or his aircraft is grounded for being not airworthy. Alternatively, he may show data to his NAA that supports an increase in lubrication intervals...

For those not acquainted with a GA door seal, it equivalent to the seal on a car door, it keeps wind and rain out. How many door seals on a car are or need to be lubricated every 30 days? If an agency of any kind stipulated by law that every car-owner had to go to a garage every 30 days to have a mechanic lubricate his door seals, would there not be an outcry? Probably, and rightfully so.

This paper is our outcry, and the outcry has been going on since 2008 now.

It must be obvious to everyone that a regulation allowing such an interpretation and which leads to this kind of silliness has to be amended.

This reading of the sentence also makes any information with any scheduling information written by anyone in the GA industry mandatory. The effect of this is to put the person compiling an AMP into total insecurity as to if he has found all instructions from all manufacturers of all pieces of installed equipment and parts. He is always worrying the NAA may have found more than he has, and that they will ground the aircraft. This is not fantasy, it happens.

This situation is absolutely devastating for many reasons. First of all it makes being an aircraft owner an expensive and unpredictable hell, but it also, and this is even more damaging, erodes the respect for the rules and regulations. After all, why is it so important to comply with an AD-note when not lubricating a door seal every 30 days will ground you anyway? There are few, if any, AD-notes this burdensome.

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	<p>Slowly the whole regulation becomes a joke and the aircraft owners will one by one turn to illegal measures or give up flying. There are already aircraft flying without a valid ARC, and there are already aircraft grounded for such reasons.</p> <p>From a strictly legal standpoint there are only two things mandatory when it comes to Continuing Airworthiness: AD-notes and airworthiness Limitations (AL). AL are generally limitations to the service life of components, after which they must be scrapped or overhauled. Those limitations are detailed in the Type Certificate either directly or by reference to a certain chapter of the Maintenance Manual.</p> <p>Airworthiness Directives (AD-notes) are issued in response to a more or less acute safety problem and must be complied with in the way the AD-note specifies.</p> <p>This situation is the same in Europe and in the US.</p>
12	<p><u>Suggested Changes to Part M:</u></p> <p>Therefore, taking all this into account and especially the fact that the GA Maintenance Manuals do not contain mandatory maintenance actions according to the FAA, the issuer of the original Type Certificate, AOPA-Sweden proposes to modify MA 302 for non-complex aircraft not used in commercial operations to read:</p> <p><i>MA 302</i></p> <p><i>(d)</i></p> <p>...</p> <p><i>(iii) non-complex aircraft not used in commercial operations, may instead of the maintenance program in (a), (b) and (c) use a repetitive inspection procedure where the required inspection points for the aircraft shall consist of the 100-hour/annual inspections found in the maintenance manual. In the absence of such a list, Appendix XIV to AMC MA 302 may be used. These inspections shall be carried out each 100 hours of operation or annually, whichever occurs first.</i></p> <p><i>The required maintenance for non-complex aircraft not used in commercial operations consists of maintenance for the aircraft and its components mandated by an airworthiness directive or in the form of an airworthiness limitation or by national requirements.</i></p> <p><i>AMC MA 302 (d):</i></p> <p>...</p> <p><i>8. Any reference in the aircraft manufacturers lists or elsewhere in the maintenance manual for replacing components or other maintenance actions are only mandatory if they are part of an airworthiness directive or being an airworthiness limitation item as found in maintenance manual chapter 4 as approved by the competent authority, or found in the type certificate data sheet.</i></p> <p><i>The annual aircraft inspections are those basic inspections found in Appendix XIV to this AMC; and the required maintenance actions are all airworthiness directives and all airworthiness limitations affecting the aircraft or its components.</i></p> <p><i>Any other maintenance such as, but not limited to, engine preservation for corrosion protection, changing to a different configuration landing gear, out of</i></p>

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	<p><i>phase maintenance recommendations, Service Bulletins, replacing of various components etc. are to be carried out as needed only.</i></p> <p>The effect of this will be to limit GA maintenance and especially component replacements to the levels accepted by the competent authority that issued the Type Certificate, in this case the FAA.</p>
12	<p>Appendix XIV to AMC MA 302—Scope and Detail of Items (as Applicable to the Particular Aircraft) To Be Included in Annual and 100-Hour Inspections for non-complex aircraft not used in commercial operations:</p> <p>(a) Each person performing an annual or 100-hour inspection shall, before that inspection, remove or open all necessary inspection plates, access doors, fairing, and cowling. He shall thoroughly clean the aircraft and aircraft engine.</p> <p>(b) Each person performing an annual or 100-hour inspection shall inspect (where applicable) the following components of the fuselage and hull group:</p> <ol style="list-style-type: none"> (1) Fabric and skin—for deterioration, distortion, other evidence of failure, and defective or insecure attachment of fittings. (2) Systems and components—for improper installation, apparent defects, and unsatisfactory operation.. <p>(c) Each person performing an annual or 100-hour inspection shall inspect (where applicable) the following components of the cabin and cockpit group:</p> <ol style="list-style-type: none"> (1) Generally—for uncleanliness and loose equipment that might foul the controls. (2) Seats and safety belts—for poor condition and apparent defects. (3) Windows and windshields—for deterioration and breakage. (4) Instruments—for poor condition, mounting, marking, and (where practicable) improper operation. (5) Flight and engine controls—for improper installation and improper operation. (6) Batteries—for improper installation and improper charge. (7) All systems—for improper installation, poor general condition, apparent and obvious defects, and insecurity of attachment. <p>(d) Each person performing an annual or 100-hour inspection shall inspect (where applicable) components of the engine and nacelle group as follows:</p> <ol style="list-style-type: none"> (1) Engine section—for visual evidence of excessive oil, fuel, or hydraulic leaks, and sources of such leaks. (2) Studs and nuts—for improper torquing and obvious defects. (3) Internal engine—for cylinder compression and for metal particles or foreign matter on screens and sump drain plugs. If there is weak cylinder compression, for improper internal condition and improper internal tolerances. (4) Engine mount—for cracks, looseness of mounting, and looseness of engine to mount. (5) Flexible vibration dampeners—for poor condition and deterioration. (6) Engine controls—for defects, improper travel, and improper safetying. (7) Lines, hoses, and clamps—for leaks, improper condition and looseness. (8) Exhaust stacks—for cracks, defects, and improper attachment. (9) Accessories—for apparent defects in security of mounting.

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(10) All systems—for improper installation, poor general condition, defects, and insecure attachment.

(11) Cowling—for cracks, and defects.

(e) Each person performing an annual or 100-hour inspection shall inspect (where applicable) the following components of the landing gear group:

(1) All units—for poor condition and insecurity of attachment.

(2) Shock absorbing devices—for improper oleo fluid level.

(3) Linkages, trusses, and members—for undue or excessive wear fatigue, and distortion.

(4) Retracting and locking mechanism—for improper operation.

(5) Hydraulic lines—for leakage.

(6) Electrical system—for chafing and improper operation of switches.

(7) Wheels—for cracks, defects, and condition of bearings.

(8) Tires—for wear and cuts.

(9) Brakes—for improper adjustment.

(10) Floats and skis—for insecure attachment and obvious or apparent defects.

(f) Each person performing an annual or 100-hour inspection shall inspect (where applicable) all components of the wing and center section assembly for poor general condition, fabric or skin deterioration, distortion, evidence of failure, and insecurity of attachment.

(g) Each person performing an annual or 100-hour inspection shall inspect (where applicable) all components and systems that make up the complete empennage assembly for poor general condition, fabric or skin deterioration, distortion, evidence of failure, insecure attachment, improper component installation, and improper component operation.

(h) Each person performing an annual or 100-hour inspection shall inspect (where applicable) the following components of the propeller group:

(1) Propeller assembly—for cracks, nicks, binds, and oil leakage.

(2) Bolts—for improper torquing and lack of safetying.

(3) Anti-icing devices—for improper operations and obvious defects.

(4) Control mechanisms—for improper operation, insecure mounting, and restricted travel.

(i) Each person performing an annual or 100-hour inspection shall inspect (where applicable) the following components of the radio group:

(1) Radio and electronic equipment—for improper installation and insecure mounting.

(2) Wiring and conduits—for improper routing, insecure mounting, and obvious defects.

(3) Bonding and shielding—for improper installation and poor condition.

(4) Antenna including trailing antenna—for poor condition, insecure mounting, and improper operation.

(j) Each person performing an annual or 100-hour inspection shall inspect (where applicable) each installed miscellaneous item that is not otherwise

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covered by this listing for improper installation and improper operation.

The above inspections constitute the legal requirement. Use the approved maintenance manuals for detailed information on the methods to use.

When carrying out the Annual Inspection for renewal of the Airworthiness Certificate continue with the following points:

Aircraft Records:

1. Inspect log books to verify that Airframe, Engine and Propeller flying hours have been properly recorded.
2. Inspect Flight Manual to verify that it covers the present aircraft configuration (e.g. floats, skis, wheels etc.) and that it is of the latest revision.
3. -
4. Verify that all known defects have been corrected or carried forward in a controlled manner.
5. Verify that all applicable Airworthiness Directives have been applied and properly registered.
6. Verify that all Airworthiness Limitations as found in the Type Certificates for the Aircraft, Engine and Propeller or in the approved part of the Aircraft Maintenance Manual, i.e. Chapter 4 if applicable, are applied and properly registered.
7. Verify that all components with an Airworthiness Limitation as above have their own log cards and that flying hours are properly registered.
8. Verify that all repairs and modifications carried out since the previous Annual Inspection are approved in accordance with MA 304 and are properly registered.
9. Verify that all maintenance since previous Annual Inspection has been released in accordance with pt. M.
10. Verify that the current Mass and Balance report reflects the present aircraft configuration and is valid.
11. Verify that if the aircraft is required to have a Noise Certificate, it exists and corresponds to the present aircraft configuration.

Physical Survey:

1. Verify that all markings and placards as required by National Requirements, the Type Certificate and/or Flight Manual are present and legible.
2. Verify that no evident defect can be found that has not been carried forward in a controlled manner.
3. Verify that equipment installed in the aircraft corresponds with the Aircraft Records.

13 Whilst it seems sensible to maintain GA Aircraft in accordance with the applicable Type Certificate Holders recommendations some of the inspection schedules raised by these organisations are very sparse. Also it should be highlighted that under the Law of most of the Countries of Manufacture these schedules and component lives stated are only recommendations and have no legal basis. It appears to me that it is only the UK National Authority who interpret the Manufacturers requirements as mandatory. This needs to be addressed and agreed by all member states so that no Country has advantages over another. However it should also be pointed out to the owners of these aircraft that non compliance with Manufacturers recommendations could have disastrous results in the event of an accident. A possibility of void insurance and personal culpability by individuals involved in the maintenance management.

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14	<p>1. Individual Maintenance Programmes (MP): There is a challenge when it comes to older aircraft types, since the requirements for scheduled maintenance have traditionally not been designed in a task based manner. Approved source documents are typically flight-operation and maintenance manuals which for some aircraft are no longer in a proper revision cycle. To adress this problem, the TC holders would be required to update those manuals and to indicate maintenance requirements in a structure that would allow for a "true" MP. This would put an enormous financial burden on the TC holders and subsequently on the aircraft owners.</p> <p>A move to task based maintenance programmes would also sooner or later require to track the MPs with IT-solutions, which would again have to be paid for by the aircraft owners.</p> <p>Proposed solution: To support/relieve the TC holders of vintage/older/ simple aircraft, a generic task based set of requirements should be offered for some general types of aircraft (glider, powered glider, single piston etc.). This list of requirements could then be transferred into an individual MP based on applicability of the given aircraft type. The periodicity of most tasks should fall into the typical intervals, so they could be performed e.g. in conjunction with a 50 flight hour check or the annual airworthiness review.</p> <p>Also, the idea to include the names of pilot/owner persons eligible to execute maintenance tasks in the MP would generate a high volume of revisions of all the individual MPs of the flying clubs. I would propose general guidelines to be documented, e.g. all pilots with a minimum experience of X Flight Hours or Y Flight Cycles on that A/C type shall be eligible for pilot/owner tasks unless explicitly named otherwise in a flying club's regulations.</p>
14	<p>General remark:</p> <p>The requirements for revisions of the MPs are not clear to me. Is it expected that for my 38 year old sailplane, I should annually revise my MP and seek approval for those revisions? That would infact burden the local authorities substantially and generate cost that all the GA members would have to pay for in form of approval fees.</p>
16	<p>Unfortunately we see strange effects. If for good reason some authorized body, be it EASA, Luftfahrtbundesamt, Inspectie Verkeer en Waterstaat issue a maintenance directive applicable to all aircraft, we are obliged to redo and revise all Aircraft Maintenance Programs. In The Netherlands this involves some 800 gliders at a cost of each say EUR 100 adds up to some EUR 80.000. Probably peanuts for an EASA type organization or a major airliner. But is a considerable sum of money if glider flying is your hobby. And even then I could well live with these measures if we were addressing a real (safety) related problem (= how many incidents did we have and how many have we prevented with the new rules?). I do have an issue if aircraft safety is not improved, the work to maintain the aircraft is not simplified and in the end we only moved paper.</p>
17/27	<p>1Administrative burden of managing maintenance programmes is too high</p> <p>The current rules on managing the content of maintenance programme for ELA1 aircraft impose a disproportionately high administrative workload on pilot-owners, clubs and maintenance organizations.</p> <p>The following points taken from the consolidated version of Part M, issued July 2010, Appendix I to AMC M.A.302 and AMC M.B.301 (b), accessed 5 September 2011, do not add, in my opinion, any additional security at all.</p> <p>1.1.4. "A statement ..." why do I need to sign a statement if I am to fly a particular glider myself? Any reasonable person will not elect to perform a flight in an aircraft that is not fit for the flight. I do not think that we need to state that to ourselves.</p> <p>1.1.6. thru 1.1.20. should be reconsidered and reduced for ELA1 aircraft, or sailplanes, to a simple copy of the maintenance programme and procedures as</p>

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	dictated by the aircraft's maintenance manual supplemented with the relevant list of AD's and TN's for the aircraft.
17/27	<p>Financial burden related to the administration and management of maintenance programmes is disproportionate</p> <p>Depending on the subpart G approved organizations in Belgium and neighbouring countries, the extra cost on top of the maintenance work for all this time consuming paperwork can amount to 620 EUR per annum per glider compared to 0 (zero) EUR before entry into force of Regulation No 2042/2003. Many clubs such as ours have (vintage) gliders with market values of less than 5000 EUR. Compared to the value of the glider the Subpart G extra cost is clearly disproportionately excessive.</p>
17/27	<p>Subpart G - no added value</p> <p>It should be noted that a Subpart G and the Subpart F organization are many times combined in one and the same legal entity. Does this add security other than making sure the paperwork is properly filled out?</p> <p>My concern lies not with the technical capabilities of any Subpart F maintenance organization but rather with ratio cost to performance of the Subpart G level. Flight safety sensitive maintenance tasks executed at the level of the subpart F organization already require independent inspections. It is very hard to see what a Subpart G adds in terms of security.</p>
17/27	<p>4. Competent authorities are judge and jury</p> <p>The entry into force of the Regulation has increased the workload on competent authorities to a level where they cannot offer a timely service to their 'customers'. In Belgium, the competent authorities, the BCAA, also acting as Subpart G organisation, need on the average several weeks to approve one maintenance programme. The level of detail required to compile the maintenance programme leads to delays at all levels. Additional costs are incurred since the BCAA charge fees for initial approval of a maintenance programme which previously did not exist, as well as for every amendment to be introduced, while these amendments need to be introduced on their request! When resubmitting the amended maintenance programme, the verification thereof is invoiced at 200 EUR. How can a competent authority be allowed to be judge and party at the same time?</p>
17	<p>Solution</p> <p>The solution should ideally consist of permitting owners or subpart F maintenance organizations to simply refer to the maintenance manual, the AD's and the TN's as the sole basis for the maintenance of ELA1 aircraft whilst abolishing the Subpart G level in future regulations. This will alleviate the financial and administrative workloads and redirect attention to maintaining our fleet of gliders.</p>
20	<p>Our experience it that generic AMP is only made to extend CAMO scope of CAMO that already is providing service to different types of aircraft, possible in commercial operation, but like to provide AR service to private aircraft. The CAMO makes generic or base line AMP to widen its scope but uses the already approved AMP that the aircraft owners has to perform the AR, thus the base line or generic AMP newer get to be used. Most private owners do not like to have its aircraft in CAMO service, they like to do that them self and only need the AR from an CAMO. It would make sense to allow CAMO that is already carrying out CAM for similar aircraft as in GA to perform AR for aircraft not in commercial operation without having to first to get exactly that type on its scope.</p> <p>This is similar to the independent Part 66 license holder that have group rating for example ASPE-MS and AMPE-MS. He/she may some day work on an aircraft that he/she have never seen or worked on before. He/she have the group ratings and can therefore perform work and CRS the aircraft. Similar thinking should be introduced to CAMO organisation that are carrying out service to GA aircraft i.e. to allow group rating for CAMO that are active for one or more aircraft type without having generic or base line AMP first for the type that is in GA.</p>

