



Notice of Proposed Amendment 2015-08

'Light Part-M'

RMT.0547 — 9.7.2015

EXECUTIVE SUMMARY

This Notice of Proposed Amendment (NPA) addresses a proportionality issue related to the requirements imposed on the lighter end of the General Aviation community.

The objective of this NPA is to propose a 'Light Part-M' with requirements proportional to the significantly lower complexity and associated risks of the lighter end of the General Aviation community, and as clear and simple as possible in order to facilitate implementation.

Further alleviations to those proposed during Phase I of the 'Part-M General Aviation Task Force' have been proposed, after evaluating possible options within the limits of Regulation (EC) No 216/2008 (the EASA Basic Regulation). These alleviations include, among other aspects:

- Maintenance programmes;
- Airworthiness reviews;
- Defects deferment; and
- Guidance for Time Between Overhaul (TBO) extensions.

This NPA affects the lighter end of the General Aviation community, including aircraft owners/operators, independent certifying staff, maintenance organisations, Continuing Airworthiness Management Organisations (CAMOs) and competent authorities overseeing these aircraft and activities.

Applicability		Process map	
Affected regulations and decisions:	Commission Regulation (EU) No 1321/2014; Decision 2003/19/RM.	Concept Paper:	No
Affected stakeholders:	Low end of the General Aviation community, including aircraft owners/operators, independent certifying staff, maintenance organisations, Continuing Airworthiness Management Organisations (CAMOs) and competent authorities overseeing these aircraft and activities.	Terms of Reference:	2.7.2015
Driver/origin:	Proportionality	Rulemaking group:	No
Reference:	None	RIA type:	Light
		Technical consultation during NPA drafting:	Yes (Task Force)
		Duration of NPA consultation:	3 months
		Review group:	No
		Focussed consultation:	Yes (Task Force)
		Publication date of the Opinion:	2016/Q2
		Publication date of the Decision:	Once the rules are adopted by the Commission



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1. Procedural information

1.1. The rule development procedure

The European Aviation Safety Agency (hereinafter referred to as the 'Agency') developed this NPA in line with Regulation (EC) No 216/2008¹ (hereinafter referred to as the 'Basic Regulation') and the Rulemaking Procedure².

This rulemaking activity will be included into the Agency's Integrated Programme for 2016–2020 under RMT.0547.

The text of this NPA has been developed by the Agency based on the input of the 'Part-M General Aviation Task Force' which included, in addition to that of the Agency, participation of the following organisations:

- Austro Control (Austrian CAA);
- DGAC (French CAA);
- AEI (Aircraft Engineers International);
- EAS (Europe Air Sports);
- ECOGAS (European Council of General Aviation Support);
- EGAMA (European General Aviation Manufacturers Association);
- ESM Association (European Sailplane Manufacturers Association);
- EHA (European Helicopter Association);
- GAMA (General Aviation Manufacturers Association);
- IAOPA (International Council of Aircraft Owner and Pilot Associations); and
- LAMA Europe (Light Aircraft Manufacturers Association Europe).

Furthermore, specific participation from the balloon community was provided by:

- European Ballooning Federation (EBF);
- Cameron Balloons;
- Kubicek Balloons;
- UK CAA; and
- Austro control (Austrian CAA).

This NPA is hereby submitted for consultation of all interested parties.

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

² The Agency is bound to follow a structured rulemaking process as required by Article 52(1) of the Basic Regulation. Such process has been adopted by the Agency's Management Board and is referred to as the 'Rulemaking Procedure'. See Management Board Decision 01-2012 of 13 March 2012 concerning the procedure to be applied by the Agency for the issuing of opinions, certification specifications and guidance material (Rulemaking Procedure).



The process map on the title page contains the major milestones of this rulemaking activity to date and provides an outlook of the timescale of the next steps.

1.2. The structure of this NPA and related documents

Chapter 1 of this NPA contains the procedural information related to this task. Chapter 2 (Explanatory Note) explains the core technical content. Chapter 3 contains the proposed text for the new requirements. Chapter 4 contains the Regulatory Impact Assessment (RIA) showing which options were considered and what impacts were identified, thereby providing the detailed justification for this NPA.

1.3. How to comment on this NPA

Please submit your comments using the automated **Comment-Response Tool (CRT)** available at <http://hub.easa.europa.eu/crt/>³.

The deadline for submission of comments is **9 October 2015**.

1.4. The next steps in the procedure

The Agency will publish the CRD concurrently with the related Opinion.

The Opinion, containing the proposed changes to EU regulations, will be addressed to the European Commission, which shall use it as a technical basis to prepare a legislative proposal.

The Decision containing Acceptable Means of Compliance (AMC) and Guidance Material (GM) will be published by the Agency when the related Implementing Rule(s) are adopted by the European Commission.

³ In case of technical problems, please contact the CRT webmaster (crt@easa.europa.eu).



2. Explanatory Note

2.1. Overview of the issues to be addressed

Following a survey letter the Agency sent to stakeholders and NAAs on 4 July 2011 and a workshop organised in Cologne on 27 October 2011, the Agency decided to set up a 'Part-M General Aviation Task Force' representing the diversity of General Aviation sectors, with the objective of discussing appropriate actions that would reduce the burden on the General Aviation community. Two separate phases were established:

- Phase I: This phase covered a first set of alleviations for which an extensive RIA was not required. (Maintenance Programmes and Airworthiness Reviews)
- Phase II: This phase covers other areas where further action was needed (rulemaking, standardisation, change management, etc.) and where more technical discussions were needed.

Phase I resulted in the Agency issuing Opinion No 10/2013 in October 2013. Based on that Opinion, the Commission proposed a legislative text to the Member States which was favourably voted in July 2014 and which is expected to be adopted by the Commission during the summer of 2015.

After issuing the above-mentioned Opinion, the Agency started discussing with the 'Part-M General Aviation Task Force' other issues to be addressed during Phase II, such as:

- the need to extend the alleviations agreed during Phase I (which were mostly applicable to ELA1 aircraft not used in commercial operations) to a wider category of aircraft;
- granting more privileges to individuals, such as for example the possibility to perform airworthiness reviews and issue Airworthiness Review Certificates (ARCs); and
- simplification of the requirements for defect deferment.

In addition, it was made crystal clear by all the members of the 'Part-M General Aviation Task Force' that there was a need to develop a 'Light Part-M', completely independent from Part-M.

This need for a 'Light Part-M' was, later on, very strongly voiced by the industry during the EASA Annual Safety Conference on General Aviation held in Rome on 15 and 16 October 2014. It was at that conference where the Agency's Executive Director made the commitment that the Agency will develop a 'Light Part-M' as a matter of urgency.

2.1.1. Safety risk assessment

As already stated in the Terms of Reference for this rulemaking task, the origin of this task is the lack of proportionality of the current continuing airworthiness rules, which are seen by the General Aviation community as being too strict and a very significant burden to the development of their activities.

Although the current rules provide for a high and standardised level of safety, it can be argued that the difficulty faced in their implementation could result in regulated persons deciding to not fully comply with them. Furthermore, this burden has also an impact on the cost of flying, which typically reduces the flight time per year for pilots and may reduce their flying skills. All this certainly raises a safety concern.



It would be preferable to have simpler, clearer and more proportional rules that can be fully implemented by the regulated persons and promote flying activities, thus increasing the pilot's flying skills and increasing the level of safety.

In addition, since the lighter end of General Aviation often acts as a base for pilots to move later on into the airline industry, any improvement on their flying skills is expected to also contribute to the increase in the level of safety in the commercial air transport environment.

2.1.2. Who is affected?

The proposal included in this NPA affects the lighter end of the General Aviation community, including aircraft owners/operators, independent certifying staff, maintenance organisations, CAMOs and competent authorities overseeing these aircraft and activities.

2.1.3. How could the issue/problem evolve?

In the case of the 'do nothing' option, we will keep facing the safety risk described in Section 2.1.1. In addition, the General Aviation community would keep having very significant difficulties in performing their activities.

2.2. Objectives

The objective of this NPA is to propose a 'Light Part-M' with requirements proportional to the significantly lower complexity and associated risks of the lighter end of the General Aviation, and as clear and simple as possible in order to facilitate implementation.

Further alleviations to those proposed during Phase I of the 'Part-M General Aviation Task Force' have been proposed.

Furthermore, the following aspects linked to continuing airworthiness in General Aviation, although not directly addressed in this task, have been considered for appropriate coordination, always within the framework established by the General Aviation Road Map:

- 'Part-M General Aviation (Phase I)' (Task RMT.0463): This has already been addressed through Opinion No 10/2013, published in October 2013. The proposed text has been already voted and agreed in the EASA Committee (July 2014). It is expected to be adopted by the Commission during the summer of 2015.
- 'B2L and L Part-66 aircraft maintenance licences' (Task RMT.0135): This has already been addressed through Opinion No 05/2015, published on 22 June 2015.
- 'CS-STAN' (Task RMT.0245): An ED Decision is expected to be published in July 2015.
- 'Parts without EASA Form 1 or equivalent' (Task RMT.0018): The task is currently in progress with a working group discussing different proposals in order to issue an NPA.
- 'Technical Records' (Task RMT.0276): The task is currently in progress with a review group evaluating the comments received on NPA 2014-04.
- 'Review of the airworthiness review process' (Task RMT.0521): The task is currently in progress with a working group discussing different proposals in order to issue an NPA.



2.3. Regulatory Impact Assessment (RIA)

The 'do nothing' option would have a detrimental effect on General Aviation, as indicated in the issue analysis (Section 2.1). The following summary describes the general content of the 'Developing a Light Part-M' option and identifies its impacts versus the 'do nothing' option.

2.3.1. Description of the 'Developing a Light Part-M' option

During the discussions of the Task Force, it was agreed that the objectives of the task could be met by:

1. creating a separate 'Light Part-M' (Part-ML), independent from Part-M, which is as clear and simple as possible;
2. making Part-ML applicable to ELA2 aircraft and helicopters certified for up to 4 occupants and up to 1 200 kg Maximum Take-Off Mass (MTOM), including all types of operations;
3. including the possibility of declaration of the maintenance programme by the owner for all aircraft in the scope of Part-ML;
4. including the possibility of using Minimum Inspection Programmes instead of the data from the Design Approval Holder (DAH), for all aircraft in the scope of Part-ML;
5. developing a very simple template for the maintenance programme, applicable to all aircraft in the scope of Part-ML;
6. allowing approved maintenance organisations to perform airworthiness reviews and issue ARCs in conjunction with the 100 h/annual inspection, for all aircraft in the scope of Part-ML;
7. allowing independent certifying staff to perform airworthiness reviews and issue ARCs in conjunction with the 100 h/annual inspection, for sailplanes, balloons, hot-air airships and ELA1 aeroplanes operated under the Part-NCO rules;
8. increasing the cases where the pilot can defer defects without the intervention of certifying staff, for all aircraft in the scope of Part-ML which are operated under the Part-NCO rules; and
9. providing guidance for the extension of TBO intervals and for the deviation from other DAH's recommendations.

2.3.2. Safety impact

When analysing the impact of the proposed changes, the following have been considered in relation to the proposed changes indicated above:

- **Item 1:** The creation of a separate Part-ML containing only the requirements applicable to the lighter end of the General Aviation community is not anticipated to have any negative impact (not only on safety but also on other areas). On the contrary, the following benefits are expected:
 - It provides more clarity for stakeholders and competent authorities, facilitating its understanding and implementation and, as a consequence, raising the level of safety achieved.



- It ensures that regulatory changes being discussed for more complex aircraft can be kept away from Part-ML, alleviating any possible side effects on the lighter end of the General Aviation community.
 - It ensures that the introduction of any future SMS organisation requirements does not affect Section A of Part-ML (organisation requirements are kept in Part-M and Part-145).
- **Items 3, 4, 5 and 6:** These are alleviations which were already proposed through Opinion No 10/2013 in October 2013 (Phase I of the 'Part-M General Aviation Task Force') and already agreed in the EASA Committee of July 2014. The difference is that Opinion No 10/2013 limited most of those alleviations to only ELA1 aircraft not used in commercial operations, whereas the proposal in this NPA expands its applicability to a larger number of aircraft and types of operations (**those indicated under item 2 of Section 2.3.1**).

When extending the scope, the following have been considered:

- The amendments proposed during Phase I already provided an acceptable level of safety, as agreed by the Member States during the comitology process.
- The expansion of applicability, as proposed through this NPA, from ELA1 to ELA2, is not expected to deteriorate such level of safety for the following reasons:
 - The data available from the register of some Member States shows that the increase in the number of affected aircraft (when moving from ELA1 to ELA2 and including the affected helicopters) is about 25 %. This means that the majority of aircraft were already covered during Phase I.

France:

- 6 370 ELA1 aircraft (including 970 balloons).
- 1 380 ELA2 aircraft which are not ELA1 (including 370 balloons).
- 320 piston-engine helicopters.