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21	<p>The requirement for Aircraft Maintenance Program (AMP) set-up is unrealistic for small and private operated aircraft and it only adds a new additional cost issue for the aircraft owner. An AMP for a Piper 28 is now just as complicated and detailed as for a Boeing 747. Again, no increase in flight safety but more time is being spent on paper work and implementation. A specific example is a cost of app; 6.000 Euro from the competent authority to handle and approve an AMP for a Cessna Citation. Even the fact, that the present AMP only was one year old. The only one to pay for this is the owner. A lot of private aircraft owners have already given up and a lot of small aircraft are now for sale.</p>
23	<p>a) Generic Maintenance Programmes</p> <p>As a CAMO with several hundred different types of relatively simple aircraft (Sailplanes and Powered Sailplanes) in reality all actually requiring very similar maintenance it is difficult to reconcile the manufacturer's maintenance requirements into a generic form when every manufacturer seems to do something different. This issue is particularly apparent when comparing products and maintenance requirements from different EU countries. These issues cause great difficulty in customising generic maintenance programmes as additional requirements over and above the base-line are not clearly presented. Many clubs and inspectors operate and maintain a varied fleet to accommodate different roles it is impractical to use the manufacturers requirements as this causes confusion and could lead to maintenance being missed, conversely trying to incorporate both generic and manufactures requirements can lead to over maintaining the aircraft</p> <p>Suggestion: Encourage manufacturers of simple aircraft to adopt generic maintenance approach, with specific additional items where the design warrants, that can easily be incorporated into a generic maintenance programme.</p> <p>b) Indirect Approval</p> <p>The Competent Authorities give mixed messages regarding Indirect Approval; at senior management level we are being advised to develop and apply for it, at surveyor level the message is that they will not approve any Indirect Approval.</p> <p>Suggestion Encourage Competent Authorities to devolve the management and approval of maintenance programmes and capability lists for ELA-1 aircraft to national sporting bodies or individual CAMO's with Competent Authorities only providing high level oversight.</p>
25	<p>We use a generic maintenance program matrix as basis for the individual Aircraft Maintenance Programs (AMP), as required by DK-NAA.</p> <p>Suggestion: We suggest, that the form of an AMP should be as simple as the follow-up scheme for each aircraft, revised once a year by the ARC signatory, which performs the review.</p> <p>-----</p> <p>The CAMO run by Danish Soaring Association is approved by the DK-NAA to indirect approval of Aircraft Maintenance Programs (AMP). However different staffs from the subpart G/I organisation are required to approve and revise the AMP and to perform the review and issue the Airworthiness Review Certificate (ARC). This means, that three persons are now involved in the process which, before Part M came in force, was carried out by only one person. Only a few clubs have more than one subpart G/I staff, some have no at all, and this is an unnecessary burden to the ARC signatories.</p>

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	<p>Question: What if there is only one person engaged in a CAMO organisation?</p> <p>Suggestion: We suggest, that the person from the subpart G/I organisation who revise the AMP, also may perform the review and issue an ARC. (We know this is approved by NAAs elsewhere.)</p>
30	<p>EGU is aware that many NAAs are unprepared to accept 'Generic AMP's'! This is a source of astonishment to our community as this whole principle was fought for very strongly by our members on EASA group M017. Now although there is only one Part M, the owners are now confronted in the EU with 27 different interpretations / formats of AMPs.</p> <p>Many sporting bodies in gliding, now approved as CAMO' s, currently supervise several hundred different types of relatively simple aircraft (Sailplanes and Powered Sailplanes). In reality all these airframes actually have very similar maintenance requirements and have been well served by generic maintenance practices. Some older gliders have very little in terms of recorded maintenance recommendations. To expect each one of these simple airframes to have his own tailor-made AMP(as according the some NAA officials) is an enormous paperwork overburden. Most TC holders state very little in terms of maintenance over and above the daily inspection. It only remains to incorporate a manufacturer's maintenance requirements into a generic form in the event of a particular manufacturer establishing a specific requirement.</p> <p>That said, some do apply periodic inspections, daily, 50 hour, 100 hour and 200 hour checks and light annual inspection, while others have a heavy annual inspection sometimes with a 200 hour check (say). As gliding is a seasonal activity the latter approach is strongly preferred.</p> <p><u>Suggestion</u></p> <p>2A The mechanism of a Generic Maintenance Programme G-AMP and its customisation by the CAMO is clearly described in Part-M. We need a clear confirmation of the application of this approach and guidance from EASA to NAAs on its proper use and application with an appropriate / proportionate level of audit oversight.</p> <p>2B Encourage manufacturers of simple light aircraft (ELA inc. sailplanes) to adopt common generic maintenance requirements, with specific additional items where the design warrants, that can easily be incorporated into a common generic maintenance programme.</p>
30	<p><u>Indirect Approval</u></p> <p>Many NAAs are giving mixed messages regarding CAMO's rights to manage directly their maintenance programmes (Indirect Approval). Some senior management believe such CAMO's are entitled to, and should apply for this, whereas the message from several NAA's is that they will not grant any Indirect Approval rights. It is the EGU's understanding that an established CAMO+, with an accepted and fully audited operation is entitled to apply of indirect approval status in respect of maintenance programmes, and that this request can only be declined on justifiable grounds. The role of the NAA in this basic aspect of maintenance management should be limited to high level audit and oversight.</p> <p><u>Suggestion</u></p> <p>2C The principle of devolving the management and approval of maintenance programmes and capability lists for ELA-1 aircraft to national sporting bodies or individual CAMOs by Competent Authorities should be publicly confirmed and enforced by EASA.</p>

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32	<p>we feel that the Part M regulations are too comprehensive and complex.</p> <p>Since the adoption of Part M the cost of maintaining the the 30 aircraft referred to above has increased by approximately 100%, on these aircraft the time spent on labour and administration equates to 45 minutes per flying hour, totally unsustainable and never envisaged by the manufactures.</p> <p>We suggest the maintenance regulations should follow the manufacturers recommended schedules, but allow engineers more latitude to accept on condition, particularly where aircraft are flying less than 100 hours per year.</p>
33	Generic maintenance programmes and indirect approval procedure - We are approved for the indirect approval procedure and we also use the limited contract for ower "customers" (members from the different aeroclubs)
34	<p>Generic maintenance programmes</p> <p>There are mixed views on GMPs, please see the spreadsheet. The GMP should be used to provide deviation from the manufacturer's recommended maintenance schedule where individual tasks are inappropriate or ill-considered.</p> <p>Indirect approval procedures</p> <p>Not much comment on how the maintainer is affected, see the spreadsheet. More flexibility and use of maintainer's experience and judgement should be allowed, the qualifications gained at great expense represent a valuable resource which should be tapped into</p>
35	Due to the low complexity of the aircraft in the GA the normal maintenance program has too high requirements. The requirement of a generic maintenance program approved by the NAAs for the GA should be satisfying enough. For non complex aircraft below MTOM 2730 kg, the possibility of self-declaration should be given. The indirect approval should only be possible in the controlled environment of the CAMO.
36	<p>The currently required contents and declarations of different kind of Maintenance data / Approved Data within the OMP's of some member states (use the German OMP format as an example) is in no relation of what needs to be done to keep the airworthiness of such A/C on a high level .</p> <p>The establishment , revision and control as well as the costs for the approval of such OMP's overforces the capability of the owner/operator's as well as some of the inspectors at some NAA's .</p> <p>A simple declaration to comply with any EASA AD's , NAA AD's well as Service Bulletins , issued by TCH or STC-H , signed by the owner or his / her responsible person is considered to be sufficient.</p> <p>If there is a need for declaring additional maintenance requirements or exception - due to repairs or modification requiring different maintenance – or to legally extent (recommended) TBO Times a higher level – OMP shall be used.</p> <p>For all others (no repairs , no modifications , no Major or Minor Change Issues requiring additional maintenance advice) the above mentioned variant shall be used .</p> <p>If TBO times are meant to be extended beyond the limits recommended by the TC-Holder or manufacturer of any product or life limited component a compensating action (e.g. decrease of periodic maintenance intervals from e.g. 100 hrs to 50 hrs) shall be set , EASA to define standards here.</p> <p>BUT :</p> <p>In general we strongly propose that there should be no OMP's required for non-commercial operated ELA 1 aircraft.</p>

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	Any Approved Data form the TCH or STC-H shall be considered sufficient enough.
37/70	MP for individual aircraft and operation types shall b based on generic ones or/and directly refer to manufacturers recommend MP. We have no indications of safety risks related to indirect approvals. For non complex/light aircraft (third segment above), an approval through assessment and validation by a licensed maintenance technician should be envisaged.
38	<p><i>Problem:</i></p> <ul style="list-style-type: none"> • It is time-consuming to develop AMP’s because the maintenance data does not have the same structure as for large aircrafts. MRB/MPD. • It is difficult to find the required maintenance in the documentation from TCH. It can be spread out in AMM, SB, SL, SI etc. <p><i>Proposed solution or change:</i></p> <ul style="list-style-type: none"> • Make it possible to refer to the Maintenance Data (Inspection lists) notwithstanding there is some evaluation for the specific aircraft (S/N, pre- post SB, if installed). • The AMP shall include the interval and the reference. Not necessary the specific task. • It should be enough to receive a statement from the TCH if the owners want to extend an interval. A CAMO with indirect approval may be given the privilege to approve such task in the Maintenance program.
39	<p>Generic maintenance programme and indirect approval procedures</p> <p>The content of the generic maintenance programme is not clear for the BCAA and the owner/CAMO. As a consequence the generic maintenance programme is not used.</p> <p>The indirect approval procedure has been approved in 20 % of the Belgian CAMO’s.</p> <p>The privilege is only granted after a test period of one year.</p>
40	<p>The Maintenance Programme is considered to be an important document. Whilst it is easy to see that for a complex aircraft the Maintenance Programme will be a complex document and central to the effective accomplishment of the maintenance of the aircraft, for a balloon it is just several pages of words which essentially boils down to the phrase ‘follow the manufacturer’s manual’. The requirements for detailed maintenance programmes for balloons and the necessity to get them individually approved by the authority is just an administrative burden and does nothing to improve safety.</p> <p>The maintenance requirements for all EASA balloons are virtually identical, with the annual/100hr inspection being the principal task. As such, it should not be necessary to have individually approved maintenance programmes for individual balloons, a small number of generic programmes should suffice. These may be generic by manufacturer or perhaps by type of operation (eg CAT operations may have different MELs and so have additional requirements, but the basic maintenance requirements are all the same).</p> <p>Some competent authorities currently approve such generic programmes, others insist on individual programmes for individual aircraft. There appears to be nothing within the regulations themselves that prohibit programmes being suitable for more than one aircraft, so this should presumably only require clarification within the AMC material.</p> <p>Requested Action: New AMC material should be created to specifically state that, in the case of balloons, generic maintenance programmes may be approved by the relevant National Authority, with aircraft specific maintenance programmes (if required) based on these generic programmes being developed, approved and issued by MOs or CAMOs.</p>

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42	Danish Powered Flying Union will like to highlight some national rules that in our opinion interfere with Part-M. Since 1999 a fixed pitch propeller shall be overhauled each 10 calendar year, if the manufacturer has not required tighter intervals (this is the case with Sensenich DM series fixed propellers have 2000 h between overhauls). This requirement is published only as a circular (DK AIC39/99) not as an aviation act. Aircraft Maintenance Manual chapter 5 prescribes recommendations from manufacturer. NAA has made these recommendations mandatory. Part-M prescribes a maintenance programme to be worked out according to the use of each individual aircraft.
43	Point of View of an aviation expert. The concept of an approved CA programme for every aircraft is sound, but it should be provided by the manufacturer, not individually discussed and agreed for every individual aeroplane by the operator (or, more frequently, by his CA shop).
43	Point of View of a maintenance shop Our cooperation with ENAC has been rather good : single maintenance programmes have been prepared by us and approved by ENAC without too much difficulty. It is, however to be said that the Italian authority did not provide us (as the Germans did) with a standard format of what was required. It is also to be said that many of our customers complain for some additional maintenance operation requested by the new programmes ... made on the basis of the manufacturers "recommended" maintenance programmes where few of the operations and limitations are simply a matter of U.S. legal matters rather than technicals.
43	Point of View of an Aero Club w. flight school We have never had too many problems with EASA that replies quickly to our questions when contacted ... we had, however, some problems with our CAA staff because it appears that every fonctionnaire have, and applies, his own interpretation of the rules. Sometimes, in addition, we are asked to perform maintenance operations that seems to be created for airlines rather than for small planes ... and this add little to safety.
43	Point of View of a normal Owner-operator of a private plane. The idea of an approved maintenance programs is not bad but a "normal person" like I am is unable to produce a maintenance programme and have it approved. I had to ask a CAMO, sign a contract and pay a lot of money ... that I did not have to pay before.
45	Ultramagic has the indirect approval privilege among their faculties. The tool is very useful and has been used and accepted even for balloons registered out of Spain. However, it is not recognized in a few Spanish CAA Local Offices. PROPOSAL Urge Spanish authorities to uniform the criteria on this.
45	Most of the content of the Maintenance Programs (at least for balloons) is useless to the eyes of the pilot and the maintenance organization. PROPOSAL Provide a good example of how a Hot Air Balloon Maintenance Program should look like, according to the eyes of EASA. We were told in past EASA-meetings that a single page could be enough, but in practice we need a 15 page document to get it approved in our country. Ultramagic is open to provide help on this.
46	Part M does not set clearly enough, whether the Service Bulletines issued by TC / STC holders and designated as "Mandatory" without being supported by AD of EASA, FAA or other competent authority are regarded as mandatory maintenance data and must be followed. They are not listed in M.A.301(5), but they are requested by M.A.302(d)ii) as a source for aircraft maintenance program and by M.A.401(b)3 as mandatory maintenance data.

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47	<p>LBA/T5:</p> <p>Die Forderung nach einem gen. IHP für nichtgewerblich betriebene Lfz. bis zu einem MTOM von 5.700 kg (2.730 kg geht auch) sollte komplett gestrichen werden. Die Instandhaltung hat nach den vom Halter der MZ herausgegebenen Unterlagen zu erfolgen. Nur evtl. vorgeschlagene Abweichungen sind zu genehmigen. Die IHP für diese Lfz. werden in der Regel nicht von den Haltern beachtet und vor allem wird kein Sinn darin gesehen. Außerdem wird dieser Punkt von den NAA unterschiedlich behandelt.</p> <p>Delete requirement for MP for non-commercially operated aircraft up to 5700kg MTOM (or 2730kg). Maintenance to be done in accordance with TCH data. Only deviations from such data are to be approved. For these aircraft, MPs are generally not complied with by the owners and they are seen as unnecessary. Besides tis issue is dealt with differently by different NAAs.</p> <p>Das indirekte Genehmigungsverfahren wird von den Haltern nicht genug genutzt, weil es zu einer zusätzlichen finanziellen Belastung führt. Zum größten Teil sind die Gebühren bei der Behörde für die direkte Gen. niedriger als die Kosten, die an eine CAMO zu bezahlen sind.</p> <p>Indirect approval is generally not used by owners, as it generates additional costs. In the majority of cases the costs are lower when the authority approves the programme compared to CAMO indirect approval.</p> <p>Auch der eingeschränkte Vertrag mit einer CAMO wird nicht genutzt. Dieses Verfahren ist in den AMC nicht beschrieben und führt immer wieder zu Auslegungsschwierigkeiten. Vor allem das beim eingeschränkten Vertrag die CAMO für die weitere Aufsicht der Eignung des IHP sorgen soll. (AMC M.A.201(e)).</p> <p>Also, the limited contract with a CAMO is not used. As this is described in an AMC it repeatedly leads to interpretation problems. This concerns in particular the need for the CAMO in the case of a limited contract to continue to monitor continued suitability of the MP (AMC M.A.201(e)).</p> <p>Zusammengefasst ist zu sagen, dass das indirekte Genehmigungsverfahren Bereich der Zuständigkeit vom LBA nur eingeschränkt angewendet wird und wenn ja, mit keinen guten Erfahrungen. Die Überwachung der Verfahren und der Programme sind durch den Betriebsprüfer einer CAMO praktisch kaum zu überwachen. In conclusion, within the remit of LBA the indirect approval procedure is of limited application, if used, there is no positive experience. In practice, it is almost impossible for the CAMOs to monitor the programmes.</p> <p>Falls man aber an der Forderung nach IHP für alle festhalten will, muss es Abstufungen in der Tiefe und dem Umfang von IHP geben. Dazu bieten sich standardisierte Vorgaben (Generic AMP) an, die aber von der EASA zu erarbeiten sind und für alle zugänglich sind bzw. verbindlich werden. Hier gibt es erhebliche Unterschiede zwischen den NAA. Should the requirement for an MP be maintained it would need to be proportionate in depth and scope. This could be achieved by means of standardised MPs to be defined by EASA (generic MPs) and made generally available / mandatory. In this area significant differences exist between authorities.</p> <p>Der momentan veröffentlichte Anhang I zum AMC M.A.302 und M.B.301 (b), der bei den Standardisation Audits als Basis dient, ist für die nichtgewerbliche Luftfahrt und die dort genutzten LFZ nicht anwendbar. The current version of appendix I to AMC M.A.302 and M.B.301 (b), which serve as a basis for standardisation audits, are not appropriate to non-commercial aviation and to a/c used non-commercially.</p>
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Maintenance programme general - Generic maintenance programmes and indirect approval procedures

48

Situation:

Die Vorgaben für die Instandhaltungsprogramme für ELA-Luftfahrzeuge der Allgemeinen Luftfahrt, welche nicht als technisch komplizierte Luftfahrzeuge definiert sind (nachfolgend als einfache Luftfahrzeuge bezeichnet), bringen dem Halter einen erheblichen Mehraufwand an Arbeit und Kosten, ohne einen Gewinn an Sicherheit.