UK:

- 1 289 ELA1 balloons.
- 220 ELA2 balloons which are not ELA1.
- 484 helicopters up to 1 200 kg.
- 5 272 ELA1 aircraft (excluding balloons and helicopters).
- 962 ELA2 aircraft which are not ELA1 (excluding balloons and helicopters).

The Agency would welcome feedback with data from other Member States.

- The consequences on uninvolved third parties of an accident of an ELA2 aircraft larger than ELA1 are not expected to be much different from those stemming from an accident of an ELA1 aircraft. Similar conclusions can be reached for an accident involving helicopters certified for up to 4 occupants and up to 1 200 kg MTOM.



- Regarding the persons flying on the aircraft:
 - The pilot (as well as the owner/operator) are fully aware of whether the aircraft follows Part-M or Part-ML since this is stated in the Maintenance Programme and in the Airworthiness Review Certificate (ARC).
 - In the case of commercial operations where passengers may be involved, it is expected that these passengers are already aware that the level of safety provided by these aircraft (typically on leisure activities) cannot be identical to that of airline operators.

Nevertheless, the Agency is interested in receiving specific feedback on the following:

1. Whether the aircraft should be marked (with a placard, for example) indicating that the aircraft is subject to the alleviated continuing airworthiness requirements of the Part-ML.
2. Whether the passengers should be informed (and how) about this fact.

- **Items 7 and 8:** These alleviations grant more privileges related to the determination of the airworthiness of the aircraft to individuals such as independent certifying staff and pilots. In order to limit the risks, these alleviations have been limited to aircraft operated under Part-NCO rules until experience is obtained through implementation of the proposed changes. Furthermore, in the particular case of item 7, it has been limited to sailplanes, balloons, hot-air airships and ELA1 aeroplanes.
- **Item 9:** This guidance is expected to help owners, maintenance organisations, CAMOs and competent authorities in order to make an informed risk-based decision when evaluating possible deviations from the DAH's recommendations.

2.3.3. Environmental impact

No environmental impact is anticipated.

2.3.4. Social and economic impact

The proposed changes aim to promote the growth of the lighter end of the General Aviation community by:

- alleviating the requirements imposed on owners/operators of this category of aircraft;
- facilitating the understanding and implementation of the rule, both by stakeholders and competent authorities;
- granting more privileges to individuals, such as:
 - declaration of the maintenance programme by the owner/operator for all aircraft within the scope of Part-ML (in Phase I of the 'Part-M General Aviation Task Force', this was only possible for ELA1 aircraft not used in commercial operations);
 - airworthiness reviews and issue of the ARC performed by independent certifying staff; and
 - deferment of certain defects by the pilot; and



- granting more privileges to maintenance organisations such as the performance of airworthiness reviews and the issue of the ARC for all aircraft within the scope of Part-ML (in Phase I of the ‘Part-M General Aviation Task Force’, this was only possible for ELA1 aircraft not used in commercial operations).

These new privileges granted to individuals and maintenance organisations should reduce the cost of ownership of aircraft, likely allowing an increase in the utilisation of aircraft and promoting the businesses of manufacturers, maintenance organisations and CAMOs. Nevertheless, this reduction in the cost of ownership can only be fully achieved if Member States ensure that this increase of privileges for individuals is not impaired by an inadequate system of fees & charges.

On the other hand, these new privileges also produce some negative effects on certain sectors. For example:

- Maintenance organisations would obtain more privileges related to airworthiness reviews to the detriment of CAMOs and competent authorities.
- Independent certifying staff would obtain more privileges related to airworthiness reviews to the detriment of maintenance organisations, CAMOs and competent authorities.
- Pilots would obtain more privileges related to deferment of defects to the detriment of independent certifying staff and maintenance organisations.

The negative effect on maintenance organisations and CAMOs, both from the economic and employment point of view, is very difficult to quantify for the following reasons:

- The proposed alleviations should increase the level of activity in general due to expected higher utilisation of aircraft. This will not only benefit owners/operator but also maintenance organisations and CAMOs.
- Part of the airworthiness review activities performed by CAMOs will likely be performed by maintenance organisations and individuals.
- Part of the airworthiness review activities performed by maintenance organisations (they already got some transfer of activities from CAMOs) will likely be performed by individuals.

The effect on competent authorities will likely be considered by some of them as positive, since they would rather prefer to focus their limited resources on more safety critical activities, instead of doing airworthiness reviews on light aircraft. Other competent authorities will likely see the impact as negative because of the loss of revenue, although it could be compensated by the new activities they could perform.

2.3.5. General aviation and proportionality issues

The main purpose of this NPA is to ensure safe and proportionate rules for the lighter end of General Aviation. This objective is achieved by:

- granting more privileges to individuals, such as:
 - declaration of the maintenance programme by the owner/operator for all aircraft within the scope of Part-ML (in Phase I of the ‘Part-M General Aviation Task Force’ this was only possible for ELA1 aircraft not used in commercial operations);



- airworthiness reviews and issue of the ARC performed by independent certifying staff; and
 - deferment of certain defects by the pilot; and
- granting more privileges to maintenance organisations such as the performance of airworthiness reviews and the issue of the ARC for all aircraft within the scope of Part-ML (in Phase I of the ‘Part-M General Aviation Task Force’, this was only possible for ELA1 aircraft not used in commercial operations).

Please refer to the alleviations described under Section 2.3.1 ‘Description of the “Developing a Light Part-M” option’ and the considerations exposed under Section 2.3.4 ‘Social and economic Impact’.

2.3.6. Impact on ‘better regulation’ and harmonisation

The proposed changes:

- take the opportunity to simplify the existing rules and introduce ‘smart regulation in line with EU requirements’⁴;
- do not have an impact on Member States’ obligations towards ICAO; and
- do not affect existing bilateral agreements.

2.3.7. Conclusion

The ‘Light Part-M’ option achieves the objective of this NPA, i.e. propose requirements proportional to the significantly lower complexity and associated risks of the lighter end of General Aviation, and as clear and simple as possible in order to facilitate implementation.

Further alleviations to those proposed during Phase I of the ‘Part M General Aviation Task Force’ have been proposed, covering, among other aspects:

- Maintenance programmes
- Airworthiness reviews
- Deferment of defects
- Guidance for Time Between Overhaul Extensions (TBO)

Stakeholders are kindly invited to provide data on economic impacts introduced by these draft rules and any other quantitative information they may find necessary to bring to the attention of the Agency.

2.4. Overview of the proposed amendments

The amendments proposed through this NPA have obtained the support of the members of the ‘Part-M General Aviation Task Force’, being regarded as a very significant improvement compared to the current requirements.

The proposed amendments have been developed taking into account the limitations imposed by the Basic Regulation, such as:

⁴ http://ec.europa.eu/smart-regulation/index_en.htm



- the need to have maintenance performed at an approved maintenance organisation;
- the need to have an organisation responsible for the continuing airworthiness management in the case of commercial operations;
- the need to maintain the aircraft in accordance with a maintenance programme; and
- the fact that only a limited number of balloons can be placed in Annex II of the Basic Regulation, excluding them from the EU regulations.

Nevertheless, the proposed amendments try to reduce the impact of such requirements by, for example:

- allowing the declaration of the maintenance programme by the owner/operator, without involvement of the competent authority; and
- creating a very simple template for the maintenance programme.

In addition, the Agency has tried to keep certain provisions in order to facilitate the transfer of aircraft between Member States, such as for example the requirement to have the airworthiness review documented in a standardised format (ARC).

Certainly, it could have been possible, as requested by some members of the Task Force, to eliminate the ARC and document the airworthiness review by adding a statement to the Certificate of Release to Service (CRS) issued for the 100 h/annual inspection. However, the Agency believes that this could potentially create problems when the documents are reviewed by the competent authority for the purpose of accepting the transfer of the aircraft from another Member State, for the following reasons:

- The CRS does not have a standardised format (sometimes it is just a signature in the logbook, other times it is a separate document with no predefined format).
- There could be cases where the 100 h/annual inspection is not performed together with an airworthiness review; for instance in the case of aircraft with high utilisation (more than 100 h per year).

All this could raise questions as to whether a particular CRS statement includes the airworthiness review or not.

Based on the above, several members of the Task Force are of the opinion that the requirements could still be further simplified, for example, by amending the Basic Regulation or by eliminating the need for an ARC. In order to be fully transparent, the Agency has included in Section 5. 'Appendices', the vision and concerns of some of the members of the Task Force.

Stakeholders and competent authorities are welcome to provide feedback on the issues raised in those Appendices.

In addition, the Agency is interested in receiving specific feedback on the following proposals:

1. Eliminate the ARC and replace it by an additional statement included in the CRS of the 100h/annual inspection.
2. The need to amend the Basic Regulation in order to:
 - eliminate the need for a maintenance programme;



- include certain categories of balloons (and maybe other aircraft) in Annex II of the Basic Regulation; and
- eliminate the need for an organisation managing the continuing airworthiness of aircraft involved in commercial operations (this organisation, in the Implementing Rules, is called CAMO).

Concerning the changes proposed in this NPA to Commission Regulation (EU) No 1321/2014⁵ (hereinafter referred to as the ‘Continuing Airworthiness Regulation’) as well as to the associated AMC/GM, they are the following:

1. Proposal for a separate Part-ML (also referred to as ‘Light Part-M’)

A new Annex VI (Part-ML) is proposed to be added to the Continuing Airworthiness Regulation, including the following features:

- Owners/operators can choose whether to apply Part-M or Part-ML. They will identify their selection by ticking the appropriate boxes in the maintenance programme and in the ARC. This will allow involved parties to know whether the aircraft complies with Part-M or Part-ML, which will be essential in order to define the scope of the oversight/audits which will take place during airworthiness reviews and other inspections performed by the competent authorities.
- In terms of aircraft categories, Part-ML is applicable to:
 - ELA2 aircraft; and
 - helicopters certified for up to 4 occupants and up to 1 200 kg MTOM.

This applicability has been introduced through a new paragraph 4 in Article 3 of the Continuing Airworthiness Regulation.

NOTE: The definition of ELA2 aircraft already includes all ELA1 aircraft.

- In terms of types of operations, Part-ML is applicable to both private and commercial operations (including also commercial air transport). The Agency has decided not to exclude commercial operations because this would create a significant problem for those aircraft performing a mixed operation (commercial and non-commercial), since their continuing airworthiness regime would be continuously changing from Part-M to Part-ML and vice versa.

Nevertheless, since point 8(g) of Annex IV to the Basic Regulation imposes specific requirements for aircraft involved in commercial operations, specific requirements have been introduced in Part-ML for this type of operations.

It is important to note here that, in order to avoid discussions on the term ‘commercial operations’ (defined in the Basic Regulation), the Agency has decided not to use this term in Part-ML and has replaced it by a reference to Annex VII (Part-NCO) to Commission Regulation (EU) No 965/2012⁶. As a consequence, once the owner/operator has agreed under which rules the aircraft operates (Part-NCO or other than Part-NCO), this will drive the particular

⁵ Commission Regulation (EU) No 1321/2014 of 26 November 2014 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks (OJ L 362, 17.12.2014, p. 1).

⁶ Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 296, 25.10.2012, p. 1).



requirements of Part-ML which will apply. Those requirements deriving from point 8(g) of Annex IV to the Basic Regulation will not be applicable to aircraft operated under Part-NCO rules.

- Part-ML contains the continuing airworthiness requirements for the affected aircraft, the obligations and responsibilities of owners/operators and which persons/organisations are entitled to perform maintenance, continuing airworthiness management activities and airworthiness reviews. However, it does not contain the organisation requirements, which remain in Annex I (Part-M) and Annex II (Part-145).

As an example, Part-ML states when there is an obligation to have maintenance performed at an approved maintenance organisation (Part-M Subpart F or Part-145) or when there is an obligation to contract a Continuing Airworthiness Management Organisation (CAMO), as is the case for aircraft not operated under Part-NCO rules. However, Part-ML does not contain the requirements to be met by those maintenance organisations and CAMOs, which remain in Part-M and Part-145 for the following reasons:

- Most, if not all, organisations dealing with aircraft which follow Part-ML will be also dealing with aircraft which follow Part-M.
 - Section A of Part-ML will not be affected by any future Safety Management System (SMS) requirements placed on organisations. Any future SMS requirement for those organisations will be introduced in Part-M and Part-145, always ensuring adequate proportionality.
- In order to keep Part-ML simple and easy to understand:

• GM ML.A.201(a) provides guidance on the easiest way to comply with Part-ML.

- Point ML.1 introduces a number of definitions and acronyms. This allows the use within the regulatory text of common terms such as CAMO, AMP, ARC, etc.
- There is a limited number of cross references to particular points of Part-M, such as:
 - Reference to M.A.306 (technical log system in the case of licensed air carriers)
 - Reference to M.A.710 (content of the airworthiness review)
 - Reference to most of the authority requirements contained in Section B
 - Reference to Appendix II: EASA Form 1
 - Reference to Appendix III: EASA Form 15c (ARC). (This form was introduced in Opinion No 10/2013 and has been amended in this NPA in order to make it consistent with the new Part-ML)
 - Reference to Appendix VII: Complex Maintenance Tasks
 - Reference to Appendix VIII: List of Pilot-owner maintenance tasks

2. Alleviations related to the maintenance programme

Building upon the alleviations already introduced during Phase I of the ‘Part-M General Aviation Task Force’, the following additional alleviations have been proposed:



- **Possibility (option) for the owner/operator to issue a declaration for their own maintenance programme (applicable to all aircraft and operations within the scope of Part-ML).**

This means that, under this option, the maintenance programme is not approved by the competent authority.