Requirements for the MP for aircraft such as ELA that are defined as not technically complex create significant additional work and costs for the owner, without any safety benefit.

Einfache Luftfahrzeuge werden nach den gültigen Bauvorschriften durch die Hersteller inklusive der zugehörigen Wartungsunterlagen ausgeliefert. Diese Wartungsunterlagen (Wartungshandbuch, Lebenslaufakte ...) beinhalten alle Punkte, welche der Part-M von einem Instandhaltungsprogramm erfordert. Anders als bei komplexen Luftfahrzeugen, für die das Instandhaltungsprogramm durchaus sinnvoll sein kann, ist die Ausrüstung überschaubar. Alle Änderungen der Ausrüstung werden in den Wartungsunterlagen dokumentiert. Die Forderung nach einem (zusätzlichen) Instandhaltungsprogramm gemäß Part-M bedeutet ein bloßes Kopieren vorhandener Werte und wird dadurch als unnötige Belastung aufgefasst, die zusätzliche Arbeit ohne Sicherheitsgewinn bedeutet.

Simple aircraft are delivered by the manufacturer with the corresponding maintenance documentation, which contain all necessary points that a Part-M MP should address. Contrary to complex aircraft, where the MP does make sense, equipment on simple aircraft remains limited. All changes to the equipment are documented. The requirement of an MP in accordance with Part-M will only consist in copying applicable material and therefore is seen as an unnecessary burden, without safety benefit.

Hinzu kommt die Tatsache, dass nach unseren Erkenntnissen die Regelungen des Part-M hinsichtlich der Instandhaltungsprogramme für einfache Luftfahrzeuge durch unterschiedliche nationale Behörden differenziert angewendet werden. Damit ist der erwünschte Effekt einer europäischen Standardisierung in Frage gestellt.

In addition there is the fact that based on our knowledge the Part-M requirements in the area of MPs for simple aircraft are implemented quite diversely by different NAAs. The intended effect of European standardisation is therefore questionable.

Letzter Aspekt sind die verbundenen Kosten. Es wird nicht akzeptiert, dass für jede Änderung eines Instandhaltungsprogrammes, ob Adressänderung oder Einarbeitung einer TM, welche schon in die Wartungsunterlagen eingearbeitet wird, eine erneute kostenpflichtige Genehmigung fällig ist. Last point: is about costs – it is not accepted that each and every change, be it in address or inclusion of a new task will generate costs for the approval.

In mehreren Ländern wurden in den vergangenen Jahren generische Programme in Form von „Standardinstandhaltungsprogrammen“ verwendet. Diese waren probates Mittel als Grundlage für die Instandhaltung, weil sie den Halter per Erklärung dazu verpflichteten, alle gültigen Wartungs- und Instandhaltungsanweisungen der Hersteller und Behörden einzuhalten. Die durch Standardisierungsaudits festgestellte Nicht-Übereinstimmung mit M.A.802 darf nicht dazu führen, dass im Rahmen der Neuregulierung der Allgemeinen Luftfahrt nicht erneut über erhebliche Vereinfachungen für den ELA-Bereich nachgedacht wird.

In several member states generic programmes / standard MPs were used in the past years as an accepted method to oblige the owner to commit to implementing all applicable instructions from the manufacturer and the authorities. The standardisation finding related to M.A.802 shall not prevent us

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from reconsidering possibilities for simplification in the area of ELA aircraft.

Vorschlag:

Proposal:

- a) Grundsätzlich besteht keine Notwendigkeit für ein gesondertes IHP für die Kategorie der ELA-Luftfahrzeuge.

As a matter of principle there is no need for a separate MP for ELA aircraft.

- b) Sollte die EASA dieser Forderung nicht folgen gilt:

Should EASA not consider this request:

IHP werden inhaltlich auf das Nötigste begrenzt.

Die Arbeit mit Querverweisen auf bestehende Übersichten und Listen (z.B. Liste der gültigen TM in der Lebenslaufakte ...) ist zulässig. Änderungen dieser Listen bedürfen keiner Genehmigung. Es obliegt dem Halter, dem ARS im Rahmen der Lufttüchtigkeitsfolgeprüfung die aktuellen Unterlagen zur Verfügung zu stellen. Neue Luftfahrzeuge werden grundsätzlich mit einem Instandhaltungsprogramm als Bestandteil der Wartungsunterlagen des Herstellers ausgeliefert. Das Instandhaltungsprogramm gilt als genehmigt, wenn das Luftfahrzeug seine behördliche Zulassung erhält. Instandhaltungsprogramme gebrauchter und älterer Luftfahrzeuge können generische Programme sein, soweit diese durch die Hersteller oder deren Musterbetreuer zur Verfügung gestellt werden. Werden bestehende „Standardkonfigurationen“ (ohne Änderung der Ausrüstung nach Herstellerangaben) übernommen, gelten diese generischen Programme per Erklärung als genehmigt.

Die indirekte Genehmigung für die Genehmigung von Änderungen in Instandhaltungsprogrammen muss weiter gefasst und vereinfacht werden. Diese Genehmigung für einfache Luftfahrzeuge kann durch einem Prüfer mit entsprechender Prüflizenz für das Luftfahrzeug erfolgen.

Reduce the MP to its strict minimum. Accept working with cross-references. Do not subject changes to approval. It is the responsibility of the owner/operator to provide up to date documentation to the airworthiness review staff. For the AR. New aircraft are always delivered with an MP as part of the manufacturer's maintenance instructions. This MP is considered authorised when the aircraft receives its CofA. For used or older aircraft it should be possible to use generic MPs, if made available by manufacturers/TC holders. For standard configurations these generic programmes should only be subject to self-declaration (no separate approval). The scope of indirect approval of the MP should be broadened and simplified. It should be possible for appropriately qualified certifying staff to approve MPs for simple aircraft.

49 **Maintenance Programme for General Aviation:** usually, tasks included in the maintenance programmes of general aviation aircraft are a "copy" of the tasks included in TCH maintenance data (no additional tasks, no interval escalation, etc.).

Proposal: for general aviation, when there are not differences to the tasks included in TCH maintenance data, to allow to include the reference to the TCH documentation, specifying Edition /revision, instead of the list of tasks.

49 **Aircraft Maintenance Programme validity:** when a Non CAT aircraft owner or operator breaks the contract with one CAMO and establishes a new contract

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	<p>with another CAMO or when a private owner breaks the contract with one CAMO and does not establish a new one, we understand that the approved maintenance programme <u>loses its validity</u> since the statement is signed by the first CAMO and the first CAMO could have some privileges that the new one or the private owner doesn't have automatically (i.e. escalation procedures).</p> <p>Problem: during the approval process of the new maintenance programme, aircraft could stay landed without changing of owner or operator.</p>
52	<p>1. Format of the rules</p> <p>General ok, especially the consolidated versions published on the EASA Homepage.</p> <p>The timeframe to take Revisions into force is too short.</p> <p>The indent of the rule in connection with AMC is sometimes quite confusing. See the following example of a query from an M-F/M-G organisation to EASA:</p> <p>M.A.707 (a) requires that airworthiness review staff holds a position within the approved organisation with appropriate responsibilities; this requirement is common to airworthiness review staff of any category of aircraft. (Please refer to M.A 707 (a) 1 (d), and M.A. 707 (a) 2 (d))</p> <p>AMC M.A. 707 (a) 5 explains the meaning of “appropriate responsibilities”: the airworthiness review staff should have a position in the organisation <i>independent from the airworthiness management process</i>,</p> <p>OR</p> <p>with <i>overall authority</i> on the airworthiness management process of complete aircraft.</p> <p>This means that there are two independent ways of meeting the requirement of “appropriate responsibilities”:</p> <p>WAY 1: Independence from the airworthiness management process</p> <p>AMC M.A. 707 (a) 5 explains: Independence from the airworthiness management process may be achieved, among other ways, by:</p> <ul style="list-style-type: none"> ☐☐ 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 (other than maintenance tasks performed during the physical survey of the aircraft or performed as a result of findings discovered during such physical survey) to avoid possible conflict of interests. ☐☐ Nominating as airworthiness review staff personnel from the Quality Department of the continuing airworthiness management organization. <p>WAY 2: OVERALL AUTHORITY</p> <p>AMC M.A. 707 (a) 5 explains: Overall authority on the airworthiness management process of complete aircraft may be achieved, among other ways, by:</p> <ul style="list-style-type: none"> ☐☐ Nominating as airworthiness review staff the Accountable Manager or the Maintenance Postholder. ☐☐ Being authorised 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 organisations, this person has always overall authority. This means that this person can be nominated as airworthiness review

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	<p>staff.</p> <p>A person nominated as airworthiness review staff that is independent from the airworthiness management process meets the requirement of “appropriate responsibilities”, this person is not required to have overall authority. And vice versa, a person who has overall authority on the airworthiness management process meets the requirement of “appropriate responsibilities” and it is not required to have independence from the airworthiness management process.</p> <p>The paragraph you have highlighted:</p> <ul style="list-style-type: none"> • 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 (other than maintenance tasks performed during the physical survey of the aircraft or performed as a result of findings discovered during such physical survey) to avoid possible conflict of interests. <p>A person working as airworthiness review staff and certifying staff, does not meet the requirement of appropriate responsibilities by means of WAY 1: Independence from the airworthiness management process for the aircrafts he/she has maintained.</p> <p>BUT this person may meet the requirement of appropriate responsibility by having overall authority (WAY2), the person may be the maintenance postholder or accountable manager of the organisation in addition to work as certifying staff and airworthiness review staff. I hope this clarifies your concerns.</p>
52	<p>Maintenance Programs for such a simple aircraft should not be a must as far as the maintenance is performed according the relevant manufacturer (TC-holders) Maintenance Manual. A Statement to perform the maintenance according Manufacturers, NAAs and EASA documentation would reduce the workload of continuously revising the maintenance programmes.</p>
53	<p>Generic maintenance programmes, M.A.302/708/709</p> <p>Major comments</p> <p>Generic maintenance programmes are well accepted, not all opportunities are met yet in some member states.</p> <p>Our proposal</p> <p>We propose a review of the relevant paragraphs to address the special need of GA and offer our participation and we invite the Agency to encourage manufacturers to adopt common generic maintenance programmes.</p> <p>Justification</p> <p>There is still some harmonisation necessary, standardisation is not yet reached, a level playing field equally not.</p> <p>Remarks</p> <p>Some are still too complex, especially for sailplanes. As simple as possible, at least for aircraft up to ELA 1, they should be.</p>
53	<p>Indirect approval procedures</p> <p>Major comments</p> <p>The indirect approval procedure is well accepted in some member states, but not in all of them. It removes workload from the NAA. Some NAA apply very particular definitions for what an “indirect approval” is.</p> <p>Our proposal</p>

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	<p>We propose to the Agency to discuss this topic within AGNA and to exercise some pressure on the NAA not willing to act according to the provisions. Please clarify the content of the term and add it to the definitions list in Article 2.</p> <p>Justification</p> <p>There is still some harmonisation necessary, standardisation is not yet reached, a level playing field equally not. The meaning of “indirect approval” is used differently within Part-M, the one in M.A.604 is not identical to the one’s used in other paragraphs.</p> <p>Remarks</p> <p>We got comments asking us to propose the granting of the privilege also to approved maintenance organisations, not only to CAMO. We also looked at M.A.201(e)(ii) and are of the opinion that some clarification is needed.</p>
54	<p>Paragraph No: M.A.302(d)</p> <p>Comment:</p> <p>In the field of General Aviation further guidance is needed to ensure that the status of the various types of information claiming to form part of the Instructions for Continuing Airworthiness is clearly and uniformly understood.</p> <p>Justification:</p> <p>Standardisation, clarity and safety.</p>
54	<p>Paragraph No: M.A.302(g)</p> <p>Comment:</p> <p>The CAA would like see guidance material being developed that sets out a process a CAMO may use to evaluate whether non-mandatory instructions ought to be incorporated into an approved maintenance programme. The material should ensure that any decision taken is properly recorded and is visible, accountable and justified.</p> <p>Justification:</p> <p>The regulation provides in M.A.302(g) for periodic reviews to be performed; however there is insufficient guidance on how these reviews may be conducted for aircraft not subject to the reliability centred maintenance concept.</p>
55	<p>The obligatory introduction of an aircraft maintenance programme (AMP) for each single aircraft by Part-M has cause an huge amount of unnecessary paper work in the General Aviation communities and still does. First it has to be observed that for small aircraft – sailplanes being an excellent example – the AMP is completely unnecessary in most cases anyway. Sailplanes have to be approved according to CS-22 (formerly JAR-22) in Europe and this airworthiness code already requires that the manufacture supplies sufficient maintenance data with his product which has to contain practically all requirements of an AMP according to Part-M.</p> <p>Beside the CS-22 / JAR-22 ample proof of this fact may be found in the truth that it was possible to certify /produce and operate literally tens of thousands sailplanes in Europe for decades without the necessity of a document like the AMP!</p> <p>...and we still wait for any feedback today that one single person claims earnestly that the now introduced AMP may have improved the safety level of</p>

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sailplane operations in Europe...

When looking into operations of larger and more complex aircraft where different avionic and other subsystems may have much larger impact upon operation and maintenance it might be that a document like the AMP is a must. But as said before the AMP is considered by aircraft owners and by certifying staff mostly as a pain and not as something useful.

First reason for this scorn is the fact that despite harmonised regulations (Part-M) the application is not comparable even within one member state let alone between different member states. Here the structure of the different competent authorities and sometimes centralized and sometimes decentralized structures lead to uneven use and application of this rule. This then leads to the sad fact that an AMP acceptable in one instance might be not acceptable at all even for a totally identical case.

Next reason for hating the AMP is the associated cost in manpower and money. Usually it needs a high qualified person (e.g. working as certifying staff in a CAMO) to support drafting the AMP. Next the competent authorities will ask for fees to approve the AMP. This might be taking several iterations until approval is granted. And then even something technically not relevant change like a change of address might spark the next AMP approval process.

The way pilot-owner tasks have to be defined / listed in the AMP has led to lots of questions / frustration and friction. Neither EASA nor the competent authorities seem to understand that maintenance on a sailplane is often comparable to maintenance of a bicycle: it is typically seldom organised in fixed intervals, it is done on a "if needed" basis and the associated tasks are mostly simple and possible for the pilot-owner. Nevertheless it would be a pain trying to describe all possible bicycle maintenance tasks in the way as Part-M asks it to do in an AMP...!

One hope in the General Aviation community was the approach of a few national authorities to introduce a generic AMP – often also called a standard AMP. Here the main concept was to declare the existing aircraft documentation (the maintenance manual and associated documents like regarding national regulations) as the AMP by saying essentially "please use this documents during maintenance". In case of aircraft without modifications affecting airworthiness this would have been a pragmatic effort which would have enabled those aircraft to be operated like before Part-M (i.e. without any need for an individually drafted and approved AMP).

What happened?

The EASA standardisations procedures have asked those national authorities to discontinue this way of applying Part-M. The only reason given was that it would be not according to Part-M requirements and all arguing that no one (neither the national authority nor the nearly 20.000 aircraft being operated and maintained with such a standard AMP) had a problem with it was accepted by EASA to change this decision. This single event has destroyed the believe that the S in EASA really stands for Safety but perhaps means only Standardisation for literally thousands of persons involved in General Aviation.

On possible way out would be to introduce / amend regulation so that approval of an AMP is only asked for aircraft if modifications / repairs cause additional documents / procedures beside the existing certified maintenance manuals.