This option is possible for any maintenance programme developed under the requirements of ML.A.302(c), regardless of who has developed it (CAMO or owner). However, if the owner/operator elects to issue a declaration for the maintenance programme, the owner declares that this is the maintenance programme for the particular aircraft and he/she is fully responsible for its content and, in particular, for any deviations from the DAH's recommendations.

Furthermore, the owner can declare the maintenance programme even if the aircraft is being managed by a CAMO. In that case, the owner takes full responsibility for any deviations introduced to the maintenance programme proposed by the CAMO.

The Agency would like to note that the introduction of the 'Minimum Inspection Programme' guarantees that even if the owner decides not to implement many of the DAH's recommendations, he/she can never go below the 'Minimum Inspection Programme'.

Under this option, there is no obligation for the owner to send a copy of the declared maintenance programme to the competent authority. However, if the annual review of the maintenance programme (performed at the same time as the airworthiness review) shows discrepancies linked to deficiencies in the maintenance programme, the owner shall amend the maintenance programme accordingly.

- **Introduction of 'Minimum Inspection Programmes' which may be used as a basis for the development of the maintenance programme (applicable to all aircraft and operations affected by Part-ML, except for airships and rotorcraft due to the difficulty to establish common requirements for them).**

The 'Minimum Inspection Programmes' have been introduced in order to:

- be used in those cases where there is no maintenance schedule available from the DAH, or where such information is very limited;
- be used by the owner, as an option, instead of the maintenance schedule recommended by the DAH; and
- ensure that, when the owner/operator uses the maintenance schedule of the DAH and decides to issue a declaration for the maintenance programme without following certain DAH's recommendations, the maintenance programme still complies with a minimum to ensure adequate safety (the 'Minimum Inspection Programme').

ML.A.302(d) contains the requirements for the 'Minimum Inspection Programme'. In addition, specific tables for each one of the aircraft categories identified above will be provided in the AMC material.

This option is possible for any maintenance programme developed under the requirements of ML.A.302(c), regardless of who has developed it (CAMO or owner) and regardless of whether it is approved by the competent authority or declared by the owner.



It is important to note that the 'Minimum Inspection Programme' is just the basis to create the maintenance programme. However, the maintenance programme has to be customised to the particular aircraft configuration and type of operation in accordance with ML.A.302(c)5.

- **Introduction of a very simple template for the maintenance programme (applicable to all aircraft and operations affected by Part-ML).**

This template has been introduced in AMC ML.A.302 as an acceptable format for the maintenance programme. It has been developed in line with a proposal made by the European Ballooning Federation.

3. Alleviations related to airworthiness reviews

Building upon the alleviations already introduced during Phase I of the 'Part-M General Aviation Task Force', the following alleviations have been proposed:

- **Possibility for a Part 145 or M.A. Subpart F maintenance organisation to perform the airworthiness review and issue the corresponding ARC at the same time they perform the annual inspection contained in the maintenance programme (applicable to all aircraft and operations affected by Part-ML).**

Important aspects of this option (ref. ML.A.901(b)3) are the following:

- The maintenance organisation can perform the airworthiness review regardless of whether the maintenance programme is based on the 'Minimum Inspection Programme' or on DAH data, and regardless of whether the maintenance programme was approved by the competent authority (whether it is directly or via indirect approval by a CAMO) or declared by the owner.
 - The airworthiness review has to be performed together with the annual inspection contained in the maintenance programme and by the same person who released the annual inspection.
 - The maintenance organisation must have appropriately qualified and authorised airworthiness review staff.
- **Possibility for independent certifying staff to perform the airworthiness review and issue the corresponding ARC at the same time they perform the annual inspection contained in the maintenance programme (applicable to sailplanes, balloons, hot-air airships and ELA1 aeroplanes operated under Part-NCO rules).**

This option (ref. ML.A.901(b)4) is limited to aircraft operated under Part-NCO rules because according to ML.A.201(c)2, when the aircraft is not operated under Part-NCO rules it has to be maintained by approved maintenance organisations (this is a requirement of point 8(g) of Annex IV to the Basic Regulation).

Any holder of an appropriate Part-66 maintenance licence is granted this privilege as long as he/she is satisfied that he/she has the appropriate knowledge of the parts of Part-ML relevant to continuing airworthiness management, performance of airworthiness reviews and issue of ARCs. This knowledge can be obtained through self-study, training or experience. This privilege is valid for aircraft registered in any Member State.



For those cases where a Part-66 licence does not exist (such as the current case of sailplanes, balloons, airships and ELA1 aeroplanes until the L-licence is available), the independent certifying staff will need to hold a qualification valid in the State of Registry. This means that the privilege to perform airworthiness reviews and issue ARCs will be limited to aircraft registered in such Member State and will not benefit from mutual recognition when the aircraft is transferred to another Member State.

4. Alleviations related to the deferment of defects

ML.A.403 provides for the following:

- Defects on non-required aircraft equipment may be deferred by the pilot;
- Defects affecting required aircraft equipment may be deferred by the pilot using the Minimum Equipment List (MEL), if available. Otherwise, they can only be deferred by certifying staff.
- Other defects (such as a missing rivet, a dent on the skin, etc.) may be deferred by the pilot with the agreement of the owner (or the contracted CAMO, if applicable) if no certifying staff is available and the aircraft is operated under Part-NCO rules. Otherwise, these defects can only be deferred by certifying staff.

5. Guidance for TBO extensions (and other deviations from the DAH's recommendations)

AMC ML.A.302(c) introduces guidance to be considered when evaluating possible deviations from the DAH's recommendations. This guidance takes a risk-based approach, considering aspects such as the operation of the aircraft, the type of aircraft, the hours/years in service, compensating measures, maintenance regime, etc.

This information may be useful for CAMOs and competent authorities when developing and approving maintenance programmes. It may also be useful for the owner in order to take an informed decision before introducing deviations from the DAH's recommendations. Nevertheless, as allowed by ML.A.302(c)6 and explained in GM ML.A.302, when the owner issues a declaration for the maintenance programme, he/she does not need to justify such deviations.



3. Proposed amendments

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

- (a) deleted text is marked with ~~strike through~~;
- (b) new or amended text is highlighted in grey;
- (c) an ellipsis (...) indicates that the remaining text is unchanged in front of or following the reflected amendment.

3.1. Draft Regulation (Draft EASA Opinion)

3.1.1. Changes to Regulation (EU) No 1321/2014

Article 3

Continuing airworthiness requirements

1. The continuing airworthiness of aircraft and components shall be ensured in accordance with the provisions of Annex I (Part-M).
2. Organisations and personnel involved in the continuing airworthiness of aircraft and components, including maintenance, shall comply with the provisions of Annex I (Part-M) and where appropriate those specified in Articles 4 and 5.
3. By derogation from paragraph 1, the continuing airworthiness of aircraft holding a permit to fly shall be ensured on the basis of the specific continuing airworthiness arrangements as defined in the permit to fly issued in accordance with Annex I (Part-21) to Commission Regulation (EU) No 748/2012.
4. By derogation from paragraphs 1 and 2, compliance with Annex I (Part-M) may be replaced by compliance with Annex VI (Part-ML) for:
 - (a) ELA2 aircraft.
 - (b) rotorcraft certified for a maximum of up to 4 occupants and up to 1 200 kg MTOM.

3.1.2. Changes to Annex I (Part-M) to Regulation (EU) No 1321/2014

Appendix III

Airworthiness Review Certificate – EASA Form 15

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EASA Form 15b Issue 3

...

EASA Form 15a Issue 3



[MEMBER STATE]

A Member of the European Union (*)

AIRWORTHINESS REVIEW CERTIFICATE

(for ELA2 aircraft and for rotorcraft certified for a maximum of up to 4 occupants and up to 1 200 kg MTOM)

ARC reference:

Pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council for the time being into force, the following (mark as applicable):

- Competent authority of a Member State, or
- Continuing airworthiness management organisation approved in accordance with Section A of Subpart G of Annex I (Part-M) to Commission Regulation (EU) No 1321/2014, or
- Maintenance organisation approved in accordance with Section A of Subpart F of Annex I (Part-M) to Commission Regulation (EU) No 1321/2014, or
- Maintenance organisation approved in accordance with Section A of Annex II (Part-145) to Commission Regulation (EU) No 1321/2014, or
- Certifying staff holding a Part-66 licence and in compliance with point ML.A.901(b)3 of Annex VI (Part-ML) to Commission Regulation (EU) No 1321/2014

[NAME OF THE COMPETENT AUTHORITY]

or

[NAME OF APPROVED ORGANISATION AND ADDRESS]

Approval reference: [MEMBER STATE CODE]. [MG or MF or 145].[NNNN].

or

[FULL NAME OF THE CERTIFYING STAFF]

Part-66 licence number (or national equivalent): xxxxx

hereby certifies that it has performed an airworthiness review in accordance with point M.A.710 of Annex I to Commission Regulation (EU) No 1321/2014 on the following aircraft :

Aircraft manufacturer:.....

Manufacturer's designation:.....

Aircraft registration:.....

Aircraft serial number:.....

Applicable continuing airworthiness requirements (mark as applicable):

Part-ML

Part-M



and this aircraft is considered airworthy at the time of the review.

Date of issue: Date of expiry:

Airframe Flight Hours (FH) at date of issue (**):

Signed: Authorisation No (if applicable):

1st Extension: The aircraft (mark as applicable)

has remained in a controlled environment in accordance with point M.A.901 of Annex I to Commission Regulation (EU) No 1321/2014 for the last year, or

complies with the conditions of point M.L.A.901(c) of Annex VI to Commission Regulation (EU) No 1321/2014.

The aircraft is considered to be airworthy at the time of the issue.

Date of issue: Date of expiry:

Airframe Flight Hours (FH) at date of issue (**):

Signed: Authorisation No:

Company Name: Approval reference:

2nd Extension: The aircraft (mark as applicable)

has remained in a controlled environment in accordance with point M.A.901 of Annex I to Commission Regulation (EU) No 1321/2014 for the last year, or

complies with the conditions of point M.L.A.901(c) of Annex VI to Commission Regulation (EU) No 1321/2014.

The aircraft is considered to be airworthy at the time of the issue.

Date of issue: Date of expiry:

Airframe Flight Hours (FH) at date of issue (**):

Signed: Authorisation No:

Company Name: Approval reference:

(*) Delete for non-EU Member States

(**) Except for balloons and airships

EASA Form 15c Issue 2



3.1.3. New Annex VI (Part-ML) to Regulation (EU) No 1321/2014

ANNEX VI

(Part-ML)

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ML.1 General

For the purpose of this part, the following definitions and acronyms shall apply:

- (a) AMP: An aircraft maintenance programme complying with the requirements of point ML.A.302 of this Part.
- (b) AMP declaration: a declaration issued by the owner of an aircraft, in accordance with point ML.A.302(c)6, for the aircraft maintenance programme applicable to its aircraft.
- (c) ARC: An airworthiness review certificate issued in compliance with point ML.A.901(a).
- (d) CAMO: A continuing airworthiness management organisation approved in accordance with Section A of Subpart G of Part-M.
- (e) CRS: Certificate of Release to Service
- (f) DAH: Design Approval Holder



- (g) Independent certifying staff: certifying staff not working on behalf of an approved maintenance organisation, and being in compliance with either:
- (1) the requirements of Part-66, or
 - (2) for aircraft for which Part-66 is not applicable, the certifying staff requirements in force in the State of Registry of the aircraft.
- (h) Maintenance Organisation: A maintenance organisation approved in accordance with either:
- (1) Section A of Subpart F of Part-M, or
 - (2) Section A of Part-145.
- (i) Owner: The person responsible for the continuing airworthiness of the aircraft. This includes:
- (1) the registered owner of the aircraft, or
 - (2) the lessee in the case of a leasing contract, or
 - (3) the operator in the case of aircraft not operated under Part-NCO rules.
- (j) Part-M: Annex I to Commission Regulation (EU) No 1321/2014.
- (k) Part-145: Annex II to Commission Regulation (EU) No 1321/2014.
- (l) Part-66: Annex III to Commission Regulation (EU) No 1321/2014.
- (m) Part-21: Annex I to Commission Regulation (EU) No 748/2012.
- (n) Part-NCO: Annex VII to Commission Regulation (EU) No 965/2012.

This Part applies to:

- (a) ELA2 aircraft, and
- (b) rotorcraft certified for a maximum of up to 4 occupants and up to 1 200 kg MTOM.