Such regulation could be limited to small aircraft (e.g. by limiting it to ELA aircraft).

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This would lead to a much sought after streamlining of paperwork and freeing persons like high qualified maintenance staff members to concentrate again more on the technical aspects of maintenance instead of the paperwork.

Another possibility to ease the burden of the AMP approval process would be to use the indirect approval process on a wider basis. Today the national authorities still remain involved in each AMP approval – even if the aircraft is operated in a controlled environment. It would be much easier to process all the required approvals if established organisations with proven knowledge regarding maintenance could approve AMP (even in a non-controlled environment. Such organisations could be the air sport associations or the manufacturers (of course only for aircraft which have been manufactured by them).

57	<p>The rule and associated guidance concerning the content of the MP are detailed and have led the French Authority to require complete documents describing all maintenance tasks applicable to the aircraft (EASA has also produced a model of document with the same level of details: GA aircraft maintenance programme rev 2 - 114 pages)</p> <p>In practice, it appears that some European Authorities have accepted MPs only quoting the applicable TC holder instructions references (as a consequence, they may be limited to 4 pages) or even one page MPs limited to a commitment to apply the applicable TCH/STCH instructions (not even identifying these instructions).</p> <p><i>See letter sent by GIPAG to Mr. Goudou on 23 May 2011</i></p> <p>This is a major standardisation issue. In order to ensure equal treatment in this field, we believe that EASA should confirm what is acceptable for the content of the MP.</p> <p>- Instructions applicable for the development of the MP (3, 4)</p> <ul style="list-style-type: none"> o ICA applicable for equipment <p>Some guidance is needed to identify the equipment ICA to be taken into account in the development of PE.</p> <ul style="list-style-type: none"> ☐ Should only the instructions identified by the aircraft/engine/propeller TC holder be applicable? or any equipment manufacturer instructions? (as suggested by AMC M.A.302(d)(1))? Or only ETSO equipment manufacturer instructions? ☐ Should a difference be made between “mandatory” and “recommended” instructions <p><i>See letter sent by GIPAG to Mr. Goudou on 23 May 2011</i></p> <ul style="list-style-type: none"> o Harmonisation of national requirements <p>Many Authorities have defined specific national requirements to be included in the MP. We believe that EASA should evaluate the need to keep these requirements and take actions to ensure they are either deleted or harmonised.</p> <p>Note: This review should take into account that many TCH instructions assumed existence of these national requirements and therefore do not contain corresponding instructions (or only the reference “see NR”). Actually, the provisions of M.A.302(d)(i) should be limited to cover specific situations limited to an aircraft SN concerned. Any general instruction should be issued at EASA level.</p> <ul style="list-style-type: none"> o Support of EASA related to the approval of alternative instructions
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	Since the national authorities have lost their “certification competences”, we believe it would be useful to have the support of EASA PCM when evaluating the acceptability of alternative maintenance instructions proposed by the operator (in accordance with M.A.302(d)(iii)). This evaluation could also permit to guaranty equal treatment in different countries (example: acceptability of tasks alternative to engine/propeller overhaul)
59	I am the president of the Soaring Club of Akureyri (SFA) in Iceland. The club has had a long history since 1937 and numerous commercial pilots have taken to the skies for the first time in our club. All work is done by volunteers and the members pay for their flights to cover expenses like insurance, gasoline, spare parts etc. This formula has worked quite well in our 74 years of existence but I fear the extra burden laid by the EASA regulations might be the final straw if implemented as drafted. A year ago we had to ground our fleet of three gliders for between one and two months during the extremely short Icelandic summer season while we struggled to prepare AMP documentation. Instructions on how to prepare the maintenance programs were scarce and we had to send in our suggestions a few times before they were accepted, this had to be done almost by guesswork on our half since instructions were limited. Why on earth could an AMP not be prepared for each common type of glider only once for all Europe and then sent to the owners is beyond my comprehension. This raises questions on what the purpose of the maintenance program is since ill thought through regulations will not ensure common practices throughout Europe as any local authority has it in it's hand to interpret an AMP by it's own whim. To add insult to injury each iteration we sent the AMP in to CAA resulted in hefty bills that they charged us for reading over the maintenance program.
60	<p>There is a need for drastic simplification, i.e. deletion, of Maintenance Programmes !</p> <p>Beyond the difference that may exist in the format and the content of MPs between Member States, that is unacceptable (<i>see letter dated 23MAY2011 from GIPAG to P. Goudou</i>), GIPAG members don't think that copying very detailed information contained in manufacturers Maintenance Manuals in a 16 pages and 6 sections' paper brings any added-safety.</p> <p>Indeed, the manufacturer is the most able to define the way his aircraft should be maintained. Regarding a given aircraft specificities beyond those related to its type, defining the specific tasks that may or may not be performed should be the job of the CAMO (or the job of the Part M/F or 145 company – if we consider as we suggested above that they don't need to be approved CAMO on top of their maintenance organisations approval).</p> <p>GIPAG asks for more empowerment of professionals, as a privilege linked to their certificates. Indeed, professionals are currently certified, but also drastically controlled and constrained by administrative tasks in their day-to-day activities not bringing any added safety. On the other side, we recognize that more empowerment would also mean that the initial approval of an organization may be more stringent if required, and audits may be stricter as well as the sanctions more persuasive.</p> <p>As for Generic MPs, this part of the regulation is unfortunately not widely used because of the fees that are raised to add an aircraft type on a rating (cf. above), even if no aircraft of this type is currently managed by the organisation. These high (and unjustified) fees prevent the great majority of companies from adding an aircraft to their ratings whereas they have all the required documentation, personnel and skills.</p> <p>Therefore, our suggestion would be the deletion of the concept of Maintenance Programmes.</p>
61	The mandatory requirement of Part-M to have AMP (aircraft maintenance programme) for each aircraft is causing a huge amount of unnecessary paper work. The need for AMP is questionable for simple planes like LSA or gliders, all necessary information are already included in Maintenance manuals (MM). According to Part-M, non complex maintenance tasks can be conducted by pilot/owner. A general description what is allowed is given in Part-M Appendix VIII. There are also some remarks what non complex means, for example, any maintenance task without the requirement of special tools. From this point a 100h check of Rotax engine will be a complex maintenance task. But if the manufacturer considers the 100h check of the airframe in accordance to Appendix VIII, pilot/owner will be able to perform this check. Scope of Pilot/owner maintenance has to be approved with the AMP. Best practice should be

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	<p>Maintenance manual with listed personnel qualification for each maintenance task in accordance to Part-M, Appendix VIII, approved by the Authority. Some of our LSA manufacturers already have this in the LSA manual where they divide task specific qualification by pilot/owner and LSA repairman. Then we can link the scope of pilot/owner maintenance in the maintenance program to the MM.</p> <p>Functionable and real suitable maintenance programs to carry out specific proper maintenance for one single aircraft can't be generic! However there should be relieves for simple aircrafts. 1702/2003 should oblige TC-holder to provide a template of maintenance programme in their maintenance manual. The TC-Holder/Manufacturer should know best about how to make maintenance on their product, therefore approved MM should be considered as AMP for purpose of Part-M. CAMOs should have the privilege to issue programmes for small aircrafts in general without controlled environment.</p>
62	<p>In addition to the above, GAMA has been working with IAOPA Europe concerning some significant issues that GA operators have had in Europe. Many aircraft have been grounded resulting from a "new" interpretation and NAA application of regulatory requirements for maintenance in which all Instructions for Continued Airworthiness (ICA) information and updates thereto (such as service bulletins) are essentially being deemed mandatory. An aircraft certification basis determines whether ICA is required for that aircraft and therefore there is no regulatory ICA if not included in the cert basis. Any ICA and service instructions provided by the type certificate holder are simply advisory information on acceptable methods to support airworthiness and continued operational safety. Furthermore, EASA regulation (part 21 and JAR/CS-23, which are same as FAA) clearly state that when ICA is included in the cert basis (i.e. 23.1529), all mandatory inspections and tasks must be included in the airworthiness limitations section (ALS) (Basic Regulation Annex I 1.d.4) and that only the ALS is part of type design. Therefore, any reference to ICA on the type certificate data sheet (TCDS) as a condition or limitation of the type certificate must be limited only to the ALS and only for the specific make/model which includes it in the cert basis (not all models on the TCDS).</p> <p>There have been many challenges and negative impacts upon GA operators as NAAs in Europe transition from their state maintenance requirements to EASA part M. Although there are numerous examples in Part M that makes reference to documents such as service bulletins being non-mandatory, many airplanes have been grounded to an NAA interpretation of EASA Part M that every task and inspection schedule listed in a manufacturer's ICA is mandatory. This situation is a major disconnect between regulatory safety requirements for manufacturers in the design and certification of aircraft and the provision of airworthiness information and regulatory requirements for the operation and maintenance of aircraft with significant impact upon operators. Documents such as Service Bulletins, Service letters and Service Instructions, etc. should be understood as recommended practices only and should not be considered mandatory maintenance actions such as those contained in the ALS. GAMA respectfully requests that EASA make this clarification in applicable sections of Part M to help prevent NAAs from misinterpreting these recommendations as mandatory. GAMA appreciates your attention to these comments and considers this to be an important opportunity for industry to improve maintenance rules in Europe.</p>
63	<p>The maintenance facilities in Iceland that service simple GA aircraft are usually single airmech service facilities. Prior to the temporary expansion of the ELA-1 class to 1.200 kg, owners of EASA TC GA aircraft between 1.000 and 1.200 kg were looking at a permanent grounding of their aircraft due to the onerous and expensive requirements of the Part-M regulations. The extension to 1.200 kg does not save all. A case in point are the PZL-101 Gawron and the PZL-104 Wilga. These aircraft share the same engine, engine accessories, basic wing design and various instrumentation. The Gawron is an Annex II aircraft while the Wilga is an EASA TC aircraft. To make matters worse, the Wilga, the lighter of the two, has a MTOW of 1.300 kg thus falling outside the temporary extension of the ELA-1 class. This, once again, begs the question: Why are the maintenance requirements of SEP aircraft classified by an arbitrary weight classification instead of what they are, single engine piston?</p>
64	<p>Experience has shown that countries have very different approach to this matter, as the simple single page document applied in Germany has been sufficient until now. Icelandic aircrafts were simply grounded in 2010 unless they had a registration specific programme approved. Now Germany is slowly</p>

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	making those programmes for each aircraft (time was given until 2013). This shows that adaption is and probably will be dependent of individuals working in each CAA. Therefore much better guidance material is needed for the programmes. If EASA thinks maintenance documentation issued by type approved manufacturer is insufficient for the safe maintenance of aircraft, then EASA should maybe supply the maintenance programmes.
65	<p>Zunächst vorweg die simple Tatsache: „Maintenance Programmes“ sind in der (kleinen) Allgemeinen Luftfahrt vollständig überflüssig und schlimmstenfalls beeinflussen sie die Flugsicherheit negativ. Es wurden zehntausende von kleinen Flugzeugen jahrzehntelang ohne diese bürokratische Hürde gewartet und es gibt keinen einzigen Unfall, der in dieser Zeit durch ein „Maintenance Program“ hätte verhindert werden können. Aus diesem Wissen heraus haben verschiedene nationale Behörden und Organisationen „Standard-Instandhaltungsprogramme“ eingeführt, die die Forderungen von Teil-M erfüllten und wenigstens mit einem minimalen Aufwand erstellt und genehmigt werden konnten. Die hatten zwar auch keinen Nutzen für die Flugsicherheit, aber sie haben wenigstens nicht sonderlich gestört und waren preiswert zu erstellen. Durch seltsame „Standardisierungsbemühungen“ der EASA (die dazu führen, daß die Instandhaltungsprogramme (IHPs) umfangreicher werden und sich von Land zu Land noch weiter unterscheiden) müssen diese einfachen IHPs durch komplexere Dokumente ersetzt werden. Bei 20.000 Luftfahrzeugen in Deutschland kann man selbst bei sehr konservativer Schätzung von einem Aufwand von mindestens 4.000.000 Euro für die erstmalige Erstellung und Genehmigung dieser IHPs ausgehen. Mit weiteren Folgekosten bei jeder Änderung.</p> <p style="background-color: #00FF00;">Preliminary remark: in the lower segment of GA MPs are absolutely superfluous and in the worst case they have a negative impact on –flight safety. For many years thousands of smaller aircraft were maintained without any MP and no single accident can be reported where the existence of an MP could have prevented it. This lead a number of national authorities to develop standard MPs to meet the requirements of Part-M with minimal effort for the definition and approval. These did not have any benefit in terms of safety but at least they did not do any harm and were not expensive to establish. Through some strange standardisation efforts by the Agency (that lead to complexify the MP and to increase differences in implementation between member states) all simple MP must be replaced by more complex documents. With 20.000 aircraft in Germany even with a very conservative estimation we may expect additional costs amounting to 4.000.000 € for one-time establishment and approval of the MP, plus additional costs for each amendment.</p> <p>Mit den summierten Kosten könnte man innerhalb von 10 Jahren z.B. die komplette Flotte mit FLARM Geräten ausstatten, womit tatsächlich einige Menschenleben gerettet werden könnten (siehe z.B. der Unfall in Zell am See am 28.08.2011).</p> <p>Da man auch Geld zur Verbesserung der Flugsicherheit nur einmal ausgeben kann, sollten – wenn schon die Piloten und Luftfahrzeughalter mit Kosten belastet werden – die Regelungen dort getroffen werden, wo mit geringstem Aufwand an Mitteln ein maximaler Nutzen für die Flugsicherheit erzielt werden kann. IHPs erzeugen (in der kleinen Luftfahrt) überhaupt keinen Nutzen, sondern ausschließlich Bürokratiekosten. Unter dem Gesichtspunkt der Sicherheit des Luftverkehrs sind sie daher umgehend abzuschaffen. Schlimmer noch, IHPs zusammen mit der absurden Regelung der Wartung außerhalb von Luftfahrttechnischen Betrieben, sorgen dafür, daß Halter von Ihnen selbst für sinnvoll erkannte Instandhaltungs- oder Änderungsmaßnahmen nicht durchführen, weil sie Angst haben das nicht mehr zu dürfen, obwohl sie diese Tätigkeiten (unter sinnvollerer gesetzlichen Regelungen) teils Jahrzehnte lang ausgeführt haben. Ebenso idiotisch ist, daß die IHPs – zumindest in Deutschland – in mehr als 90% ihres Textes nichts anderes tun, als Verordnungen und AMC-Material (Aufgaben der Pilot/Halter-Wartung) mehr oder minder wörtlich zu zitieren. Sieht aus, als ob Behörden da prüfen wollen, ob die Halter wie bei einem Diktat fehlerfrei abschreiben können...</p>

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	<p>The sum of these costs would be enough to install FLARM on the whole fleet within the next 10 years, which would indeed have the potential to save lives (see also accident occurred in Zell am See on 28/08/2011).¹</p> <p>As you can spend the money only once rules should apply in those areas where the best cost- benefit ratio can be achieved in terms of air safety. MPs do not generate any benefit (as far as small aviation is concerned) but create only bureaucratic burden. Therefore, with regard to flight safety the MP should be abolished without delay. Worse, the combination of MPs with the possibility to have aircraft maintained outside of an approved organisation leads to the absurd situation where aircraft owners are reluctant to carry out certain maintenance actions or modifications they deem appropriate, because they are afraid that they are no longer entitled to perform them, although this has been the case under previously applicable rules for several decades. It is equally idiotic that at least in Germany, for the MP more than 90% of the text is copied more or less verbally from the AMC material (tasks of the pilot/owner), so it looks like authorities wanted to check of the owner can copy a text without mistakes...</p> <p>Eine „indirect approval“ ist da völlig witzlos, weil die Prozedur am Grundproblem vollständig vorbeigeht und lediglich eine weitere Bürokratieebene einzieht. Einen komplexen Prozeß durch hinzufügen weiterer Komplexität verbessern zu wollen dürfte fast nie funktionieren.</p> <p>Indirect approval does not add anything, as this proceeding is not addressing at all the real problem, it only constitutes an additional bureaucratic layer. Improving a complex process by adding more complexity will almost never work.</p>
66	<p>The first difficulties with Part-M occurred with the preparation of AMP (Aircraft Maintenance Programmes). No meetings, informational material or courses could be obtained from the Icelandic CAA on how to fill in and prepare the AMP. The club obtained a valid AMP from Denmark and Sweden, but the Icelandic CAA rejected them. It was highly difficult to get the AMP approved and new demands were constantly put forward by the Icelandic CAA. Members of SFI spent day and night in the high season to fulfill the demands put forward by the CAA. All the gliders were grounded, more or less, since the annual inspections were not executed until the AMP was approved. We had to cancel the Icelandic Gliding Championship due to the situation, since the majority of the Icelandic gliding fleet was grounded. Many private glider owners gave up on keeping up with the necessary maintenance of their planes.</p> <p>The new CAA requirements for a 12-year overhaul of the equipment of towing airplanes, such as carburetor, ignition, starter and generator have cost the club the around 6.000 euros, in addition to working hours put in by members, we have had to ship all these components abroad for inspection, by demand of the CAA.</p>
67	<p>All topics of a maintenance programme are part of the aircraft records and are easy to find in each aircraft logbook. And all topics will be checked during an annual airworthiness review and the execution will be documented by certifying staff. Therefore maintenance programmes do not increase the level of safety. But they cause much work and notable costs. To keep them up-to-date will give rise to additional costs/fees at the NAA. In my opinion maintenance programmes are not necessary for sailplanes. EASA could instead specify the content of aircraft logs.</p>
68	<p>This is a huge burden to GA aircraft, too much paper work with no extra security just more cost</p>
69	<p>As we have a large fleet of the same helicopter type (around 30 Robinson R22 and 60 Robinson R44 we really appreciate the possibility of the generic</p>