For the purpose of this Part, the competent authority shall be:

- (a) for the oversight of the continuing airworthiness of individual aircraft and the issue of the ARC, the authority designated by the Member State of Registry.
- (b) for the approval of the AMP, the authority designated by the Member State of Registry unless agreed differently with the Member State of the Operator, if applicable.

SECTION A

TECHNICAL REQUIREMENTS

SUBPART A

GENERAL

ML.A.101 Scope

This Section establishes the measures to be taken to ensure that the airworthiness of the aircraft is maintained, including its maintenance. It also specifies the conditions to be met by the persons or organisations involved in such activities.



SUBPART B
ACCOUNTABILITY

ML.A.201 Responsibilities

- (a) The owner is responsible for the continuing airworthiness of the aircraft and shall ensure that no flight takes place unless:
- (1) the aircraft is maintained in an airworthy condition; and
 - (2) any operational and emergency equipment fitted is correctly installed and serviceable or clearly identified as unserviceable; and
 - (3) the airworthiness certificate remains valid; and
 - (4) the maintenance of the aircraft is performed in accordance with the AMP specified in ML.A.302.
- (b) Any person or organisation performing maintenance shall be responsible for the tasks performed.
- (c) For aircraft not operated under Part-NCO rules, the operator shall:
- (1) be approved as a CAMO for the management of the continuing airworthiness of its aircraft, or contract such an organisation; and
 - (2) ensure that all maintenance is performed by approved maintenance organisations; and
 - (3) ensure that paragraph (a) is satisfied.
- (d) For aircraft operated under Part-NCO rules, in order to satisfy the requirement of paragraph (a), the owner of an aircraft may, as an option, contract the tasks associated with continuing airworthiness to a CAMO. In this case, the CAMO assumes responsibility for the proper accomplishment of these tasks. The contract described in Appendix I to Part-M shall be used in this case.
- (e) The owner is responsible for granting the competent authority access to the aircraft to determine continued compliance with this Part-ML.

ML.A.202 Occurrence reporting

- (a) Any person or organisation responsible in accordance with point ML.A.201 shall report to the competent authority designated by the State of Registry, the organisation responsible for the type design or supplemental type design and, if applicable, the Member State of the Operator, any identified condition of an aircraft or component which endangers flight safety.
- (b) Reports shall be made in a manner established by the Agency and contain all pertinent information about the condition known to the person or organisation.
- (c) Where the person or organisation maintaining the aircraft is contracted by an owner to carry out maintenance, the person or the organisation maintaining the aircraft shall also report to the owner or the CAMO any such condition affecting the aircraft or component.
- (d) Reports shall be made as soon as practicable, but in any case within 72 hours of the person or organisation identifying the condition to which the report relates.



SUBPART C**CONTINUING AIRWORTHINESS****ML.A.301 Continuing airworthiness tasks**

The aircraft continuing airworthiness and the serviceability of both operational and emergency equipment shall be ensured by:

- (a) the accomplishment of pre-flight inspections;
- (b) the rectification in accordance with the data specified in point ML.A.304 and/or point ML.A.401, as applicable, of any defect and damage affecting safe operation;
- (c) the accomplishment of all maintenance, in accordance with the AMP;
- (d) the accomplishment of any applicable:
 - (1) Airworthiness Directive (AD);
 - (2) operational directive with a continuing airworthiness impact;
 - (3) continued airworthiness requirement established by the Agency; and
 - (4) measure mandated by the competent authority in immediate reaction to a safety problem;
- (e) the accomplishment of modifications and repairs in accordance with ML.A.304; and
- (f) maintenance check flights when necessary.

ML.A.302 Aircraft maintenance programme

- (a) The maintenance of each aircraft shall be organised in accordance with an AMP.
- (b) The AMP and any subsequent amendments shall be approved by the competent authority, approved by a CAMO or declared by the owner.
- (c) The AMP shall indicate that it has been developed in accordance with Part-ML and:
 - (1) shall clearly identify the owner and the specific aircraft to which it refers, including any installed engine and propeller, as applicable;
 - (2) shall include:
 - (i) the tasks/inspections contained in the applicable 'Minimum Inspection Programme' defined in point (d) below; or:
 - (ii) the instructions for continuing airworthiness issued by the DAH;
 - (3) may include additional or alternate instructions proposed by the owner, CAMO or maintenance organisation once approved or declared in accordance with point (b), but shall not be less restrictive than the applicable 'Minimum Inspection Programme';
 - (4) shall include all the mandatory continuing airworthiness information, such as repetitive ADs, the Airworthiness Limitation Section (ALS) of the Instructions for Continued



Airworthiness (ICA) or specific maintenance requirements contained in the Type Certificate Data Sheet (TCDS);

- (5) in addition, shall identify any additional maintenance tasks to be performed because of the specific aircraft type, aircraft configuration and type and specificity of operation. The following elements shall be taken into consideration as a minimum:
- Specific installed equipment and modifications of the aircraft.
 - Repairs incorporated in the aircraft.
 - Life Limited components and flight safety-critical components.
 - Maintenance recommendations, such as Time Between Overhaul (TBO) intervals, recommended through service bulletins, service letters, and other non-mandatory service information.
 - Applicable operational directives/requirements related to the periodic inspection of certain equipment.
 - Special operational approvals.
 - Use of the aircraft and operational environment.
 - Pilot-owner maintenance (if applicable).
- (6) when declared by the owner, shall contain a signed statement where the owner declares that this is the AMP for the particular aircraft registration and he/she declares to be fully responsible for its content and, in particular, for any deviations from the DAH's recommendations.
- (7) shall be reviewed at least annually. This review of the AMP shall be performed either:
- in conjunction with the airworthiness review of the aircraft by the person who performs such airworthiness review; or
 - by the CAMO managing the continuing airworthiness of the aircraft in those cases where the review of the AMP is not performed in conjunction with an airworthiness review.

If the review shows discrepancies on the aircraft linked to deficiencies in the content of the AMP, the AMP shall be amended accordingly. The person performing the review shall inform the competent authority of the Member State of Registry in those cases where he/she does not agree with the measures taken by the owner in order to amend the AMP.

(d) A 'Minimum Inspection Programme':

- (1) shall contain the following inspection intervals:
- for aeroplanes, Touring Motor Gliders (TMG) and balloons, every annual or 100 h interval, whichever comes first. A tolerance of 1 month or 10 h may be applied to that interval. The next interval shall be calculated from the time the inspection takes place; and



- for sailplanes and powered sailplanes other than TMG, every annual interval. A tolerance of 1 month may be applied to that interval. The next interval shall be calculated from the time the inspection takes place; and
- (2) shall contain the following, as applicable to the aircraft type:
 - Servicing tasks as required by the DAH's requirements.
 - Inspection of markings.
 - Review of weighing records and weighing in accordance with Regulation (EU) No 965/2012.
 - Operational test of transponder (if existing).
 - Operational test of the pitot-static system.
 - In the case of aeroplanes:
 - Operational checks for power and rpm, magnetos, fuel and oil pressure, engine temperatures.
 - For engines equipped with automated engine control, the published run-up procedure.
 - For dry-sump engines, engines with turbochargers and liquid-cooled engines, an operational check for signs of disturbed fluid circulation.
 - Inspection of the condition and attachment of the structural items, systems and components corresponding to the following areas:
 - For aeroplanes:

Airframe, cabin and cockpit, landing gear, wing and centre section, flight controls, empennage, avionics and electrics, powerplant, clutches and gearboxes, propeller and miscellaneous systems such as the ballistic rescue system.
 - For sailplanes and powered sailplanes:

Airframe, cabin and cockpit, landing gear, wing and centre section, empennage, avionics and electrics, powerplant (when applicable) and miscellaneous systems such as removable ballast and drag chute and controls.
 - For hot-air balloons:

Envelope, burner, basket, fuel containers, equipment and instruments.
 - For gas balloons:

Envelope, basket, equipment and instruments.

Until such time as this Part-ML specifies a 'Minimum Inspection Programme' for airships and rotorcraft, their AMP shall comply with points (c)2(ii) and (c)3 above.



ML.A.303 Airworthiness directives

Any applicable AD must be carried out within the requirements of that AD unless otherwise specified by the Agency.

ML.A.304 Data for modifications and repairs

Damage shall be assessed and modifications and repairs carried out using, as appropriate, data:

- (a) approved by the Agency; or
- (b) approved by a Part-21 design organisation; or
- (c) contained in the certification specifications referred to in point 21A.90B 'Standard Changes' or 21A.431B 'Standard Repairs' of Part-21.

ML.A.305 Aircraft continuing airworthiness record system

- (a) At the completion of any maintenance, the CRS required by point ML.A.801 or point 145.A.50 shall be entered in the aircraft continuing airworthiness records. Each entry shall be made as soon as practicable but in no case more than 30 days after the day of the maintenance action.
- (b) The aircraft continuing airworthiness records shall consist of:
 - (1) an aircraft logbook, engine logbook(s) or engine module log cards, propeller logbook(s) and log cards, for any service life-limited component as appropriate; and
 - (2) the operator's technical log system described in M.A.306 of Part-M in the case of licensed air carriers in accordance with Regulation (EC) No 1008/2008⁷.
- (c) The aircraft type and registration mark, the date, together with total flight time and/or flight cycles and/or landings, as appropriate, shall be entered in the aircraft logbooks.
- (d) The aircraft continuing airworthiness records shall contain the current:
 - (1) status of ADs and measures mandated by the competent authority in immediate reaction to a safety problem;
 - (2) status of modifications and repairs;
 - (3) status of compliance with the AMP;
 - (4) status of service life-limited components;
 - (5) mass and balance report; and
 - (6) list of deferred maintenance.
- (e) In addition to the authorised release document, EASA Form 1 or equivalent, the following information relevant to any component installed (engine, propeller, engine module or service life-limited component) shall be entered in the appropriate engine or propeller logbook, engine module or service life-limited component log card:

⁷ Regulation (EC) No 1008/2008 of the European Parliament and of the Council of 24 September 2008 on common rules for the operation of air services in the Community (Recast) (OJ L 293, 31.10.2008, p. 3).



- (1) identification of the component; and
 - (2) the type, serial number and registration, as appropriate, of the aircraft, engine, propeller, engine module or service life-limited component to which the particular component has been fitted, along with the reference to the installation and removal of the component; and
 - (3) the date together with the component's accumulated total flight time and/or flight cycles and/or landings and/or calendar time, as appropriate; and
 - (4) the current paragraph (d) information applicable to the component.
- (f) The person responsible for the management of continuing airworthiness tasks pursuant to ML.A.201, shall control the records as detailed in this paragraph and present the records to the competent authority upon request.
- (g) All entries made in the aircraft continuing airworthiness records shall be clear and accurate. When it is necessary to correct an entry, the correction shall be made in a manner that clearly shows the original entry.
- (h) An owner shall ensure that a system has been established to keep the following records for the periods specified:
- (1) all detailed maintenance records in respect of the aircraft and any service life-limited component fitted thereto, until such time as the information contained therein is superseded by new information equivalent in scope and detail but not less than 36 months after the aircraft or component has been released to service; and
 - (2) the total time in service (hours, calendar time, cycles and landings) of the aircraft and all service life-limited components, at least 12 months after the aircraft or component has been permanently withdrawn from service; and
 - (3) the time in service (hours, calendar time, cycles and landings) as appropriate, since last scheduled maintenance of the component subjected to a service life limit, at least until the component scheduled maintenance has been superseded by another scheduled maintenance of equivalent work scope and detail; and
 - (4) the current status of compliance with the AMP such that compliance with the AMP can be established, at least until the aircraft or component scheduled maintenance has been superseded by other scheduled maintenance of equivalent work scope and detail; and
 - (5) the current status of ADs applicable to the aircraft and components, at least 12 months after the aircraft or component has been permanently withdrawn from service; and
 - (6) details of current modifications and repairs to the aircraft, engine(s), propeller(s) and any other component vital to flight safety, at least 12 months after they have been permanently withdrawn from service.

ML.A.307 Transfer of aircraft continuing airworthiness records

- (a) The owner shall ensure when an aircraft is permanently transferred from one owner to another that the ML.A.305 continuing airworthiness records and, if applicable, ML.A.306 operator's technical log are also transferred.



- (b) The owner shall ensure, when he contracts the continuing airworthiness management tasks to a CAMO, that the ML.A.305 continuing airworthiness records are transferred to the organisation.
- (c) The time periods prescribed for the retention of records shall continue to apply to the new owner or CAMO.

SUBPART D

MAINTENANCE STANDARDS

ML.A.401 Maintenance data

- (a) The person or organisation maintaining an aircraft shall only use applicable current maintenance data during the performance of maintenance.
- (b) For the purposes of this Part, applicable maintenance data is:
 - (1) any applicable requirement, procedure, standard or information issued by the competent authority or the Agency;
 - (2) any applicable AD;
 - (3) applicable instructions for continuing airworthiness, issued by type certificate holders, supplementary type certificate holders and any other organisation that publishes such data in accordance with Part 21; and
 - (4) any applicable data issued in accordance with 145.A.45(d).