¹ <http://aviation-safety.net/wikibase/wiki.php?id=138220>

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	<p>maintenance programmes. As we have quite a lot of updates (updates of the maintenance date, new customers, customers leaving...) we also appreciate the possibility of the indirect approval. As we have customers in 3 different countries and both private owners and AOC operators we finally still have more than 6 separate maintenance programmes for the Robinson R44 although all copies are nearly identical. There is only one page different with each specific country requirements and 1 page with the AOC requirements.</p> <p>The indirect approval method is theoretically also possible for aircraft registered in another member state (M.A. 302 (c)(ii)) but in reality this is still a problem. When we have a change in the applicable maintenance data we can update our maintenance programme for our private owners but for the aircraft registered in other countries and for our AOC operators we have to send the maintenance programmes to the respective NAA for approval which can take a lot of time. In a worst-case scenario all our maintenance programmes for the Robinson R44 will be at a different revision status of the maintenance date which is totally ridiculous and impossible to follow (both for the CAMO department and for the Part 145 technicians) A further development of the guidelines for the cooperation between the different NAA's would be welcome or even an EASA approval instead of a NAA approval so that we can reduce the number of maintenance programmes for the same aircraft type and speed up the approval process in case of updates.</p> <p>Another issue that we have is that if we want to change our scope of work with a new type we have to introduce a maintenance programme for this type to our NAA. In our case we had Dutch client that has bought 1 helicopter of a new type. So in the first place to have our CAMO approved for this type we had to introduce a maintenance programme to our Belgian CAA although we don't have any Belgian registered helicopter of this type and then after we obtained our CAMO approval we had to introduce another maintenance programme for this specific helicopter to the Dutch CAA. Now we have 2 maintenance programmes for only 1 helicopter!</p>
71	<p>The owners of 'classic' leisure aviation aircraft are often non professional aviation personnel. Therefore they do not have often aeronautical background and knowledge to a level of effectively managing by themselves continuing airworthiness of their own aircraft, preparing, developing and sustaining discussion with NAA for obtaining approval of the maintenance programme or for actively contributing to the effectiveness of the ACAM programme. They often select to manage continuing airworthiness of their own aircraft in accordance with M.A.201(e)(ii) without contracting a CAMO, even only for the maintenance programme, simply to reduce the overall operational costs of their aircraft: their decision is strongly relying on the active contribution and support to manage the continuing airworthiness of their aircraft from the maintenance organizations or independent CS to which they contract execution of requested maintenance, as they were used to do under previous national requirements.</p> <p>Additionally most of such aircraft are often maintained in accordance with recommendation issued by the TCH integrated with operational related maintenance requirements which may be requested by NAA and which are taken into account through the contracted maintenance providers. Therefore the CAMO system and the requested process to formalize and approve a maintenance programme for their aircraft are only felt as an additional bureaucratic layer and an unnecessary further economic burden without any real benefit toward an increase of the overall level of operational safety. We should also consider that the approval of the maintenance program was not requested for such a class of aircraft in many EU Countries under the preexisting national requirements.</p> <p>We therefore believe that the following proposal may be considered as a possible alternative scenario to the CAMO/approved maintenance program regulatory framework. All owners/operators of such aircraft may benefit from changes in the above mentioned areas.</p>

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Notwithstanding the possibility for the owner of privately used reciprocating-engine powered and single-engine turbjet-turboprop powered aircraft, with MTOW less than 2730 kg, and sailplanes, powered sailplanes, balloons and airships, as defined in ELA1 or ELA2, to operate them in accordance with continuing airworthiness system designed by current PART M, no person will privately operate the above mentioned aircraft, unless:

- (a) the mandatory replacement times, inspection intervals, and related procedures specified in the airworthiness limitations section of the instructions for continued airworthiness of the TCH are complied with unless otherwise allowed in accordance with Part M;
- (b) any modification or repairs to be embodied in the aircraft has been managed and approved in accordance;
- (c) any applicable airworthiness directives is complied with in accordance with M.A.303 provisions;
- (d) any defects and malfunctions experienced on the aircraft are rectified in accordance with M.A.403 taking into account M.A.304 provisions;
- (e) within the preceding 12 calendar months or 100 hours of time in service whichever occur first, the aircraft has received an annual or 100-hour inspection and been approved for return to service in accordance with Part M subpart H provisions. The 100-hour limitation may be exceeded by not more than 10 hours while en route to reach a place where the inspection can be done. The excess time used to reach a place where the inspection can be done must be included in computing the next 100 hours of time in service;
- (f) the ARC remain valid in accordance M.A.902

Contents of annual or 100-hour inspection should be defined in the Part M or requested to be identified by the TCH in the ICA. This annual or 100-hour inspection should include the series of activities currently been part of the airworthiness review as defined in the M.A.710, including an evaluation and embodiment of changes published by the TCH as necessary in accordance with actual in service experience of the aircraft as resulted by the aircraft maintenance records. It remains aircraft owner responsibility to decide about implementation of TCH recommended ICA based on its own in service experience between two consecutive annual or 100-hour inspections.

In this case no need for preparing a maintenance programme and for obtaining its approval by the competent authority. This will have an impact on M.A.803 and Appendix VIII (and related AMC material) which should be reworded to include specific provisions to take into account new proposed scenario. A declaration issued by the pilot-owner as qualified in accordance with M.A.803 (a) should include the information previously requested to be specified in the aircraft maintenance programme in accordance with point (a) of Appendix VIII or in the point 3 of AMC M.A.803.

At the end of the above inspection, the CS (both independent or employed by the appropriately approved maintenance organization) who carried out that inspection and appropriately approved by the competent authority of the State of Registry (e.g. using criteria established under M.A.901(g)) will issue the airworthiness review certificate (no recommendation) with a validity of one year: a longer interval may be investigated but it should be seen in comparison with controlled environment scenario.

72	<p>In general we accept to use maintenance programs for aircraft with a certain level of components or equipment. For very simple aircraft like gliders, powered gliders and simple ELA1-aircraft, which do not comprise of a lot of components, we don't see any reason for such a paper work, as long as all maintenance specifications issued by the EASA TCDS or changed by an AD will be followed without deviation. The maintenance for this sort of aircraft is properly described in the maintenance section of one or two manuals and additional equipment is perhaps an ELT only.</p> <p>We do not see any need for an owner/operator/CAMO to sign a statement as mentioned in Appendix I to AMC M.A.302 1.1.4. The owner/operator/CAMO</p>
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Maintenance programme general - Generic maintenance programmes and indirect approval procedures	
	<p>has to follow the published regulations and it is his responsibility to be up to date with that. (When driving a car we don't have to sign a statement, that we will follow the rules.) It should be sufficient if the person/organisation which has set up the list of pilot owner tasks signs for this execution and the owner/operator signs that it will be followed. This would also allow the list to be transferred in and out to/from a CAMO without further signatures/approvals (if technical or organisational changes are not required). At the moment the indirect approval of maintenance programs is only possible for aircraft being in a controlled environment. The possibility to use the indirect approval process for aircraft having a contract for the development of a maintenance programme is only mentioned in AMC M.A.201 (e), not in the regulation itself. The fees at LBA for the approval of maintenance programs can be estimated to be 2.700.000 € for Germany in 2012 only. If we can estimate that about 10% of the aircraft changes owner and therefore require a new programme, there are still 270.000€ necessary for every year following. If we could divert these costs into a flight safety program for pilots we would really get a much better return of invest!</p>
73	<p>The increase of paperwork resulted in a tremendous increase of cost. The aircraft owners and maintenance organizations report a triple or quadruple of the administrative cost on maintenance which result in figure of additional Eur 1000,= to 2500,= per annum per aircraft plus the initiation cost of several thousands of Euro's. Furthermore the national interpretation of the EASA Part M rules are not standardized and cause risks.</p> <p>Differences reported eg.: a booklet of 40 pages including all maintenance details is required for approval by the Dutch CAA. Due to the man power capacity at the Dutch inspection and the volume of the book, the CAMO has to wait for several months the get an approval. For the same type of aircraft, F registered, an overview of two pages referring to the maintenance instructions of the manufacturer including validity dates, complies and the approval is received within some days.</p> <p>The process of keeping updated the Dutch paperwork by copy/paste for each individual aircraft is very time consuming and does not contribute to safety. In the French situation only the date and version number of the manufacturers release has to be updated. International standardization and level playing field is abused by the national authorities.</p>
73	<p>Too much detail is to be specified in the maintenance document this delays approval by the Dutch CAA</p>
74	<p>a. The possibility to prepare a baseline program is often used in The Netherlands. There is however a discussion on whether baseline programmes must include all tasks/intervals, all repetitive AD's applicable to the types. For better clarity it is suggested to expand AMC MA709(b).</p> <p>b. Since many national authorities have different interpretation of the rules related to AMP's. It is almost impossible for CAMO's to prepare/develop an AMP which is mutually accepted. This creates an unlevel playing field. It is suggested to increase the effort to harmonise this subject.</p> <p>c. The additional periodic maintenance requirements is still a competence of national authorities. Such requirements typically contain periodic testing of emergency and operational system. Apparently, during the certification process no ICA's are determined for these systems and its proper functioning. Examples are:</p> <ol style="list-style-type: none"> 1. CAA-NL: OAL 76-001 (Proposed MD NL-2011-02); 2. CAA-UK: Form SRG 1724 Issue 02 Appendix IV; 3. CAA-CH: FO_LFA_ACE_603_v2_0 Operational Requirements; 4. CAA-B: Circulaire AIW-41; 5. EASA SIB's 2011-13, 2011-14, 2011-15: transponder testing. <p>It is suggested to commence a harmonization of national operational directive rules, the results to be issued as EASA SIB's.</p>

Maintenance programme general - Generic maintenance programmes and indirect approval procedures	
75	Generic Maintenance programmes are approved by the Authority, but nearly each authority does not have any knowledge and the necessary maintenance documents of the individual type of aircraft. It will be better to give an authorisation to the CAMO's with additional privileges i.a.w. M.A.711(b) to approve directly a maintenance program without any approval by the authority. Then Maintenance Programs will be approved by knowledge people in an acceptable time to follow the Manufacturer changes in the maintenance documents.

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ISSUE 8: Qualification and position (incompatibilities) requirements for airworthiness review staff

Qualification and position (incompatibilities) requirements for airworthiness review staff	
CMT	COMMENT
1	OK - no comment
4	No experience therefore no comment
10	<p>M.A. 707 (a) 1 and 2 - Qualifications / Experience required to issue Airworthiness review Certificates and Permits to fly.</p> <p>I do not feel that the “Foundation Qualification should be substituted by an additional 5 years experience in continuing airworthiness.</p> <p>I think it imperative that sufficient Aircraft engineering knowledge which is gained through the process of attaining a B1/B2 license cannot be replaced by simply being an extra few years in the continuing airworthiness environment.</p> <p>To be approved to carry out Airworthiness reviews should require a B1 or B2 license and 5 years experience or at the very least an aeronautical degree and the experience. Therefore I propose to have items 1 and 2 (e) deleted and in 1 (a) and 2 (a) the following added : “At least 5 years experience in continuing airworthiness “ to include extensive experience in the processes of carrying out Airworthiness reviews and issuing Permits to fly.</p>
11	Qualification and Position No comment.
13	I believe that any person involved in carrying out an airworthiness review must have an engineering back ground and have experience of several different models of aircraft. As an illustration I was recently told that a person carrying out the physical survey only needed the assistance of a licensed engineer if there would be a requirement for a Certificate of Release to Service. As the person involved was of a secretarial disposition I was appalled. How could they identify any problem without engineering assistance?
23	<p>With reference to 7/ above, the lack of Part 66 licence for sailplanes means sailplane inspectors are forced into using the alternative requirements of an additional four years making a total of seven years experience to be eligible as an ARC signatory (M.A.707).</p> <p>Suggestion Adopt national and sporting organisation authorisations as equivalent to Part 66 under national procedures for ELA-1 aircraft.</p>
25	As requirements for airworthiness review staffs are still not known in final edition, we have no comments.
	<p>The postponement of Part 66 B3 and L licences leaves some countries in a difficult position because we are compelled to continue to use local or company authorisations as the primary certification vehicle.</p> <p>To date, the sport of gliding has relied on self regulation and local approval, invariably proving adequate or above levels of safety. We now find ourselves in a transient state, reliant on the sympathetic interpretation of formative or 'perceived' future rules by NAA staff. In some cases operations have been closed during negotiations. We recognise that the ELA concept has helped to quantify the class of aircraft where alleviations might be considered.</p> <p>In cases where licences are nationally approved to a defined standard, these licences nevertheless remain national licences only and are not recognised in other EU nations leading to an incomplete and fractured regulatory structure.</p>

Qualification and position (incompatibilities) requirements for airworthiness review staff	
	<p>In all, it had been expected that the introduction of EASA licences, with suitable grandfather rights, would alleviate some of the un-necessary burden of Part M as intended. These delays are forcing the continued use of national procedures may preclude some of the freedoms of the Part 66 engineer and increase the dependence on Subpart F organisations. For example the accomplishment of Complex Maintenance Tasks and Component maintenance on ELA-1 aircraft where a Part 66 LAE can certify outside the Part M Subpart F organisation.</p> <p><u>Suggestion</u></p> <p>7A EASA should recognise the present and ongoing role of locally trained and authorised engineers who are vital to the effective functioning through the National Sporting bodies. Such bodies await the development of realistic training syllabus to enable the regularisation of standards, recognising the voluntary status of these experts who can only contribute part of their time to these activities.</p> <p>7B Since most of the work has already been completed on the L licence (now under review) it should be revisited to provide a simplified version. We suggest a single L licence with very much simplified categories and wide provision for applicant to establish 'Grandfather rights'.</p>
30 (see 23)	<p>With reference to 7/ above the lack of Part 66 licences for sailplanes means that inspectors are forced into using the alternative requirements of an additional four years making a total of seven years' experience to be eligible as an ARC signatory.</p> <p><u>Suggestion</u></p> <p>Adopt sporting organisation authorisations as equivalent to Part 66 under national procedures for ELA-1 aircraft.</p>
33	Performance of the airworthiness review and issuance of ARC/recommendation - nothing to change
34	Difficulties can arise when two different licensed engineers need to be found to cover uncommon types of aircraft. A one signatory process should be used, relying on a periodic quality audit.
35	Due to the possibility that the maintenance work as well as the examination could be done within the same company or even by the same person, it could lead to a potential conflict of interest. Therefore a separation of role-separation should be taken into place.
36	<p>The possibility of an "Overall Authority " according AMC M.A. 707 shall be terminated, at minimum there shall be a Quality Manager acting also as PCA in order to control the performance of record keeping and performance of an airworthiness review .</p> <p>The limitation that a person involved in the management of the cont. airworthiness or performing an AR on an A/C shall not be involved within the maintenance and Release to Service of such that specific aircraft is considered very important .</p>
37/70	The content and purpose of an airworthiness review is well defined. In smaller organisations, the same person is normally competent for releases to service as well as for airworthiness reviews. Our experience shows that many of the small organisations have started a cooperation, mutual exchange of review staff between themselves, after they were shown the benefits in respect to human factors and responsibility. We would advocate that for non-complex aircraft certifying staff may not only review the aircraft and recommend

Qualification and position (incompatibilities) requirements for airworthiness review staff	
	ARC renewal, but also be allowed to directly renew the ARC unless substantial evidence (data) would prove that this was not a safe process in the past. An ARC renewal period of three years would be appropriate and safe enough to the second and third segment.
38	<p><i>Proposed solution or change:</i></p> <ul style="list-style-type: none"> • Remove the requirement to be independent IAW AMC M.A.707 for GA aircraft.
39	<p>Common problem for all small organisations: the partition of the maintenance and airworthiness management tasks between 2 or 3 people is too complicated if the organisation has to comply with the Part M regulation (case of independence from the airworthiness management).</p> <p>Overall authority is not always possible.</p> <p>Proposed solution: at the start of the CAMO, they commence with the “overall authority” scheme to give “sufficient time” to propose new ARC staff. After this “initial” period, “independence from the airworthiness management” scheme can be used.</p>
40	<p>AMC M.A.707(a)5 introduces requirements for independence of airworthiness review staff, which appear not to be in the regulations themselves. Differences in interpretation of the AMC text has led to differences of opinion amongst NAAs within the EASA states as to whether it is permissible for the same person to carry out an airworthiness review and maintenance activities (principally the annual inspection) on a balloon at the same time. It is clearly permissible for one-man operations, since this is explicitly stated in the AMC text. For a balloon, since the annual inspection and the airworthiness review address essentially the same things, it is entirely appropriate for the annual inspection to be done as part of the physical survey for the airworthiness review; in such cases, the AMC text permits the airworthiness review personnel to be involved in the aircraft CRS, so it is permissible in these cases as well. By judicious interpretation and explanation of the overall authorities of airworthiness review personnel within the CAM exposition, it is possible to permit this within larger organisations with several such staff.</p> <p>Thus, it is usually permissible under most circumstances to allow the airworthiness review to be completed by CRS personnel who have also issued CRSs for the same aircraft (although not all authorities have recognised this).</p> <p>It must also be appreciated that in a larger organisation there will be more oversight of the individual staff members than would be the case within a one-man organisation, so the need for independence in a large organisation when there is no such restrictions on one-man organisations is illogical.</p> <p>Requested Action: Additional AMC M.A.707 material to be provided to state explicitly that, in the case of balloons, subpart G organisations may nominate subpart F personnel as airworthiness review staff, with no further restrictions on independence or CRS issue status.</p>
40	<p>Regarding the qualification and experience requirements for airworthiness review staff, there is again a lack of proportionality. There are only two ‘sets’ of requirements (M.A.707(a)1 and M.A.707(a)2) and the only differences between them is the need for either three or five years experience in continuing airworthiness (and four as opposed to five years further experience in lieu of a rating). In the case of balloons, the requirements are excessive. Three years experience in continuing airworthiness is not needed. As has been outlined above, everything that is done for an airworthiness review on a balloon is done as part of the annual inspection, which may be carried out by a newly qualified Annex III (part 66 equivalent) licence holder. There is actually precious little expertise in airworthiness reviewing that will be gained during the three year wait to gain the required length of experience. An aeronautical degree is an inappropriate equivalent to a part 66 licence for balloons. A suitable technical education to secondary school level would probably suffice. It is probably quite difficult to establish a suitable pan-European academic achievement level which would be a suitable alternative and this may be better left to the relevant National authorities to judge each case on its merits.</p> <p>Requested Action: The regulations should be amended to remove balloons from M.A.707(a)1 and M.A.707(a)2 and a third para, M.A.707(a)3, be created</p>

Qualification and position (incompatibilities) requirements for airworthiness review staff	
	which addresses only balloons and which removes completely the equivalent sub para (a) concerning experience and amends the sub para (b) to remove the reference to the aeronautical degree, replacing it with something like or technical academic education acceptable to the NAA.
43	Point of View of an aviation expert. This is felt to be a heavy burden in the smaller structures (small Aero Clubs, etc.), where the separation of responsibilities often requires outside contracting personnel, sometimes of dubious value and reliability, and called in just to sign off the work. Perhaps some latitude in self-certification could be beneficial.
43	Point of View of a maintenance shop The ARS qualification requirement in the field of G.A. is very similar to the same level of qualification for larger aeroplanes, it is in theory correct as the responsibilities are the same. However, the costs involved are too high and it is hard to recover them. In addition this is a burden for small clubs and flight schools obliged to hire external personnel just to obtain a signature that they had done until few years ago.
43	Point of View of an Aero Club w. flight school As a CAMO with a lot of airplanes we are satisfied with the situation that brought an improvement to the previous status in terms of "speed". ENAC controllers are very few and, despite the fact that the airworthiness renewal was done on a tri-annual basis in the past we had a lot to wait. Now we do the ARC on our own and this is obviously an advantage. The qualification process is, however, quite complex, and, as already stated, with the change of an inspector we notice the change of the rules (or, better, of their interpretation). Smaller clubs, may have considerable problems ... being forced to go to a CAMO and bearing all the relevant costs.
43	Point of View of a normal Owner-operator of a private plane. None of my business ... but I hear that paperwork is more and more and that, consequently costs are higher.
46	Requirement of airworthiness review staff position in CAMO i.a.w. AMC M.A.707 is strange - either "independent from ... " or "With overall authority of the airworthiness management process of complete aircraft". It is difficult to understand the point, why both extreme possibilities are acceptable, but nothing in between them.
48	Situation: Eine Differenzierung zwischen Freigabe und Prüfung der Lufttüchtigkeit ist bei dem Prüferbestand der Allgemeinen Luftfahrt nicht einzuhalten. Unter dem Gesichtspunkt, dass es sich bei notwendigen Freigaben meist um einfache, überschaubare Tätigkeiten handelt, können diese nicht dazu führen, dass eine Prüfung für die Ausstellung des ARC durch die eine oder andere Freigabe im Verlaufe eines Jahres unmöglich wird. Vorschlag: Streichung dieser Forderung für ELA-Luftfahrzeuge. A differentiation between release and review of airworthiness is not feasible due to the number of qualified inspectors in the area of general aviation. Considering that each release generally covers a limited number of tasks only these tasks may not create a situation where the issuance of the ARC becomes impossible because of a specific release during the year. Proposal: Delete the requirement (for an AR?) for ELA aircraft. .
52	In praxis M-G organisations hold also an M-F organisation approval. The 100 h / calendar year inspection will be performed mostly in combination with the

Qualification and position (incompatibilities) requirements for airworthiness review staff	
	physical airworthiness review. In a one man organisation it's ok to affirm both. In a bigger organisation it's necessary to dublikate the work (see Kap.1). A smarter solution should be found by a working group.
53	<p>Qualification and position requirements for airworthiness review staff</p> <p>Major comments</p> <p>The comments received indicate adequacy of the provisions, but also a need for more harmonisation across the member states.</p>
53	<p>Qualification and position (incompatibilities) for airworthiness review staff</p> <p>Major comments</p> <p>According to our commenters only few in-compatibilities exist.</p>
54	<p>Paragraph No: AMC M.A.707(a)5</p> <p>Comment:</p> <p>The CAA believes that the requirements for independence of airworthiness review staff (especially in the field of general aviation) when the ARC signatory is also involved in the accomplishment and certification of maintenance is not necessary to ensure an adequate level of safety.</p> <p>Justification:</p> <p>Current AMC prevents organisations from selecting the 'best qualified and most experienced staff' as ARC signatories as they invariably have been 'actively' involved in the release to service of the aircraft in their facilities at some time. There are already a number of 'checks & balances' already required by the regulation, such as the organisation's quality system, Competent Authority oversight via surveillance visits and the ACAM programme, to ensure that airworthiness reviews are properly accomplished.</p> <p>Proposed Text:</p> <p>Delete the following text in AMC M.A.707(a)5.</p> <p><i>"These personnel should not have been involved in the release to service of that particular aircraft (other than maintenance tasks performed during the physical survey of the aircraft or performed as a result of findings discovered during such physical survey) to avoid possible conflict of interests."</i></p>
55	<p>Feedback from sailplane manufacturers and maintenance organisations says that it is simply not possible for a small company to have different certifying staff for issuing release to service (RTS) and performing the airworthiness review with resulting issuance of the ARC. Typically such an organisation might be a one ore two person company holding the required licenses and the aircraft come for the case of maintenance (like repairs / modifications) and the regular airworthiness "inspections". This will always result into the situation that the person issuing the ARC has to review maintenance tasks which resulted into RTS signed by the same person. Of course introduction of an obligatory "four eyes principle" would make possible misuse more difficult but in the light of decades of such practise it cannot be seen that we have a real problem at hand here. Additionally it has to be understood that in many member states before Part-M there was no differentiation between performing maintenance tasks (today a Subpart-F organisation) and doing the airworthiness reviews (today a Subpart-G organisation / CAMO).</p> <p>Typically it was the very same organisation with a few inspectors and workers doing both. Those organisations have now been forced to hold two approvals (F & G) but naturally could not double their personnel because the work itself did not double.</p>

Qualification and position (incompatibilities) requirements for airworthiness review staff	
57	Qualification requirements related to different types of aircraft (4) The criteria “relevant sample” implies to cover typical systems installed on each type of aircraft. Guidance should be provided to help implementation. Should we consider typical systems such as fixed/retractable gear, fixed/variable pitch propeller, structure of aircraft (metallic, wood, composite) or is it possible to consider only the groups as defined in Part 66?
57	Role of the certifying staff assisting the airworthiness review staff (2) The rule and corresponding AMC are not clear concerning the role of the Part 66 support staff assisting the ARS during the airworthiness review. In the rule, it appears that this staff should provide technical support to the ARS. In the AMC, it appears his role is limited to a possible release to service, if necessary (in which case it is not enough for him to have a licence, he must be authorized to perform the release).
57	- Requirements related to the independence of the airworthiness review staff (2) In small GA organisations it is sometimes difficult to identify ARS independent from both airworthiness management and maintenance. For example, in organisations having both Part MG and Part MF approvals with one person responsible for the airworthiness management and another one responsible for the maintenance, only the person responsible for the airworthiness management can be accepted as ARS according to AMC 707(a)(5) (because he has overall authority on the airworthiness management process). It would be useful to also have the possibility to accept the maintenance manager if he has adequate competences in airworthiness management and if he is not involved in the airworthiness management although he is involved in the maintenance of the aircraft.
58	From our experience it is very difficult or almost impossible for small companies to have different certifying staff for issuing release to service (RTS) and performing the airworthiness review with resulting issuance of the ARC. This leads to the need to employ one more full time person with all related costs.
61 Same as 58	From our experience it is very difficult or almost impossible for small companies to have different certifying staff for issuing release to service (RTS) and performing the airworthiness review with resulting issuance of the ARC. This leads to the need to employ one more full time person with all related costs.
65	Bei allen Regeln sollte nie vergessen werden, daß in der allgemeinen Luftfahrt viele kleine Firmen nur sehr wenig Personal haben (können), bis hinab zu 1-Mann-Unternehmen. Forderungen nach getrennten Aufgabenbereichen (z.B.) sind dort schlicht nicht realisierbar. For all the rules it should not be forgotten that in general aviation there are many small companies that (can) have only a few persons, down to the one-man organisation. All requirements aiming at a clear separation between areas of responsibility (for example) are simply not feasible.
69	In the smaller companies it is already hard to find sufficient capable/qualified certifying staff. This becomes even more problematic if ARC staff has to be totally independent. It should be possible to combine the capabilities of Certifying staff and ARC staff; example ARC staff is limited to sign 50% of all CRS and may not sign the last CRS before ARC issue
74	a. Typically in the GA, the organization performing the maintenance and CAM/ARC tasks is a small organization in which one person fulfils multiple responsibilities under both organization approvals (the role of a CS as well as ARC staff). To ensure independence, the organization have the tendency to create a virtual split of responsibilities among multiple persons. What is the predominant factor for an ARC person: independence or competence? b. Qualification standards seem to be ok. It is suggested to move the requirements from MA707 to AMC, to be consistent with MA706 and AMC to MA706.

Qualification and position (incompatibilities) requirements for airworthiness review staff

75 | The requirements for airworthiness review staff is sufficient and should not be changed.

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ISSUE 9: Performance of the airworthiness review and issuance of ARC/recommendation

Performance of the airworthiness review and issuance of ARC/recommendation

CMT	COMMENT
1	<p>M.A.710(d)</p> <p>We get quite often in conflict with the strict interpretation of the “expiration date of the ARC”.</p> <p>As a balloon may not be easily physically checked indoor we depend on acceptable weather conditions to perform checks outdoor when responsibly performed.</p> <p>So this is a matter not to be planned as easy as with an aircraft or helicopter.</p> <p>For economic reasons it would make sense to be able to combine the annual check (Part-M/F) with the physical airworthiness review (Part-M/G).</p> <p>Austria was able at “pre-EASA time” to renew the ARC (former doc: Nachprüfungsbescheinigung) 3 month before to 3 month after the expiration date.</p> <p>Due to mentioned economic reasons it was usual to plan annual checks always in combination with the Nachprüfung (now: airworthiness review) in a certain area with some owners to reduce effort and costs.</p> <p>Now – as we are not allowed to overdue the extension or issue of a (new) ARC we get into troubles as the NAA`s interpretation is that we are not allowed to move the “expiration date of the ARC”.</p> <p>Even if we perform an extra “early” airworthiness review once to stay within the 12 month rule.</p> <p>To change the date of the annual check is often not a solution as special tests like grab tests require a “normal temperature and humidity” around 20°C and not a wet November day.</p> <p>We do not see any lack in safety as long as the AR-interval stays below 12 month but a solution to allow this “movement of the expiration date of the ARC” would have a lot of positive influence on effort, environmental protection and costs especially for small organisations and on the end for the owner.</p> <p>M.A.710(f)</p> <p>The time frame of 10 days to send the ARC to the NAA is too short</p>
4	No experience therefore no comment
6	I like to see a change where an AWR staff can perform AWR on any type in particular category if an aircraft in that category aircraft is already on the scope of the organization for example: if the organization has single engine piston og twin engine piston aircraft on its scope it can perform AWR on any single engine piston og twin engine piston as long as the AR Staff are in place to perform that task.
6	I like to suggest that EASA takes under consideration to increase the time period between AWR on private GA aircrafts for example that ARW would be required to be performed every 24 or even 36 months when not under CAMO control. In most case private operated aircrafts are only flying very few hours

Performance of the airworthiness review and issuance of ARC/recommendation	
	per year, at least in our environment. Perhaps each local authority could be given a tool to increase the 12 month requirements if aircraft are only used for personal operation. This would ease the requirements and cost for the aircraft owner and we should be able to trust the responsible person as stated in each AMP for the continued airworthiness of the aircraft between AWR.
22 (8)	<p>A. The 10 days requirement (MA 710 f) for reporting to the authority generates an excessive workload for CAMO+ of the size of G-NAV. Except in the case of a revoked ARC, the CAMO+ should only be required to show the relevant documents to the authority upon request.</p> <p>B. The Airworthiness Review Staff lack of practical solutions to resolve non-compliances that do not clearly endanger flight safety in the short term. A more effective approach should be developed based on return of experience. This would additionally be an incentive to the process improvement instead of the current practice which tends to minimize or hide these difficulties.</p> <p>C. Avoid cases in which a glider owner asks approval by a more accommodating CAMO+ if the initial CAMO has revoked the ARC. In case of negative conclusion of the review, the review Staff should be authorized to put it in writing on the log book.</p> <p>D. Give CAMO+ the privilege to approve a recommendation prepared according to MA 901 (g) and to deliver the ARC. This is even more justified when the CAMO+ performs the review every three years.</p>
11	What justification is there for taking this away from the engineer carrying out the inspection (as was the case pre Part M) ? Arguably the engineer is far better placed to comment and make recommendations regarding the airworthiness of an a/c.
12	<p>Appendix XIV to AMC 302 (d):</p> <p>The Appendix XIV is of course an adaptation of FAA FAR 43 Appendix D. Since the Appendix XIV is intended for aircraft, all references to balloons are omitted. Added is an adaptation of MA 710, where the following changes are made:</p> <p>Aircraft Records:</p> <ol style="list-style-type: none"> 1. The term “Flight cycles” is removed.. 2. Rewritten to be more to the point. 3. Omitted, as the AMP we are proposing contains only inspections. 4. – 5. – 6. Added text re. Airworthiness Limitations to improve clarity. 7. Rewritten to be clearer. 8. Original text moved to 9. Added text makes it impossible to demand that pre-pt 21 repairs comply with pt 21. Additionally, most aircraft are

Performance of the airworthiness review and issuance of ARC/recommendation

maintained by the same technician at least for periods, this way we are able to reduce the burden of investigation by limiting research to only the passed year.

9. Text moved to 10.

10. Text removed as that inspection is very difficult to carry out effectively, and the value of it is questionable.

11. Rewritten to be clearer.

Physical Survey:

1. Improved clarity and to remove any implied reference to the IPC. We do not want to waste time on irrelevant placards and decals.

2. This is checked in the Aircraft Records inspection point 2.

3. This is checked in the Aircraft Records inspection point 10.

4. Improved clarity.

5. Improved clarity.

As a consequence MA 710 Airworthiness Review is amended accordingly:

MA 710

...