ML.A.402 Performance of maintenance

- (a) All maintenance shall be performed by qualified personnel, following the methods, techniques, standards and instructions specified in the ML.A.401 maintenance data. Furthermore, an independent inspection shall be carried out after any flight-safety-sensitive maintenance task unless otherwise specified by Part-145 or agreed by the competent authority.
- (b) All maintenance shall be performed using the tools, equipment and material specified in the ML.A.401 maintenance data unless otherwise specified by Part-145. Where necessary, tools and equipment shall be controlled and calibrated to an officially recognised standard.
- (c) The area in which maintenance is carried out shall be well organised and clean in respect of dirt and contamination.
- (d) All maintenance shall be performed within the environmental limitations specified in the ML.A.401 maintenance data.
- (e) In case of inclement weather or lengthy maintenance, proper facilities shall be used.
- (f) After completion of all maintenance, a general verification must be carried out to ensure the aircraft or component is clear of all tools, equipment and any other extraneous parts and material, and that all access panels removed have been refitted.
- (g) All maintenance performed shall be properly recorded and documented.



ML.A.403 Aircraft defects

- (a) Any aircraft defect that hazards seriously the flight safety shall be rectified before further flight.
- (b) The following persons may decide that a defect does not hazard seriously the flight safety and may defer it accordingly:
- (1) Defects affecting non-required aircraft equipment may be deferred by the pilot.
 - (2) Defects affecting required aircraft equipment may be deferred by the pilot when using the minimum equipment list approved by the competent authority. Otherwise, these defects may only be deferred by authorised certifying staff.
 - (3) Defects other than those described in points (b)1 and (b)2 may be deferred by the pilot if all the following conditions are met:
 - the aircraft is operated under Part-NCO rules; and
 - authorised certifying staff is not available; and
 - the pilot defers the defect with the agreement of the aircraft owner or, if applicable, with the agreement of the contracted CAMO.Otherwise, these defects may only be deferred by authorised certifying staff.
- (c) Any aircraft defect that would not hazard seriously the flight safety shall be rectified as soon as practicable after the date the aircraft defect was first identified and within the limits specified in the maintenance data.
- (d) Any defect not rectified before flight shall be recorded in the ML.A.305 aircraft maintenance record system and shall be visible to the pilot.

SUBPART E**COMPONENTS****ML.A.501 Installation**

- (a) No component may be fitted unless it is in a satisfactory condition, has been appropriately released to service on an EASA Form 1 or equivalent and is marked in accordance with Subpart Q of Part 21 unless otherwise specified in Part-21, Part-145 or Subpart F of Part-M.
- (b) Prior to installation of a component on an aircraft, the person or approved maintenance organisation shall ensure that the particular component is eligible to be fitted when different modification and/or AD configurations may be applicable.
- (c) Standard parts shall only be fitted to an aircraft or a component when the maintenance data specifies the particular standard part. Standard parts shall only be fitted when accompanied by evidence of conformity traceable to the applicable standard.
- (d) Material being either raw material or consumable material shall only be used on an aircraft or a component when the aircraft or component manufacturer states so in relevant maintenance data or as specified in Part-145. Such material shall only be used when the material meets the required specification and has appropriate traceability. All material must be accompanied by



documentation clearly relating to the particular material and containing a conformity to specification statement plus both the manufacturing and supplier source.

- (e) In the particular case of balloons, where different combinations of baskets, burners and fuel cylinders are possible for a particular envelope, the person installing them shall ensure that:
- (1) the basket, burner and/or fuel cylinders are eligible for installation according to the TCDS; and
 - (2) the basket, burner and/or fuel cylinders are in serviceable condition and have the appropriate maintenance records.

ML.A.502 Component maintenance

- (a) Components accepted by the owner in accordance with point 21.A.307(c) of Part-21 may be maintained by any person or organisation subject to reacceptance by the owner under the conditions of 21.A.307(c).
- (b) Components shall be released in accordance with the following table:

	Released on an EASA Form 1	Released at aircraft level per ML.A.801 (not possible to issue a Form 1)
Components maintained in accordance with <u>component</u> maintenance data		
Maintenance other than overhaul	<ul style="list-style-type: none"> • B-rated (for engine) or C-rated (for other components) maintenance organisations 	<ul style="list-style-type: none"> • A-rated maintenance organisations • Independent certifying staff
Overhaul of components other than engines and propellers	<ul style="list-style-type: none"> • C-rated maintenance organisations 	Not possible
Overhaul of engines and propellers for CS-VLA, CS-22 and LSA	<ul style="list-style-type: none"> • B-rated (for engine) or C-rated (for propeller) maintenance organisations 	<ul style="list-style-type: none"> • A-rated maintenance organisations • Independent certifying staff
Overhaul of engines and propellers for other than CS-VLA, CS-22 and LSA	<ul style="list-style-type: none"> • B-rated (for engine) or C-rated (for propeller) maintenance organisations 	Not possible
Components maintained in accordance with <u>aircraft</u> maintenance data		
All components and all type of maintenance	<ul style="list-style-type: none"> • B-rated (for engine) or C-rated (for other components) maintenance organisations 	<ul style="list-style-type: none"> • A-rated maintenance organisations • Independent certifying staff



ML.A.503 Service life-limited components

- (a) Installed service life-limited components shall not exceed the approved service life limit as specified in the AMP and ADs, except as provided for in point ML.A.504(c).
- (b) The approved service life is expressed in calendar time, flight hours, landings or cycles, as appropriate.
- (c) At the end the approved service life, the component must be removed from the aircraft for maintenance, or for disposal in the case of components with a certified life limit.

ML.A.504 Control of unserviceable components

- (a) A component shall be considered unserviceable in any one of the following circumstances:
 - (1) expiry of the service life limit as defined in the AMP;
 - (2) non-compliance with the applicable ADs and other continued airworthiness requirement mandated by the Agency;
 - (3) absence of the necessary information to determine the airworthiness status or eligibility for installation;
 - (4) evidence of defects or malfunctions; and
 - (5) involvement in an incident or accident likely to affect its serviceability.
- (b) Unserviceable components:
 - (1) shall be identified as unserviceable and stored in a secure location under the control of an approved maintenance organisation or independent certifying staff until a decision is made on the future status of such component; or
 - (2) shall be identified as unserviceable by the person or organisation that declared the component unserviceable and its custody shall be transferred to the aircraft owner after reflecting such transfer in the ML.A.305 aircraft maintenance record system.
- (c) Components which have reached their certified life limit or contain a non-repairable defect or malfunction shall be classified as unsalvageable and shall not be permitted to re-enter the component supply system unless certified life limits have been extended or a repair solution has been approved according to ML.A.304.
- (d) Any person or organisation accountable under Part-M or Part-ML shall, in the case of a paragraph (c) unsalvageable component:
 - (1) retain such component in the paragraph (b) location; or
 - (2) arrange for the component to be mutilated in a manner that ensures that it is beyond economic salvage or repair before relinquishing responsibility for such component.
- (e) Notwithstanding paragraph (d), a person or organisation accountable under Part-M or Part-ML may transfer responsibility of components classified as unsalvageable without mutilation to an organisation for training or research.



SUBPART H**CERTIFICATE OF RELEASE TO SERVICE (CRS)****ML.A.801 Aircraft certificate of release to service**

- (a) A CRS shall be issued at the completion of any maintenance carried out on an aircraft.
- (b) The CRS shall only be issued when satisfied that all maintenance required has been properly carried out by:
- (1) appropriate certifying staff on behalf of the approved maintenance organisation; or
 - (2) independent certifying staff; or
 - (3) the Pilot-owner in compliance with point ML.A.803.
- (c) By derogation from point ML.A.801(b), in the case of unforeseen situations, when an aircraft is grounded at a location where no appropriately approved maintenance organisation and no appropriate certifying staff are available, the owner may authorise any person, with not less than three years of appropriate maintenance experience and holding the proper qualifications, to maintain according to the standards set out in Subpart D of this Part and release the aircraft. The owner shall, in that case:
- (1) obtain and keep in the aircraft records details of all the work carried out and of the qualifications held by the person issuing the certification; and
 - (2) ensure that any such maintenance is rechecked and released in accordance with point ML.A.801(b) at the earliest opportunity but within a period not exceeding seven days or, in the case of aircraft operated under Part-NCO rules, not exceeding thirty days; and
 - (3) notify the contracted CAMO, or the competent authority in the absence of such a contract, within seven days of the issuance of such certification authorisation.
- (d) In the case of a release to service in accordance with point ML.A.801(b)2, the independent certifying staff may be assisted in the execution of the maintenance tasks by one or more persons subject to his/her direct and continuous control;
- (e) A CRS shall contain as a minimum:
- (1) basic details of the maintenance carried out; and
 - (2) the date such maintenance was completed; and
 - (3) the identity of the organisation and/or person issuing the release to service, including:
 - (i) the approval reference of the maintenance organisation and the certifying staff issuing such a certificate; or
 - (ii) In the case of point ML.A.801(b)2 certificate of release to service, the identity and, if applicable, licence number of the independent certifying staff issuing such a certificate; and
 - (4) the limitations to airworthiness or operations, if any.



- (f) By derogation from paragraph (b) and notwithstanding the provisions of paragraph (g), when the maintenance prescribed cannot be completed, a CRS may be issued within the approved aircraft limitations. Such fact together with any applicable limitations of the airworthiness or the operations shall be entered in the aircraft CRS before its issue as part of the information required in paragraph (e)4.
- (g) A CRS shall not be issued in the case of any known non-compliance which endangers flight safety.

ML.A.802 Component certificate of release to service

- (a) A CRS shall be issued at the completion of any maintenance carried out on an aircraft component in accordance with point ML.A.502.
- (b) The authorised release certificate identified as EASA Form 1 and referred to in Appendix II to Part-M constitutes the component CRS, except when such maintenance is released at aircraft level as indicated in point ML.A.502(b).

ML.A.803 Pilot-owner authorisation

- (a) To qualify as a Pilot-owner, the person must:
- (1) hold a valid pilot licence (or equivalent) issued or validated by a Member State for the aircraft type or class rating; and
 - (2) own the aircraft, either as sole or joint owner; that owner must be:
 - (i) one of the natural persons on the registration form; or
 - (ii) a member of a non-profit recreational legal entity, where the legal entity is specified on the registration document as owner or operator, and that member is directly involved in the decision-making process of the legal entity and designated by that legal entity to carry out Pilot-owner maintenance.
- (b) For aircraft operated under Part-NCO rules, the Pilot-owner may issue a CRS after limited Pilot-owner maintenance as specified in Appendix I.
- (c) The CRS shall be entered in the logbooks and contain basic details of the maintenance carried out, the maintenance data used, the date on which that maintenance was completed and the identity, the signature and the pilot licence (or equivalent) number of the Pilot-owner issuing such a certificate.

SUBPART I

AIRWORTHINESS REVIEW CERTIFICATE

ML.A.901 Aircraft airworthiness review

To ensure the validity of the ARC, an airworthiness review of the aircraft and its continuing airworthiness records shall be carried out periodically.

- (a) An ARC valid for one year, and in the form of the EASA Form 15c described in Appendix III to Part-M, is issued on completion of a satisfactory airworthiness review.



- (b) The airworthiness review and the issuance of the ARC shall be performed in accordance with point M.A.710 of Part-M by:
- (1) the competent authority; or
 - (2) a CAMO; or
 - (3) the approved maintenance organisation performing the annual inspection contained in the AMP, while in compliance with the requirements contained in point M.A.901(l) of Part-M; or
 - (4) for sailplanes, balloons, hot-air airships and ELA1 aeroplanes, operated under Part-NCO rules, the certifying staff performing the annual inspection contained in the AMP, when:
 - (i) holding a Part-66 licence rated for the corresponding aircraft; and
 - (ii) having acquired knowledge, either by self-study, training or experience, of the parts of Part-ML relevant to continuing airworthiness management, performance of airworthiness reviews and issue of ARCs, including the applicable cross-referred parts of Part-M.

For aircraft where there is no Part-66 licence applicable, the certifying staff qualification of the State of Registry is an acceptable alternative, except that this is only valid for airworthiness reviews of aircraft registered in that Member State and the ARC will not benefit from mutual recognition when transferring the aircraft to another Member State.

Whenever circumstances reveal the existence of a potential safety threat, the competent authority shall carry out the airworthiness review and issue the ARC itself.

- (c) The validity of an ARC can be extended a maximum of two times, for a period of one year each time, by an appropriately approved CAMO, subject to the following conditions:
- (1) The aircraft has been continuously managed for the previous 12 months by this CAMO; and
 - (2) The aircraft has been maintained for the previous 12 months by approved maintenance organisations. This includes maintenance tasks referred to in point ML.A.803(b) carried out and released to service in accordance with point ML.A.801(b)2 or point ML.A.801(b)3; and
 - (3) The CAMO does not have evidence or reason to believe that the aircraft is not airworthy.