(f) For non-complex aircraft used in non-commercial operations, the following checks and verifications must be made by certifying staff in compliance with Annex III (Part –66):

Aircraft Records:

12. Inspect log books to verify that Airframe, Engine and Propeller flying hours have been properly recorded.

13. Inspect Flight Manual to verify that it covers the present aircraft configuration (e.g. floats, skis, wheels etc.) and that it is of the latest revision and if not this is carried forward in a controlled manner.

14. -

15. Verify that all known defects have been corrected or carried forward in a controlled manner.

16. Verify that all applicable Airworthiness Directives have been applied and properly registered.

Performance of the airworthiness review and issuance of ARC/recommendation

17. *Verify that all Airworthiness Limitations as found in the Type Certificates for the Aircraft, Engine and Propeller or in the approved part of the Aircraft Maintenance Manual, i.e. Chapter 4 if applicable, are applied and properly registered.*
18. *Verify that all components with an Airworthiness Limitation as above have their own log cards and that flying hours are properly registered.*
19. *Verify that all repairs and modifications carried out since the previous Annual Inspection are approved in accordance with MA 304 and are properly registered.*
20. *Verify that all maintenance since previous Annual Inspection has been released in accordance with pt. M.*
21. *Verify that the current Mass and Balance report reflects the present aircraft configuration and is valid.*
22. *Verify that if the aircraft is required to have a Noise Certificate, it exists and corresponds to the present aircraft configuration.*

Physical Survey:

4. *Verify that all markings and placards as required by National Requirements, the Type Certificate and/or Flight Manual are present and legible.*
5. *Verify that no evident defect can be found that has not been carried forward in a controlled manner.*
6. *Verify that equipment installed in the aircraft corresponds with the Aircraft Records.*

(g) A copy of the airworthiness review certificate... (text from existing (f)).

(h) Airworthiness review tasks... (text from existing (g)).

(i) Should the outcome... (text from existing (h)).

Paragraph (f) introduces Part-66 personnel as performer of the airworthiness review. This may appear bold, but in real life the Part-66 technician working physically on the aircraft is in the majority of cases the same person as the CAMO. Having a CAMO approval has done nothing to improve his workmanship or expertise, it has only forced him to spend hours, days, months trying to comply with the complicated CAMO regulations.

Those hours, days, months must somehow pay for themselves, and the money comes from the aircraft owners. This is in large part responsible for the vast increase in costs for continuing airworthiness. The fees levied by the NAA for the CAMO approval do not improve matters. The verifications/inspections above are tailored to 2NC. Any Part-66 person will easily perform them even without a CAMO approval. One layer of expensive and frankly, quite unnecessary bureaucracy removed.

13	In common with many other maintenance organisations I do not revalidate existing ARCs but always re-issue them. There is no difference in the amount of work involved so I see no benefit in the revalidation process. I would also like to put on record that I do not accept that the only way to safe guard aircraft and maintain standards is through Approved Organisations. As an engineer of long standing I believe that responsibility for keeping up standards should be
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	left in individuals hands. My requirements do not change just because I have a company approval nor do most of my compatriots. Please do away with this unwarranted requirement and put the responsibility back where it belongs on the certifying engineer. Not only will this ensure safety but will also result in better economy for aircraft owners
20	We have approved several personnel as per M.A.901(g) and so far have no problem with that. However that requirement that every three years an CAMO have to perform the AR is going to create problem for the industry and increase the cost. Our experience is that most GA owners do not like to have CAMO performing the CAM and therefore not the AR due to cost. CS approved as per M.A.901(g) cost less. The CS approved as per M.A.901(g) should possible be allowed to perform always the AR. If they can do it twice, way not always? Alternative would be to allow CAMO to perform it, even on aircraft type that is not on its scope if the CAMO have similar type under CAM service and with AR privilege if it is for aircraft that is only in GA. It should not be allowed to transfer into commercial operation without having proper CAMO approved for the type performing AR.
21	With the EASA Regulations should make it easier to handle aircraft across the borders if the have a valid ARC, but the process is still time consuming and difficult just like in the past. The intension of the EASA system was to set up a common standard for handling aircraft but apparently, the various EU competent authorities are uneasy to accept each others aircraft documentations and approval certificates.
25	Danish Soaring Association CAMO only operates in uncontrolled environment. In case of using the same CAMO from one year to next year, a complete review should not be necessary. The CAMO has already the first time performed a complete review, and signed of for it. Therefore only what has happened since last review should be revised. If another CAMO has performed the last review, a complete review could be defended – but – is it not the whole idea, that maintenance, release to service and even reviews should be performed in the same way? Why then do it over and over and over again. Suggestion: At least when no other CAMO has been involved in the maintenance of an aircraft since last review, a complete review should not be required.
30	<u>Suggestion</u> 9A EASA might care to consider enabling a 3 year ARC renewal period for ELA aircraft (including sailplanes) operating in the 'Un-controlled environment' - currently renewal is required every year. The concept of ARC extension is already well established in the Controlled environment. We believe that the occurrence of airworthiness issues (such as AD's) is well covered in other aspects of the rules, and is sufficiently limited in volume for it to be reasonable to extend full ARC renewal to a 3 year period.
32	Issue of ARC, we would reiterate that we feel that this has led to a massive increase in costs and bureaucracy for the Group A owner-operator.
34	There has been a significant increase in paperwork involved, and a targetd effort should be made to reduce it, restricting it to only what is absolutely necessary.
35	The airworthiness review interval (ARC) appears to be too short and poses a disproportionate burden for the GA, without a real gain in safety. The safety level can be assured by ACAM and ramp inspections. It is therefore proposed that the current interval for the ARC validity in the GA should be extended from one year up to three years.
36	<u>See again comment of indep. CST :</u> The permission to issue “ Recommendation of Issuance of an ARC” shall be terminated, when doing the initial training and approval to Issue such a recommendation the NAA also gets an “angel performance” , we’ve had a couple of A/C for maintenance as well as airworthiness review that had an ARC issued followed by a recommendation which did in no way (documentation and technical airworthiness) comply with the requirements of Part-M .

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	<p>Currently our NAA doesn't seem to have the time and manpower to do double-checks on "recommendations".</p> <p><u>Controlled Environment:</u> It's seen that the possibility / regulation that the A/C being managed within in a controlled environment needs to be seen only every 3 years is not the best way to keep the airworthiness as well as the technical standard up to a acceptable condition I the field of gliders / glider aircrafts (maybe in addition being maintained by any P/O) . Our proposal is that even the cont. airworthiness is managed by an approved Part M/G organisation there shall be the need to see the A/C at least once in a year by the PCA (and the Quality Manager) (best is to see it at the end of each yearly period when the ARC is meant to be extended). There are CAMO's managing almost 1500 A/C's , we doubt that the control of the airworthiness of each individual A/C can be done without any gaps or without losing informations. Looking at such organisations there is one PCA with some secretaries which do the bureaucratic act but do not full-fill the qualification requirements like the PCA. As for the time being there is no clear identification mark that shows if an aircraft is managed within a controlled environment by any CAMO or not if the ARC has not being extended , the CAMO itself contacts the maintenance organisation or the owner/operator highlights that condition. From what we've seen in the past the above mentioned responsibility to report that fact is low, missing or simply disregarded.</p> <p>In general : We think that on non-commercial operated A/C within the ELA-1 category the management within a controlled environment is neither practical nor sufficient . For the safety the only sufficient and feasible action is to perform a n Airworthiness Review on a yearly basis (document-review and physical review) !</p>
37/70	<p>The CAMO concept introduces at least one additional interface into formal airworthiness. Whereas this may be justified for large organisations with many hierarchy levels, it mainly introduces an additional source of potential errors in SME organisations. We recommend to withdraw the CAMO requirement for non-complex in favour of sample airworthiness maintenance contracts between owner and maintenance organisation, where the responsibility for continuing airworthiness tasks is clearly defined. This would simply confirm and clarify the classic way of maintaining light aircraft in an airworthy status.</p>
38	<p><i>Problem:</i></p> <ul style="list-style-type: none"> • Difficult to find the lists of old TC/STC approved thru "Grandfathers right" . • Difficult to compile and find AD from the state of design that not are published on EASA AD-tool. • The review on a GA sometimes requires more knowledge than a modern aircraft made for CAT. For modern CAT aircraft the manufacturer have made "systems" that make it easier for the user. • Difficult to understand some TCDS since they may be written in other language than English. <p><i>Proposed solution or change:</i></p> <ul style="list-style-type: none"> • EASA develop and publish a "STD" procedure manual and checklists for the Part-66 persons that will perform the airworthiness review on ELA 1. (M.A.901g) • All EASA aircraft should have a TCDS written in English.

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	<ul style="list-style-type: none"> • Publish all TCDS on EASA web, even if they not written in English. • All EASA aircraft should have AD written in English.
39	<p>There is no common understanding of the implementation of the rules in different member states, which shows up when a CAMO is performing the AR for A/C registered in other countries.</p> <p>Examples: some CAA's demand an airworthiness review report showing NO non-compliances even if these non-compliances are resolved. Some CAMO's seem not to know the regulations: they issue an ARC without an AMP, or C of A, they don't inform the CAA in due time.....</p> <p>As a consequence, the CAA involved in the survey of her national fleet has an increased amount of work understanding all the differences between the member states practices. Suggestion: clarification in Part-M.</p>
40	<p>With a large, complex aircraft there will be a constant stream of scheduled and unscheduled maintenance events being carried out. And so it is easy to see why it may be a good idea to 'step back' at regular intervals and perform a separate review of the aircraft airworthiness and confirm everything is in order. However, it must be appreciated that a balloon is not like that.</p> <p>As outlined above, the principal scheduled maintenance for a balloon is the annual inspection. And as part of this annual inspection, it is normal to include all those tasks which are now defined as being part of the airworthiness review. And as part of the airworthiness review, the physical survey is effectively a (possibly less rigorous) annual inspection.</p> <p>Thus, it can be seen that for a balloon the annual inspection and the airworthiness review cover exactly the same ground and are effectively a duplication (particularly since they are both at nominally annual intervals and best done together).</p> <p>The ideal solution would be to exclude balloons completely from the need to have this separate airworthiness review. It seems inevitable that this will be rejected by EASA, since the airworthiness review is fundamental to the Part M regulations, so instead suggestions will be made to at least alleviate some of the duplication.</p> <p>Requested Action: Review and revision of the Part M regulations and associated AMC material to specify that the airworthiness review and annual inspection of a balloon may be combined into a single task and signed off by a single signatory.</p>
43	<p>Point of View of an aviation expert.</p> <p>No particular problems encountered so far.</p>
43	<p>Point of View of a maintenance shop</p> <p>CAMOs and ARS have certainly marked an improvement in the ARC renewal timing. However the market is without control : an ARC renewal may cost between 200,00 and 1.200 Euro with cases of unfair competition.</p>
43	<p>Point of View of an Aero Club w. flight school</p> <p>As a large club our costs have gone up only a little but on the outside market we see a little of everything...the tendency in this country is to push privates towards CAMOs when it is totally unnecessary but many owners do not feel like discussing with the CAA people and surrender the responsibility along with</p>

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	<p>the exaggerated work to be performed to CAMOs. Costs, in this case went considerably up ... laso in view of the fact that an airworthiness renewal, before, was done on a tri-annual basis, whilst the ARC, at the moment, has to be done every year (!).</p> <p>Even economically, whilst before the fares were determined by the CAA after discussions with AOPA and the National Aero Club nowadays every CAMO have its price policy and aircraft owners are no longer protected against abuses.</p>
43	<p>Point of View of a normal Owner-operator of a private plane.</p> <p>So far ... very expensive. We have gone backwards. I was submitting my plane to CAA once every 3 years and paying 350.000 Lires (approx. 180 Euros) every 3 years. Now I have to do it every year, and every year they ask me 600,00 Euros ... the increase is 1000 % !!!!</p>
45	<p>The workload related to CAMO+ and Subpart F is difficult to afford against the benefits that these organizations generate. An increase of the prices is not feasible for balloon operation.</p>
46	<p>There is contradiction between the Part M (= the law) and the respective AMC, which has lower legal power. Validity period of ARC i.a.w. M.A.901(a) is one year. However, AMC M.A.710(d) allows to issue the new ARC in advance "without loss of continuity of the airworthiness review pattern" - it means with validity longer (up to 90 days) then 1 year. AMC M.A.901(c)2,(e)2,(f) allows to extend validity of the ARC in advance "without loss of continuity of the airworthiness review pattern" - it means with validity longer (up to 30 days) then 1 year. In case of any legal dispute, the power of AMC is not adequate and use of the AMC M.A.710(d) or AMC M.A.901(c)2,(e)2,(f) can cause serious problem to the respective CAMO and/or airworthiness review person. Is there any appropriate procedure (date of issue), how to use the AMC provisions, so that the ARC validity might not be challenged?</p>
48	<p>Situation:</p> <p>Die Prüfung der Lufttüchtigkeit einfacher Luftfahrzeuge hat sich mehr und mehr zur Prüfung der Dokumente entwickelt. Ein Prozess, der sich offensichtlich bei der Übernahme der Regularien der Kommerziellen Luftfahrt entwickelt hat.</p> <p>Für einfache Luftfahrzeuge (ELA) ist jedoch die physische Prüfung am Luftfahrzeug eine seit vielen Jahren Jahre praktizierte Standardprozedur.</p> <p>Die Forderung des M.A.710 (f) nach der Zusendung einer Kopie des ARC ist unter praktischen und organisatorischen Gesichtspunkten zu knapp bemessen. Das liegt in erster Linie an der Arbeit ehrenamtlicher Prüfer und der Notwendigkeit eines internen Kontrollsystems. Dadurch können Korrekturen notwendig werden, welche die Versendung der Kopie des ARC an die Behörde verzögern.</p> <p>Vorschlag:</p> <p>Die Prüfung der Lufttüchtigkeit von einfachen Luftfahrzeugen und die Ausstellung des ARC muss praktikabler, praxisbezogener gestaltet werden. Der Focus muss dabei mehr auf der physischen Prüfung des Luftfahrzeuggeräts, denn auf der Kontrolle der Papierlage liegen.</p> <p>Die Zusendung der Kopie des ARC an die nationale Behörde erfolgt innerhalb eines Monats.</p> <p>The airworthiness review of simple aircraft has evolved over time to become a mere verification of documents; obviously this is due to the transposition of regulations applicable to commercial aviation. For simple aircraft, the physical inspection has been a standard procedure for many years now. The requirement in M.A.710(f) to send a copy of the ARC is too restrictive in terms of practical and organisational considerations. This is mainly linked to the fact that inspectors work on a voluntary basis and the internal control system. This may require corrections that delay the submission of the ARC to the competent authority.</p>

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	<p>Proposal: The AR for simple aircraft must be more in line with the practical aspects. Focus should be more on a physical inspection of the aircraft rather than on document verification. Submission of the ARC copy to the competent authority within one month.</p>
52	<p>A lot of paperwork must be handled even through the partly duplication of documentation between document and physical review. Very different approaches within EU countries concerning documentation apply. For better understanding unique Forms as GM created by an EASA Balloon Part M Forum would help.</p>
53	<p>Major comments The existing provisions are adequate to the operations of our members. The 3-years period for ELA 1 aircraft in the “uncontrolled environment” was also asked Remarks Equal importance seems necessary for the actual condition of the aircraft. Even with a perfect paperwork the aircraft may be u/s.</p>
54	<p>Paragraph No: M.A.901</p> <p>Comment: Paragraph M.A.901 is too complex, it contains several circular references and as a result it is often misinterpreted by Competent Authority and industry personnel. Most of the confusion arises from constraints imposed by the definition of the ‘controlled environment’ and the various means by which an ARC may be issued or its validity extended. It is suggested that a CAMO should be permitted to issue an ARC under all circumstances, except when a potential safety threat has been identified or the review proves to be inconclusive.</p> <p>Consideration should also be given to recognising that work performed and certified by independent certifying staff (in addition to the tasks defined in M.A.803(b)) does not adversely affect the safety of the aircraft and thus should not affect its controlled environment status.</p> <p>Justification: Simplification of this complex paragraph will aid compliance with the regulation and reduce regulatory burden, with no adverse impact on safety.</p>
54	<p>Paragraph No: M.A.901(b)(i)</p> <p>Comment: The definition of a controlled environment set out in M.A.901(b) is too restrictive and could be relaxed without negating the benefits considered to exist from the adoption of this concept.</p> <p>Justification: The proposed change to the regulation recognises that an aircraft that moves between CAMOs may still be continuously managed throughout the period of ARC validity.</p>