This extension by the CAMO is possible regardless of which staff/organisation described in point (b) had initially issued the ARC.

- (d) When the competent authority carries out the airworthiness review and issues the ARC itself, the owner shall provide the competent authority with:
- (1) the documentation required by the competent authority; and
 - (2) suitable accommodation at the appropriate location for its personnel; and
 - (3) when necessary, the support of appropriate certifying staff.



ML.A.902 Validity of the airworthiness review certificate

- (a) An ARC becomes invalid if:
- (1) suspended or revoked; or
 - (2) the airworthiness certificate is suspended or revoked; or
 - (3) the aircraft is not on the aircraft register of a Member State; or
 - (4) the type certificate under which the airworthiness certificate was issued is suspended or revoked.
- (b) An aircraft must not fly if the airworthiness review certificate is invalid or if:
- (1) the continuing airworthiness of the aircraft or any component fitted to the aircraft does not meet the requirements of this Part-ML; or
 - (2) the aircraft does not remain in conformity with the type design approved by the Agency; or
 - (3) the aircraft has been operated beyond the limitations of the approved flight manual or the airworthiness certificate, without appropriate action being taken; or
 - (4) the aircraft has been involved in an accident or incident that affects the airworthiness of the aircraft, without subsequent appropriate action to restore airworthiness; or
 - (5) a modification or repair is not in compliance with Part-21.
- (c) Upon surrender or revocation, the ARC shall be returned to the competent authority

ML.A.903 Transfer of aircraft registration within the EU

- (a) When transferring an aircraft registration within the EU, the applicant shall:
- (1) inform the former Member State in which Member State it will be registered; and
 - (2) then apply to the new Member State for the issuance of a new airworthiness certificate in accordance with Part 21.
- (b) Notwithstanding ML.A.902(a)(3), the former ARC shall remain valid until its expiry date.

ML.A.904 Airworthiness review of aircraft imported within the EU

- (a) When importing an aircraft from a third country onto a Member State register, the applicant shall:
- (1) apply to the Member State of Registry for the issuance of a new airworthiness certificate in accordance with the Part-21; and
 - (2) for aircraft other than new, have an airworthiness review carried out satisfactorily in accordance with point ML.A.901; and
 - (3) have all maintenance carried out to comply with the AMP.
- (b) When satisfied that the aircraft is in compliance with the relevant requirements, the competent authority, the CAMO, the maintenance organisation or the independent certifying staff, as



described in ML.A.901(b), shall issue an ARC and shall submit a copy to the Member State of Registry.

- (c) The owner shall allow access to the aircraft for inspection by the Member State of Registry.
- (d) A new airworthiness certificate will be issued by the Member State of Registry when it is satisfied the aircraft complies with the prescriptions of Part-21.

ML.A.905 Findings

- (a) A level 1 finding is any significant non-compliance with Part-ML requirements which lowers the safety standard and seriously hazards the flight safety.
- (b) A level 2 finding is any non-compliance with the Part-ML requirements which could lower the safety standard and possibly hazard the flight safety.
- (c) After receipt of notification of findings according to point ML.B.903, the person or organisation accountable as per point ML.A.201, shall define a corrective action plan and demonstrate corrective action to the satisfaction of the competent authority within a period agreed with this authority, including appropriate corrective action to prevent reoccurrence of the finding and its root cause.

SECTION B

PROCEDURE FOR COMPETENT AUTHORITIES

SUBPART A

GENERAL

ML.B.101 Scope

This Section establishes the administrative requirements to be followed by the competent authorities in charge of the application and the enforcement of Section A of this Part.

ML.B.102 Competent authority

The requirements contained in point M.B.102 of Part-M apply, except that any reference to Part-M shall be understood as applicable to Part-ML.

ML.B.104 Record-keeping

The requirements contained in point M.B.104 of Part-M apply, except that any reference to Part-M shall be understood as applicable to Part-ML.

ML.B.105 Mutual exchange of information

The requirements contained in point M.B.105 of Part-M apply.



SUBPART B**ACCOUNTABILITY****ML.B.201 Responsibilities**

The competent authorities as specified in ML.1 are responsible for conducting inspections and investigations in order to verify that the requirements of this Part are complied with.

SUBPART C**CONTINUING AIRWORTHINESS****ML.B.301 Maintenance programme**

- (a) Except for those cases where the owner has issued a declaration for the AMP in accordance with point ML.A.302(c)6, the competent authority shall verify that the AMP is in compliance with point ML.A.302.
- (b) Except where stated otherwise in ML.A.302, the AMP and its amendments shall be approved directly by the competent authority.
- (c) In the case of indirect approval, the AMP procedure shall be approved by the competent authority through the continuing airworthiness management exposition.
- (d) In order to approve an AMP according to point (b), the competent authority shall have access to all the data required in points ML.A.302(c).

ML.B.302 Exemptions

All exemptions granted in accordance with Article 14(4) of the Basic Regulation shall be recorded and retained by the competent authority.

ML.B.303 Aircraft continuing airworthiness monitoring

The requirements contained in point M.B.303 of Part-M apply, except that any reference to Part-M shall be understood as applicable to Part-ML.

ML.B.304 Revocation, suspension and limitation

The requirements contained in point M.B.304 of Part-M apply, except that any reference to Part-M shall be understood as applicable to Part-ML.

SUBPART I**AIRWORTHINESS REVIEW CERTIFICATE****ML.B.902 Airworthiness review by the competent authority**

The requirements contained in point M.B.902 of Part-M apply, except that any reference to Part-M shall be understood as applicable to Part-ML.



ML.B.903 Findings

The requirements contained in point M.B.903 of Part-M apply, except that any reference to Part-M shall be understood as applicable to Part-ML.

Appendix I**Limited Pilot-owner maintenance**

In addition to the requirements laid down in this Part, the following basic principles shall be complied with before any maintenance task is carried out by the Pilot-owner:

(a) Competence and responsibility

1. The Pilot-owner is always responsible for any maintenance that he/she performs.
2. Before carrying out any Pilot-owner maintenance tasks, the Pilot-owner must satisfy himself/herself that he/she is competent to do the task. It is the responsibility of Pilot-owners to familiarise themselves with the standard maintenance practices for their aircraft and with the AMP. If the Pilot-owner is not competent for the task to be carried out, the task cannot be released by the Pilot-owner.
3. The Pilot-owner (or his/her contracted CAMO) is responsible for identifying the Pilot-owner tasks in the AMP and for ensuring that the document is updated in a timely manner.
4. The AMP approval/declaration shall be carried out in accordance with point ML.A.302.

(b) Tasks

The Pilot-owner may carry out simple visual inspections or operations to check for general condition and obvious damage and normal operation of the airframe, engines, systems and components.

Maintenance tasks shall not be carried out by the Pilot-owner when the task:

1. is critically safety-related, whose incorrect performance will drastically affect the airworthiness of the aircraft or is a flight safety-sensitive maintenance task as specified in point ML.A.402(a); and/or
2. requires the removal of major components or major assembly; and/or
3. is carried out in compliance with an AD or an Airworthiness Limitation Item (ALI) unless specifically allowed in the AD or the ALI and/or;
4. requires the use of special tools, calibrated tools (except torque wrench and crimping tool); and/or
5. requires the use of test equipment or special testing (e.g. Non Destructive Testing (NDT), system tests or operational checks for avionic equipment); and/or
6. is composed of any unscheduled special inspections (e.g. heavy landing check); and/or
7. is affecting systems essential for the IFR operations; and/or



8. is a complex maintenance task in accordance with Appendix VII to Part-M or is a component maintenance task in accordance with points ML.A.502(a) or (b); and/or
9. is part of the annual inspection or 100-hour check defined in the Minimum Inspection Programme described in ML.A.302(d).

The criteria 1 to 9 cannot be overridden by less restrictive instructions issued in accordance with the ML.A.302 AMP.

Any task described in the aircraft flight manual (or other operational manuals), as for example preparing the aircraft for flight (assembling the sailplane wings or performing a preflight inspection or assembling a basket, burner, fuel cylinders and envelope combination for a balloon, etc.), is not considered a maintenance task and therefore does not require a CRS. Nevertheless, the person assembling those parts is responsible for ensuring that they are eligible for installation and they are in serviceable condition.

(c) Performance of the maintenance Pilot-owner tasks and records

The maintenance data as specified in point ML.A.401 must be always available during the conduct of Pilot-owner maintenance and must be complied with. Details of the data referred to in the conduct of Pilot-owner maintenance must be included in the CRS in accordance with point ML.A.803(d).

The Pilot-owner must inform the contracted CAMO responsible (if applicable) not later than 30 days after completion of the Pilot-owner maintenance tasks in accordance with point ML.A.305(a).



3.2. Draft Acceptable Means of Compliance and Guidance Material (Draft EASA Decision)

3.2.1. AMC/GM to Annex VI (Part-ML) to the Continuing Airworthiness Regulation

AMC ML.1 General

A competent authority may be a ministry, a national aviation authority or any aviation body designated by the Member State and located within that Member State. A Member State may designate more than one competent authority to cover different areas of responsibility, as long as the designation decision contains a list of the competencies of each authority and there is only one competent authority responsible for each given area of responsibility.

GM ML.A.201(a) Responsibilities

According to ML.A.201(a), the owner (as defined in ML.1, point (i)) is responsible for the airworthiness of the aircraft.

In the case of an aircraft operated under Part-NCO rules, this Part allows the following:

- The owner manages the continuing airworthiness of the aircraft under its own responsibility, with no need for involvement of a CAMO.
- The owner declares the maintenance programme under its own responsibility, with no need for approval by the competent authority. The maintenance programme:
 - uses the template contained in AMC ML.A.302;
 - includes the maintenance schedule recommended by the DAH (typically the manufacturer of the aircraft), while not going below the Minimum Inspection Programme;
 - includes any additional maintenance tasks, if any, required for the particular aircraft (Sections 4 and 5 and Appendix B in the template for the AMP);
 - includes information on the permitted Pilot-Owner maintenance; and
 - is signed by the owner.
- Maintenance other than the 100h/annual inspection may be performed by the pilot-owner and independent certifying staff. Involvement of maintenance organisations is only mandatory for overhaul of certain components.
- The 100h/annual inspection may be performed together with the annual airworthiness review (issuing the ARC) by:
 - a maintenance organisation or independent certifying staff, in the case of sailplanes, balloons, hot-air airships and ELA1 aeroplanes; or
 - a maintenance organisation in the case of gas airships, aeroplanes above ELA1 and rotorcraft.



In the case of an aircraft not operated under Part-NCO rules, this Part allows the following:

- The owner contracts a CAMO in order to manage the continuing airworthiness of the aircraft.
- The owner declares the maintenance programme under its own responsibility, with no need for approval by the competent authority. The maintenance programme:
 - uses the template contained in AMC ML.A.302;
 - includes the maintenance schedule recommended by the DAH (typically the manufacturer of the aircraft), while not going below the Minimum Inspection Programme;
 - includes any additional maintenance tasks, if any, required for the particular aircraft (Sections 4 and 5 and Appendix B in the template for the AMP);
 - is signed by the owner.
- Maintenance is performed by a maintenance organisation. This organisation performs the 100h/annual inspection together with the annual airworthiness review (issuing the ARC).

GM ML.A.201(d) Responsibilities

If an owner decides not to make a contract in accordance with point ML.A.201(d), the owner is fully responsible for the proper accomplishment of the corresponding tasks. As a consequence, it is recommended that the owner properly self-assess his/her own competence to accomplish them or otherwise seek the proper expertise.

AMC ML.A.302 Aircraft maintenance programme

1. The aircraft should only be maintained according to one maintenance programme at a given point in time. Where an owner wishes to change from one programme to another because of a change in the type of operation, a transfer check or inspection may need to be performed to implement the change.
2. The maintenance programme may take the format of the standard template provided below. This maintenance programme may include several aircraft registrations as long as the maintenance requirements for each registration are clear.
3. During the annual review of the maintenance programme, the following should be taken into consideration:
 - The results of the maintenance performed during that year, which may reveal that the current maintenance programme is not adequate.
 - The results of the airworthiness review performed on the aircraft, which may reveal that the current maintenance programme is not adequate.
 - Revisions introduced on the documents affecting the programme basis, such as ML.A.302(d) 'Minimum Inspection Programme' or the DAH data.
 - Applicable mandatory requirements for compliance with Part-21, such as ADs, Airworthiness Limitations, Certification Maintenance Requirements and specific maintenance requirements contained in the Type Certificate Data Sheet (TCDS).



For the purpose of reviewing the results of the maintenance performed during the last 12 months, the airworthiness review staff should request from the owner/CAMO the records of all the maintenance performed during that year, including unscheduled maintenance.

When reviewing the results of the maintenance performed during that year and the results of the airworthiness review, attention should be paid as to whether the defects found may have been prevented by introducing in the maintenance programme certain DAH's recommendations which were initially disregarded by the owner.