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	<p>Proposed Text: M.A.901(b) “...(i) continuously managed during the previous 12 months by a continuing airworthiness management organisation approved in accordance with Section A, G, of this Annex (Part M).”</p>
55	<p>Feedback here is that the amount of paperwork has much increased against the earlier annual inspections which were the standard procedure for small aviation communities. The possibility of issuing only a recommendation is seldom used as the administrative effort is not smaller. As already written it is widely criticised that the performance of the review and issuance of the ARC has become more and more a task of controlling and writing paper instead as of going out to the aircraft and having a good look at it to if it is airworthy. This reflects the way of thinking and performing maintenance in commercial aviation but this fits poor into the typical air sport environment. Basically this difference of thinking and performing maintenance has not been considered enough when Part-M was drafted and implemented and causes most problems – also during the issuance of the ARC.</p>
57	<p>Deletion of the concept of recommendations sent to the Authority Recommendations are made to the NAAs in two different cases : MA901(d)(ii) and MA901(g). The study of these recommendations, relatively “administrative oriented” because of the very limited amount of information available, does not add a significant value to the airworthiness review performed while transferring irrelevant responsibility on the Authority. DGAC suggests to delete the concept of recommendation and to spend the corresponding working hours on M.B.303 ACAM and CAMO aircraft surveys (with adequate focus on the cases leading today to a recommendation). This solution would probably ensure more adequate surveillance, and it could also be associated with the obligation for the ARS to inform the NAA about the date and place of the airworthiness review (for possible supervision on a random basis). Note: In the case of MA 901(g), the certifying staff would sign the extension boxes of the ARC after its AR (rather than having him issue a new ARC).</p>
57	<p>Items checked during the airworthiness review Flight manual update (MA.710(a)(2)) (1) M.A.710(a)(2) requires that the flight manual shall reflect the latest revision status. The DGAC considers that a flight manual is acceptable as long as it reflects the current aircraft configuration and that all amendments mandated by ADs have been included. Is this an acceptable position?</p>
57	<p>Specific case of aircraft imported from non EU countries (3) There is no EASA guidance available to indicate what is the acceptable level of investigation of the maintenance performed outside EU regulation (maintenance performed by non EASA approved organisations, including installation of components, potentially critical, without acceptable release documents). Is it enough to rely on the export certificate of the concerned NAA?</p>
57	<p>Management of findings resulting from the airworthiness review: possibility to renew an ARC in case of minor findings Minor findings not impacting safety may be identified during airworthiness reviews, which may be difficult to handle via request for exemption to the Authority. EASA should study the possibility for a CAMO or NAA to renew an ARC in this case, providing the cases authorised are identified and limited, a delay is defined for the corrective action and the NAA is informed of findings/corrective actions.</p>
57	<p>Airworthiness review (AR) privilege</p>

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	<p>The general feedback from GA community indicates that the CAMO approval, which is a concept introduced by Part M regulation with no equivalent in previous national regulations, is a burden in terms of financial and administrative constraints.</p> <p>However, they would like to retain the possibility to have AR performed by bodies other than the authority for financial and or flexibility reasons.</p> <p>For this purpose, they can have their AR performed by:</p> <ul style="list-style-type: none"> o Other CAMO+ organisations: but they are very few and almost always limit ARs to the aircraft they manage o Certifying staff under M.A.901g: but this is limited to ELA1 aircraft and subject to heavy limitations (recommendations only and obligation to have an ARC performed by a CAMO+ or authority every 3 years) In this context, it would be useful to envisage the possibility to create an organisation approval with privileges limited to the performance of ARs (not associated to a full CAMO approval). <p>This principle to have ARs performed outside CAMOs is the case of authorities (who perform ARs without managing aircraft) and has already been introduced in M.A.901g. The proposed extension of the concept to aircraft other than ELA1 and removal of the M.A.901g limitations is justified by the fact that it would be a full approval with approved organisation procedures (lighter than the full CAMO procedures since limited to the management of competences of ARS and AR performance) and surveillance by the Authority.</p>
58	<p>The general feeling is that the Part-M regulation is much more focused on paper work rather on actual condition of the aircraft which is not good principle. We think that it should be other way around.</p>
59	<p>This year we had to go through ARK inspections and because of the time involved in following that paper trail through and due to lack of funds we decided only to get one of our three gliders registered this summer leaving our student pilots without a single seat glider to practice on. Fortunately we got help from our friends in the Gliding Association of Iceland because they sent us an ARK inspector to inspect our two seater. It is not within our means to train a local ARK inspector as it is very costly and the person chosen for that study would have to take flights to Reykjavik to undergo it, that in itself is a discrimination by Icelandic law.</p> <p>When the next phase, CAMO inspections come into play as planned before 2013 we will be completely without any means of getting through those inspections as there is no CAMO certified holder for gliders in Iceland and there probably will not be any such service available in Iceland. As it looks now we will have to ship our gliders to the UK or Denmark for CAMO inspections, who will pay for that ?</p> <p>The loss of flying fees due to downtime while we work on paperwork counts in thousands of euros.</p>
60	<p>GIPAG really think that the whole system of ARC should be reviewed. Indeed, GIPAG supports the FAA system in which the CofA is delivered for an unlimited duration provided the annual inspection is satisfactory performed. Anyway, the staff currently signing an annual inspection engages his responsibility on the airworthiness of the aircraft. GIPAG asks for the ARC to be performed each year during the annual inspection, and this goes in the direction to delete the I privilege, or at least to decorrelate it from the CAMO (G) certification. ARC should not be a supplementary constraint, generating timing and planning constraints on top of maintenance activities; ARC should be integrated to annual inspections. *</p> <p>Also, customers changing of CAMO or of maintenance organisations may generate high risks for the person with I privilege who would accept to perform an ARC. As a consequence, GIPAG members prefer not to perform ARC on aircraft they do not manage as CAMO.</p>
61	<p>It is recognized that Part M shifts responsibility to a higher qualified licensed mechanic, which reduce inspection work in Annual inspections towards more paperwork, i.e. verification if the correct qualified staff did the correct and required tasks on the aircraft. While this is a logic and sensible step for commercial aviation and airline operation, this is hardly manageable on the lower end of the scale where flying clubs and private owners have to find a way to keep their aircraft airworthy. Factors behind this are operation scenario, operating environment of a club / private owner, resulting risk / threat levels and</p>

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	<p>finally cost effects. It is not at all supported by safety figures that this change in maintenance philosophy from the former national regulations towards the more paper oriented Part M approach has any safety enhancing effect on that low end segment of aviation.</p>
64	<p>As the Arc rew. staff does not do any maintenance there is no need for the staff to hold part 66 qualification. Any person who is experienced in maintainance related paperwork, and regulation and has some basic knowledge of aircraft (pilots licence.) could become arc staff after demonstrating his knowledge as needed. Mechanincs holding basic part 66 that have no flying experience have only partial knowledge for the job.</p> <p>The issuance of arc recommendation done by an individual or organisational staff should be limited to two years in a row for each aircraft, as it is completely against all quality control mentality to let the same person do this work year after year. A one man CAMO should also not be allowed to issue or renew arc's for more than two conecutive years. ELA aircraft operated in uncontrolled enviroment are therefore better of by having arc's done by individual staff alternating after two consecutive years than using a small CAMO. Therefore the mandatory CAMO arc every three years can just as well be done by alternating arc staff and therefore the need for Camo work could be eliminated..</p>
65	<p>a) Empfehlungen zur Ausstellung von ARC bringen keinen Vorteil sondern nur zusätzliche Bürokratie. Außer in speziellen Fällen (etwa die Einfuhr von Luftfahrzeugen) werden sie daher auch vermieden, wenn immer möglich.</p> <p>Recommendations for the issuance of the ARC do not add any value; therefore, special cases excepted (e.g. import of aircraft), they are avoided whenever possible.</p> <p>b) Der Eindruck setzt sich fest, daß behördlicherseits zunehmend mehr Wert auf „den Papierkram“ und weniger Wert auf die Kontrolle des eigentliche Fluggerätes gelegt wird. Dies Gefährdet die Flugsicherheit. Erfahrungen mit Teilen mit „hervorragender“ Dokumentation/Papierlage aber dem Zustand „Schrott“ oder schlicht nicht zum Papier passendem Objekt dürfte heute jeder in der Branche haben. Die Papiere sind Klasse, aber das Produkt ist lebensgefährlich. Diese Erfahrungen nehmen zumindest „gefühl“ zu. Woraus abzuleiten ist, daß mitlerweile zu viel Wert auf die falschen Dinge – eben das Papier – gelegt wird und zu wenig auf das Produkt.</p> <p>Growing impression that authorities focus more and more on paperwork and less and less on aircraft inspections. This endangers flight safety. We have experience with „exceptionally good“ paperwork corresponding to scrap aircraft. Papers are good but the aircraft is dangerous. Subjectively this phenomenon seems to be on the rise, which leads to the conclusion that the wrong things are valued, meaning paper instead of the product.</p> <p>c) Mit welchem Luftfahrzeug möchten Sie – lieber Leser - lieber fliegen:</p> <p>I) Nachprüfung der Papierlage, alles hervorragend, Flugzeug nur oberflächlich angesehen, Zustand etwas heruntergekommen, Loch im Treibstofftank übersehen</p> <p>II) Papiere etwas oberflächlich kontrolliert, Flugzeug intensiv durchgesehen, Defekt im Treibstoffsystem gefunden?</p> <p>Dear reader, which of the two aircraft would you prefer to fly in :</p> <ul style="list-style-type: none"> - Review of all paperwork – everything is perfect, aircraft only checked superficially, condition a bit neglected, missed the hole in the fuel tank. - Paperwork reviewed superficially, aircraft inspected in detail, defect in fuel tank detected. <p>Natürlich, der Idealfall ist, daß Papiere wie Fluggerät in gleich optimalem Zustand sind. Aber in der Luft zählt eher die Physik, weniger die Bürokratie. Ein fehlendes Lärmzeugnis an Bord hat noch zu keinem Absturz geführt, ein fehlender Hauptbolzen könnte da kritischer sein.... Leider ruft der „Geist von Teil-M“ eher „Papier, Papier“ und das wird behördlicherseits kontrolliert.</p>

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	It is obvious that ideally, the paper and aircraft should be in equally good condition. But, in the air it is only physics that counts, not bureaucracy. A missing noise certificate never lead to a crash, a missing main bolt may be more critical. Unfortunately, the spirit of Part-M calls for “paper-paper” and this is checked by the authorities.
66	ARC (Airworthiness Review Certificate) inspections also proved difficult and time consuming. Again, neither information nor meetings could be obtained concerning the ARC inspection. It took several months to get the approval for ARC-staff inspectors, and even to date 6 month old applications for ARC inspection license remain unhandled at the CAA.
68	ICAA are understaffed and they are taking much too long time in issuing the ARC and other jobs.
69	We received a de-briefing of the Part-M Standardization Meeting (11 & 12 May 2011) and we don't really understand the need to change the system of ARC findings. We found the existing system very straight forward: Level 1 findings had to be closed before ARC issue, Level 2 findings had to be followed up for proper corrective action. Now this has to be changed to a system of Findings and observations which has the same result and so for us this mean only an unnecessary change of the existing system
71	We believe in general that further guidance on the assessments to be conducted performing airworthiness review and, for the authority, evaluating recommendation made by CAMO or authorised CS should be also provided to ensure the same approach and principles are applied carrying out those activities by either the NAA or the industry.
72	At present the controlled environment is not accepted very much in our area and we don't recommend using it, even if some executives of clubs would like to use it. Reason is, that the CAMO contract requires the owner to “present the aircraft to the approved maintenance organisation agreed with the” CAMO at due time [App. I, 5.2 – 3.]. The LBA interprets this sentence in the way that the MF-organisation has to be fixed for all scheduled maintenance before signing the contract. We have about 130 clubs with had done maintenance in their workshops before Part-M was introduced. So far 5 such workshops have been approved under our MF-organisation, spread all over Bavaria. Reason for this is, that it has become very expensive to keep such a workshop approved, because it has to be audited once a year by the organisation and biannual by the LBA. Hence there is no possibility for local maintenance in an approved organisation nobody joins the controlled environment. Helpful would be a withdrawal of the requirement for a maintenance contract and/or a less stringent demand for audits in case of ELA1 aircraft.
73	Refer to question 2 and 7
74	<p>a. CAA-NL see the purpose of the AR is to highlight whether:</p> <ol style="list-style-type: none"> ii. The a/c is in an airworthiness condition 'as is', and iii. That the CAMO and owner/operator perform their obligations properly. <p>Often maintenance is performed before the performance of the Airworthiness Review. The aircraft enters the AR clean, the obvious defects and overdue maintenance have disappeared and will not be reported on the AR Report as the items for the AR specified in M.A.710 are answered for the 'as is' situation. As CAA-NL uses the AR Report for its ACAM program, the reports do not provide a realistic presentation of what has happened during the period between the last two AR's. We suggest to amend the description of the items of M.A.710 in such a way, the resent history is included. E.g. M.A.710(a)3. All the maintenance due on the aircraft according to the approved maintenance programme has been carried <u>out on time since the last AR.</u></p>

Performance of the airworthiness review and issuance of ARC/recommendation	
	b. CAA-NL suggest to add to M.A.710(a) a check in the airworthiness review 'for aircraft not in a controlled environment, to verify that a periodic review has been performed as required per MA302(g) and that the maintenance program complies with the latest instructions promulgated by the (S)TC- holders'.
75	The privileges i.a.w. M.A.901(e) can be extended from 2730 kg up to 5700 kg for non commercial used aircrafts. There is no big difference between a high performance single engine turboprop and a twin engine turboprop or small jet at the airworthiness review. This will release the amount of work at the authorities

List of commenters

Ref nb.	Organisation	Country/ Region
1	Ballonservice & Technik	Austria
2	EC Fly	Spain
3	F. and H. (Aircraft))	the UK
4	Ted NORMAN	the UK
5	CAA Australia	Australia
6	Atlantsflug	Iceland
7	Akki Aviation	the UK
8	FFVV France	France
9	Mike VAN DER STRAATEN	the NL
10	CSE Citation Centre	the UK
11	Light Aircraft Inspection and Maintenance Services	the UK
12	AOPA Sweden	Sweden
13	AOPA UK	the UK
14	Stephan KABLITZ	Germany
15	European Gliding Union	
16	Licensed Glider Pilot	the NL
17	Cap Vol à Voile Asbl	Belgium
18	Peter HOLY	the UK
19	Steve MORLEY	the UK
20	Icelandic Civil Aviation Administration	Iceland
21	Danish Aviation Association	Denmark
22	FFVV France	France
23	British Gliding Association	the UK
24	Kristjan Sveinbjörnsson	Iceland
25	Danish Soaring Association	Denmark
26	Joachim ZANTOW	Germany
27	Cap Vol à Voile Asbl	Belgium
28	Trevor Sexton	UK
29	Alan	the UK
30	European Gliding Union	
31	LSV Solling e.V.	Germany
32	Scottish Aero Club	the UK
33	DAeC LV NRW e.V.	Germany
34	AOPA UK	the UK
35	FOCA	Switzerland
36	HB-CAMO & HB-Flugtechnik GmbH	Austria
37	SAMA (Swiss Aircraft Maintenance Association)	Switzerland
38	Swedish Transport Agency	Sweden
39	Belgian Civil Aviation Authority	Belgium

Ref nb.	Organisation	Country/ Region
40	BBAC CAMO (British Balloon and Airship Club)	the UK
41	Steirische Flugsport-Union	Austria
42	Danish Powered Flying Union	Denmark
43	AOPA Italia	Italy
44	IAOPA Europe	the UK
45	Ultramagic S.A.	Spain
46	CAA CZ	Czech Rep.
47	LBA	Germany
48	Deutscher Aero Club e.V.	Germany
49	AESA (Spanish Aviation safety Agency)	Spain
50	Royal Danish Aeroclub	Denmark
51	Holmgeir GUDMUNDSSON	Iceland
52	Austrocontrol	Austria
53	Europe Air Sports	Europe
54	European Affairs Group Safety Services Safety Regulation Group UK Civil Aviation Authority	the UK
55	EGMA European Gliders Manufacturers Association	Germany
56	LSA Project Group of the European Microlight Federation (EMF)	Finland
57	DGAC/OSAC	France
58	Light Aircraft Association	Czech Rep.
59	Soaring Club of Akureyri	Iceland
60	GIPAG - FNAM - Fédération Nationale de l'Aviation Marchande	France
61	LAMA EUROPE	Czech Rep.
62	GAMA	USA
63	Sigurður INGI JÓNSSON	Iceland
64	Icelandic Aeroclub	Iceland
65	Akademische Fliegergruppe an der Universität Karlsruhe e.V.	Germany
66	Icelandic Gliding Club	Iceland
67	LSV Solling e. V.	Germany
68	AOAPA Iceland	Iceland
69	Air Technology Belgium	Belgium
70	BBAL (Bundesverband der Betriebe der Allgemeinen Luftfahrt e.V)	Germany
71	ENAC	Italy
72	LVB Prüfororganisation	Germany
73	AOPA NL	Netherlands
74	CAA NL	Netherlands
75	AIRKO	Germany