Part-ML Aircraft Maintenance Programme			
Aircraft identification			
1	Registration(s):	Type:	Serial No (s):
Basis for the Maintenance Programme			
2	Design Approval Holder Maintenance Data <input type="checkbox"/> (Complete section 3 below)	Minimum Inspection Programme as detailed in the latest revision of AMC ML.A.302(d) <input type="checkbox"/> Other Minimum Inspection Programme complying with ML.A.302(d) <input type="checkbox"/> (List the tasks in Appendix A to this AMP)	
Design Approval Holder Maintenance Data (not applicable if using Minimum Inspection Programmes)			
3	Equipment manufacturer and type		Applicable maintenance data reference (at latest revision)
For aircraft other than balloons			
3a	Aircraft (other than balloons)		
3b	Engine (if applicable)		
3c	Propeller (if applicable)		
For balloons			
3d	Envelope (only for balloons)		
3e	Basket(s) (only for balloons)		
3f	Burner(s) (only for balloons)		
3g	Fuel cylinders (only for balloons)		



Additional maintenance requirements not covered above (applicable to all AMPs, regardless of whether they are based on Design Approval Holder Data or Minimum Inspection Programmes)			
4	Indicate if any of the following additional maintenance requirements are applicable (when replying 'YES', list the specific requirements in Appendix B to this AMP)	Yes	No
	Maintenance due to specific equipment and modifications		
	Maintenance due to repairs		
	Maintenance due to life-limited components		
	Maintenance due to Mandatory Continuing Airworthiness Information (ALIs, CMRs, specific requirements in the TCDS, etc.)		
	Maintenance due to repetitive Airworthiness Directives		
	Maintenance due to specific operational/airspace directives/requirements (altimeter, compass, transponder, etc.)		
	Maintenance due to type of operation or operational approvals		
5	Indicate if there is any maintenance due to specific recommendations in Service Bulletins, Service Letters, etc. (when replying 'YES', list the specific recommendations and any deviations in Appendix B to this AMP)	Yes	No
Pilot-owner maintenance (only for aircraft operated under Part-NCO rules)			
6	Does the Pilot-owner perform Pilot-owner maintenance (ref. Part-ML, ML.A.803)? If yes, enter the name of the pilot-owner(s): Pilot-owner name: _____ Licence Number: _____ Signature: _____ Date: _____	Yes	No
Approval/Declaration of the Maintenance Programme (select the appropriate option)			
7	Declaration by owner: <input type="checkbox"/>	Approval by contracted CAMO: <input type="checkbox"/>	Approval by Competent Authority: <input type="checkbox"/>
	<i>'I hereby declare that this is the maintenance programme applicable to the aircraft referred to in field 3 and I am fully responsible for its content and, in particular, for any deviations from the Design Approval Holder's recommendations'</i> Signature/Name/Date: _____	Approval Reference No of the CAMO: Signature/Name/Date: _____	Competent Authority: Signature/Name/Date: _____
Certification statement			
8	<i>'I will ensure that the aircraft is maintained in accordance with this maintenance programme and that the maintenance programme will be reviewed and updated as required'</i> Signed by the person/organisation responsible for the continuing airworthiness of the aircraft according to ML.A.201: Owner <input type="checkbox"/> - Lessee <input type="checkbox"/> - CAMO <input type="checkbox"/>		



Name of owner/lessee or CAMO approval number:
 Address:
 Telephone/fax:
 E-mail:
 Signature/Date:

9 Appendices attached:

- Appendix A YES NO
- Appendix B YES NO

Appendix A ‘Minimum Inspection Programme’ (only applicable if a Minimum Inspection Programme different from the one described in AMC ML.A.302(d) is used) (see Section 2 above)

Detail the tasks and inspections contained in the Minimum Inspection Programme being used.

Appendix B ‘Additional Maintenance Requirements’ (include only if necessary) (see Sections 4 and 5 above)

Task Description	References	Interval
Maintenance due to specific equipment and modifications		
Maintenance due to repairs		
Maintenance due to life-limited components		
Maintenance due to Mandatory Continuing Airworthiness Instructions (ALIs, CMRs, specific requirements in the TCDS, etc.)		



Maintenance due to repetitive Airworthiness Directives			
Maintenance due to specific operational/airspace directives/requirements (altimeter, compass, transponder, etc.)			
Maintenance due to type of operation or operational approvals			
Task Description	Recommended interval	Alternative inspection/task	Amended interval
Maintenance due to specific recommendations in Service Bulletins, Service Letters, etc.			

AMC ML.A.302(c) Aircraft maintenance programme

When evaluating possible deviations from the DAH’s recommendations, such as the extension of TBO intervals, a risk-based approach should be taken, considering aspects such as the operation of aircraft, type of aircraft, hours/years in service, maintenance of the aircraft, compensating measures, reputation, etc.

The following table provides more details of aspects which should be considered:

	Examples
OPS approval	HIGHER RISK: Commercial Air Transport, Commercial Flight Training MEDIUM RISK: Flight Training by an association, Special Operations (SPO) LOWER RISK: Private
Flight rules	HIGHER RISK: IFR MEDIUM RISK: VFR night LOWER RISK: VFR day
Aircraft weight	HIGHER RISK: ELA2 MEDIUM RISK: ELA1 LOWER RISK: LSA, VLA, CS22
Who manages the airworthiness of the aircraft	HIGHER RISK: Owner LOWER RISK: CAMO



Who maintains the aircraft	HIGHER RISK: Pilot-owner MEDIUM RISK: Independent certifying staff LOWER RISK: Maintenance organisation
General physical aspect (aircraft, engine, etc.)	HIGHER RISK: Negative impression MEDIUM RISK: Neutral impression LOWER RISK: Positive impression
Time in service (flight hours, years)	HIGHER RISK: very high hours/years MEDIUM RISK: medium hours/years LOWER RISK: low hours/years
Aircraft utilisation	HIGHER RISK: less than 50 h per year MEDIUM RISK: around 200 h per year LOWER RISK: more than 400 h per year
Reported occurrences	HIGHER RISK: Frequent occurrences, numerous findings in Aircraft Continuing Airworthiness Monitoring (ACAM) inspections. MEDIUM RISK: Rare occurrences, few findings in ACAM inspections LOWER RISK: No occurrences, rare findings in ACAM inspections
System redundancy (for components such as engine/propeller)	HIGHER RISK: Single-engine aircraft LOWER RISK: Multi-engine aircraft
Compensating maintenance measures	HIGHER RISK: No supplementary measures LOWER RISK: Supplementary measures (oil analysis, boroscope inspections, corrosion inspections, etc.)
Risk factor of the component failure	HIGHER RISK: engine failure on a helicopter MEDIUM RISK: engine failure on an aeroplane LOWER RISK: engine failure on an LSA, VLA, CS-22

The above information may be useful for CAMOs and competent authorities when developing and approving maintenance programmes and for maintenance organisations when performing airworthiness reviews and reviewing the effectiveness of the declared maintenance programme. It may also be useful for the owner in order to take an informed decision before introducing deviations from the DAH's recommendations. Nevertheless, as allowed by ML.A.302(c)6 and explained in GM ML.A.302, when the owner issues a declaration for the maintenance programme he/she does not need to justify such deviations.

AMC ML.A.302(d) Aircraft maintenance programme

This AMC contains an acceptable 'Minimum Inspection Programme' for ELA2 aircraft other than airships, grouped in the following categories:

- ELA2 aeroplanes;



- ELA2 sailplanes and ELA2 powered sailplanes;
- ELA2 balloons.

These ‘Minimum Inspection Programmes’ already comply with the requirements established in ML.A.302(d) and may be used in order to define the basic information for the maintenance programme as required by ML.A.302(c)2. However, the maintenance programme must be customised as required by ML.A.302(c)5, which may be done by using the standard template contained in AMC ML.A.302.

It must be noted that using the ‘1-month’ tolerance permitted by ML.A.302(d)1 for the annual inspection may result in an expired ARC.

Minimum Inspection Programme for ELA2 aeroplanes

To be performed every annual/100 h interval, whichever comes first.

A tolerance of 1 month or 10 h may be applied. The next interval shall be calculated from the time the inspection takes place.

Note 1: Use the manufacturer’s maintenance manual to accomplish each task/inspection.

Note 2: Proper operation of backup or secondary systems and components should be included for every instance where a check is performed for improper installation/operation.

ELA2 aeroplanes	
System / component / area	Task & Inspection detail
GENERAL	
General	Remove or open all necessary inspection plates, access doors, fairings, and cowlings. Clean the aircraft and aircraft engine as required.
Lubrication/servicing	Lubricate and replenish fluids in accordance with manufacturer’s requirements.
Markings	Check that side and under-wing registration markings are correct. If applicable, check that an exemption for alternate display is approved. Identification plate for National Aviation Authority registered aircraft is present. Other identification markings on fuselage in accordance with local (national) rules.
Weighing:	Review weighing record to establish accuracy against installed equipment. Weigh the aircraft as required by the Part-NCO rules.
AIRFRAME	



Fabric and skin	Inspect for deterioration, distortion, other evidence of failure, and defective or insecure attachment of fittings. NOTE: When checking composite structures, check for signs of impact or pressure damage that may indicate underlying damage.
Fuselage structure	Check frames, formers, tubular structure, braces, and attachments. Inspect for signs of corrosion.
Systems and components	Inspect for improper installation, apparent defects, and unsatisfactory operation.
Pitot/static system	Inspect for security, damage, cleanliness, and condition. Drain any water from condensation drains.
General	Inspect for lack of cleanliness and loose equipment that might foul the controls.
Tow hooks	Inspect for condition of moving parts and wear. Check service life. Carry out operational test.
CABIN AND COCKPIT	
Seats, safety belts and harnesses	Inspect for poor condition and apparent defects. Check for service life.
Windows, canopies and windshields	Inspect for deterioration and damage, and for function of emergency jettison.
Instrument panel assemblies	Inspect for poor condition, mounting, marking, and (where practicable) improper operation. Check markings of instruments in accordance with Flight Manual.
Flight and engine controls	Inspect for improper installation and improper operation.
Speed/weight/ manoeuvre placard	Check that placard is correct and legible and accurately reflects the status of the aircraft.
All systems	Inspect for improper installation, poor general condition, apparent and obvious defects, and insecurity of attachment.



LANDING GEAR	
Shock-absorbing devices	Inspect for improper oleo fluid level. Inspect for wear and deformation of rubber pads, bungees, and springs.
All units	Inspect for poor condition and insecurity of attachment.
Retracting and locking mechanism	Inspect for improper operation.
Linkages, trusses and members	Inspect for undue or excessive wear fatigue and distortion.
Hydraulic lines	Inspect for leakage. Check service life.
Electrical system	Inspect for chafing and improper operation of switches.
Wheels	Inspect for cracks, defects, and condition of bearings.
Tires	Inspect for wear and cuts.
Brakes	Inspect for improper adjustment and wear. Carry out operational test.
Floats and skis	Inspect for insecure attachment and apparent defects.
WING AND CENTRE SECTION	
All components	Inspect all components of the wing and centre section assembly for poor general condition, fabric or skin deterioration, distortion, evidence of failure, insecurity of attachment.
Connections	Inspect main connections (e.g. between wings, fuselage, wing tips) for proper fit, play within tolerances, wear or corrosion on bolts and bushings.
FLIGHT CONTROLS	
Control circuit/stops	Inspect control rods and cables. Check that the control stops are secure and make contact.



Control surfaces	Inspect aileron, flap, elevator, air brake and rudder assemblies, hinges, control connections, springs/bungees, tapes and seals. Check full range of motion and free play.
Trim systems	Inspect trim surfaces, controls, and connections. Check full range of motion.
EMPENNAGE	
All components and systems	Inspect 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.
AVIONICS AND ELECTRICS	
Batteries	Inspect for improper installation, improper charge and spillage and corrosion.
Radio and electronic equipment	Inspect for improper installation and insecure mounting. Carry out ground function test.
Wiring and conduits	Inspect for improper routing, insecure mounting, and obvious defects.
Bonding and shielding	Inspect for improper installation, poor condition, and chafing and wear of insulation.
Antennas	Inspect for poor condition, insecure mounting, and improper operation.
POWERPLANT	
Engine section	Inspect for visual evidence of excessive oil, fuel or hydraulic leaks and sources of such leaks.
Studs and nuts	Inspect for looseness, signs of rotation and obvious defects.
Internal engine	Inspect for cylinder compression (record measures for each cylinder) and for metal particles or foreign matter in oil filter, screens and sump drain plugs. If there is weak cylinder compression, inspect for improper internal condition and improper internal tolerances.
Engine mounts	Inspect for cracks, looseness of mounting, and looseness of the engine to mount attachment.
Flexible vibration dampeners	Inspect for poor condition and deterioration.



Engine controls	Inspect for defects, improper travel, and improper safe tying.
Lines, hoses and clamps	Inspect for leaks, improper condition, and looseness.
Exhaust stacks	Inspect for cracks, defects, and improper attachment.
Turbocharger and intercooler	Inspect for leaks, improper condition, and looseness of connections and fittings.
Liquid cooling systems	Inspect for leaks and proper fluid level.
Electronic engine control	Inspect for signs of chafing and proper electronics and sensor installation.
Accessories	Inspect for apparent defects in security of mounting.
All systems	Inspect for improper installation, poor general condition, defects and insecure attachment.
Cowling	Inspect for cracks and defects. Check cowling flaps.
Cooling baffles and seals	Inspect for defects, improper attachment, and wear.
Fuel tanks	Inspect for improper installation and connection.
CLUTCHES AND GEARBOXES	
Filters, screens, and chip detectors	Inspect for metal particles and foreign matter.
Exterior	Inspect for oil leaks.
Output shaft	Inspect for excessive bearing play and condition.
PROPELLER	
Propeller assembly	Inspect for cracks, nicks, binds, and oil leakage.
Propeller bolts	Inspect for proper installation, looseness, signs of rotation, and lack of safe tying.
Propeller control mechanism	Inspect for improper operation, insecure mounting, and restricted travel.



Anti-icing devices	Inspect for improper operation and obvious defects.
MISCELLANEOUS	
Ballistic rescue system	Inspect for proper installation, unbroken activation mechanism, proper securing while on ground, validity of inspection periods of pyrotechnic devices, and parachute packing intervals.
Other miscellaneous items	Inspect installed miscellaneous items that are not otherwise covered by this listing for improper installation and improper operation.
OPERATIONAL CHECKS	
Power and rpm	Check that power output, static and idle rpm are within published limits.
Magnetos	Check for normal function.
Fuel and oil pressure	Check they are within normal values.
Engine temperatures	Check they are within normal values.
Engine	For engines equipped with automated engine control (e.g. FADEC), perform the published run-up procedure and check for discrepancies.
Engine	For dry-sump engines and engines with turbochargers and for liquid cooled engines, check for signs of disturbed fluid circulation.
Pitot-static system	Perform operational check.
Transponder	Perform operational check.

Minimum Inspection Programme for ELA2 sailplanes and ELA2 powered sailplanes

To be performed:

- every annual/100 h interval (for Touring Motor Gliders (TMG)), whichever comes first; or
- every annual interval (for the rest).

A tolerance of 1 month or 10 h, as applicable, may be applied. The next interval shall be calculated from the time the inspection takes place.

Note 1: Use the manufacturer's maintenance manual to accomplish each task/inspection.

Note 2: In the case of TMGs, it is acceptable to control the hours of use of the aircraft, engine and propeller as separate entities. Any maintenance check to be done between two consecutive



annual/100 h inspections may be performed separately on the aircraft, engine and propeller depending on when each element reaches the corresponding hours. However, at the time of the annual/100 h inspection, all the elements must be covered.

Note 3: Proper operation of backup or secondary systems and components should be included for every instance where a check is performed for improper installation/operation.

ELA2 sailplanes and ELA2 powered sailplanes	
System /component / area	Task & Inspection detail
GENERAL	
General — all tasks	The aircraft must be clean prior to inspection. Inspect for security, damage, wear, integrity, drain/vent holes clear, signs of overheating, leaks, chafing, cleanliness and condition as appropriate to the particular task. Whilst checking composite structures, check for signs of impact or pressure damage that may indicate underlying damage.
Lubrication/servicing	Lubricate and replenish fluids in accordance with manufacturer's requirements.
Markings	Check that side and under-wing registration markings are correct. If applicable, check that an exemption for alternate display is approved. Identification plate for National Aviation Authority registered aircraft is present. Other identification markings on fuselage in accordance with local (national) rules.
Weighing:	Review weighing record to establish accuracy against installed equipment. Weigh the aircraft as required by Regulation Part-NCO.
AIRFRAME	
Fuselage paint/gel coat, including registration markings	Inspect external surface and fairings, gel coat, fabric covering or metal skin, and paintwork. Check that registration marks are correctly applied.
Fuselage structure	Check frames, formers, tubular structure, skin, and attachments. Inspect for signs of corrosion on tubular framework.
Nose fairing	Inspect for evidence of impact with ground or objects.
Release hook(s)	Inspect nose and Centre of Gravity (C of G) release hooks and controls. Check operational life. Carry out operational test. If more than one release hook or control is fitted, check operation of all release hooks from all positions.



Pot pitot/ventilator	Check alignment of probe, check operation of ventilator.
Pitot/static system	Inspect pitot probes, static ports all tubing (as accessible) for security, damage, cleanliness, and condition. Drain any water from condensate drains.
Bonding/vents drains	Check all bonding leads and straps. Check that all vents and drains are clear from debris.
CABIN AND COCKPIT	
Cleanliness/loose articles	Check under cockpit floor/seat pan and in rear fuselage for debris and foreign items.
Canopy, locks and jettison	Inspect canopy, canopy frame and transparencies for cracks, unacceptable distortion, and discolouration. Check operation of all locks and catches. Carry out an operational test of the canopy jettison system from all positions.
Seat/cockpit floor	Inspect seat(s). Check that all loose cushions are correctly installed and, as appropriate, energy absorbing foam cushions are fitted correctly. Ensure that all seat adjusters fit and lock correctly.
Harness(es)	Inspect all harnesses for condition and wear of all fastenings, webbing, and fittings. Check operation of release and adjustments.
Rudder pedal assemblies	Inspect rudder pedal assemblies and adjusters.
Instrument panel assemblies	Inspect instrument panel and all instruments/equipment. Check instrument readings are consistent with ambient conditions. Check marking of all switches, circuit breakers, and fuses. Check operation of all installed equipment as possible in accordance with manufacturer's instructions. Check markings of instruments in accordance with Flight Manual.
Oxygen system	Inspect oxygen system. Check bottle hydrostatic test date expiry in accordance with manufacturer's recommendations. Ensure that bottle is not completely empty (13,8 bars / 200 psi minimum) and refill with aviator's oxygen only. Clean masks and regulators with approved cleaning wipes. Ensure that oxygen installation is recorded on weight and C of G schedule. CAUTION: OBSERVE ALL SAFETY PRECAUTIONS.



Colour-coding of controls	Ensure that controls are colour-coded and in good condition, as follows: Tow release: Yellow Air Brakes: Blue Trimmer: Green Canopy normal operation: White Canopy jettison: Red Other controls: clearly marked but not using any of the above colours.
Equipment stowed in centre section	Check for security and condition. Check validity of any safety equipment. Check manufacturer's and NAA (if required) data plates.
Speed/weight/ manoeuvre placard	Check that the placard is correct and legible and accurately reflects the status of the aircraft.
LANDING GEAR	
Front skid/nose wheel and mounts	Inspect for evidence of hard/heavy landings. Check skid wear. Inspect wheel, tyre, and wheel box. Check tyre pressure.
Main wheel and brake assembly	Check for integrity of hydraulic seals and leaks in pipe work. Check life of hydraulic hoses and components if specified by the manufacturer. Remove brake drums, check brake lining wear. Check disk/drum wear. Refit drum. Check brake adjustment. CAUTION: BRAKE DUST MAY CONTAIN ASBESTOS. Check operation of brake. Check level of brake fluid and replenish if necessary. Check tyre pressure. CAUTION: CHECK TYPE OF BRAKE FLUID USED AND OBSERVE SAFETY PRECAUTIONS.
Undercarriage suspension	Check springs, bungees, shock absorbers, and attachments. Check for signs of damage. Service strut if applicable.
Undercarriage retract system and doors	Check retraction mechanism and controls, warning system if fitted, gas struts, doors and linkages/springs, over-centre/locking device. Perform retraction test.
Tail skid/wheel	Inspect for evidence of hard/heavy landings. Check skid wear. Inspect wheel, tyre, and wheel box. Check bond of bonded skids. Check tyre pressure.
Wheel brake control circuit	Inspect wheel brake control rods/cables. If combined with air brake, ensure correct rigging relationship. Check parking brake operation if fitted.



WING AND CENTRE SECTION	
Centre section fairing	Inspect for security, damage, and condition.
Wing attachments	Inspect the wing structural attachments. Check for damage, wear, and security. Check for rigging damage. Check condition of wing attachment pins.
Aileron control circuit/ stops	Inspect aileron control rods/cables. Check that control stops are secure and make contact. Inspect self-connecting control devices.
Air brake control circuit	Inspect air brake control rods/cables. Check friction/locking device (if fitted). Inspect self-connecting control devices.
Wing struts/wires	Inspect struts for damage and internal corrosion. Re-inhibit struts internally every 3 years or in accordance with manufacturer's instructions.
Wings including underside registration markings	Check mainplane structure externally and internally as far as possible. Check gel coat, fabric covering, or metal skin. Check that registration marks are correctly applied.
Ailerons and controls	Inspect aileron and flaperon assemblies, hinges, control connections, springs/bungees, tapes, and seals. Ensure that seals do not impair full range of movement.
Air brakes/spoilers	Inspect air brake/spoiler panel(s) operating rods, closure springs, and friction devices as fitted.
Flaps	Check flap system and control. Inspect self-connecting control devices.
Control deflections and free play, and record on worksheets	Check and record range of movements and cable tensions, if specified, and check free play.
EMPENNAGE	
Tailplane and elevator	With tailplane de-rigged, check tailplane and attachments, self-connecting and manual control connections. Check gel coat, fabric covering, or metal skin.
Rudder	Check rudder assembly, hinges, attachments, balance weights.
Rudder control circuit/ stops	Inspect rudder control rods/cables. Check that control stops are secure and make contact. Pay particular attention to wear and security of liners and cables in 'S' tubes.
Elevator control circuit/stops	Inspect elevator control rods/cables. Check that control stops are secure and make contact. Inspect self-connecting control devices.



Trimmer control circuit	Inspect trimmer control rods/cables. Check friction/locking device.
Control deflections and free play, and record on worksheets	Check and record range of movements and cable tensions, if specified, and check free play.
AVIONICS AND ELECTRICS	
Electrical installation/fuses	Check all electrical wiring for condition. Check for signs of overheating and poor connections. Check fuses/trips for condition and correct rating.
Battery security and corrosion	Check battery mounting for security and operation of clamp. Check for evidence of electrolyte spillage and corrosion. Check that battery has correct main fuse fitted. It is recommended to carry out battery capacity test on gliders equipped with radio, used for cross-country, controlled airspace, or competition flying.
Radio installations and placards	Check radio installation, microphones, speakers and intercom, if fitted. Check that call sign placard is installed. Carry out ground function test. Record radio type fitted.
Air Speed Indicator calibration	Carry out calibration of the airspeed indicator (in situ permissible) in accordance with manufacturer's instructions — use manufacturer's limits. If not available, maximum error 2 knots (or 3.5 Km/hour).
Altimeter datum	Check barometric sub-scale. Maximum error 2 Mb.
Pitot-static system	Perform operational check.
Transponder	Perform operational check.
MISCELLANEOUS	
Removable ballast	Check removable ballast mountings and securing devices (including fin ballast if applicable) for condition. Check that ballast weights are painted with conspicuous colour. Check that provision is made for the ballast on the loading placard.
Drag chute and controls	Inspect chute, packing and release mechanism. Check packing intervals.
Water ballast system	Check water ballast system, wing and tail tanks as fitted. Check filling points, level indicators, vents, dump and frost drains for operation and leakage. If loose bladders are used, check for leakage and expiry date as applicable.



POWERPLANT (when applicable)	
Engine pylons and mountings	Inspect engine and pylon installation. Check engine compartment and fire sealing.
Gas strut	Check gas strut.
Pylon/engine stops	Check limit stops on retractable pylons. Check restraint cables.
Electric actuator	Inspect electric actuator, motor, spindle drive, and mountings.
Electrical wiring	Inspect all electrical wiring. Pay special attention to wiring that is subject to bending during extension and retraction of engine/pylon.
Limit switches	Check operation of all limit switches and strike plates. Make sure that they are not damaged by impact.
Fuel tank(s)	Check fuel tank mountings and tank integrity. Check fuel quantity indication system if fitted.
Fuel pipes and vents	Check all fuel pipes especially those subject to bending during extension and retraction of engine/pylon. Check that vents are clear. Make sure that overboard drains do not drain into engine compartment. Check self-sealing.
Fuel cock or shut off valve	Check operation of fuel cock or shut-off valve and indications.
Fuel pumps and filters	Clean or replace filters as recommended by manufacturer. Check operation of fuel pumps for engine supply or tank replenishment. Check fuel pump controls and indications.
Decompression valve	Inspect decompression valve and operating control.
Spark plugs	Carry out spark plug service. It is recommended to replace spark plugs at annual intervals.
Harnesses and Magneto	Inspect low-tension and high-tension wiring, connectors, spark plug caps. Check magneto to engine timing. Check impulse coupling operation.
Propeller bolts, assembly, mounting, torquing & drive belt	Inspect propeller, hub, folding mechanism, brake, pitch change mechanism, stow sensors.
Doors	Check engine compartment doors, operating cables, rods, and cams.
Safety springs	Check all safety and counterbalance springs.



Extension and retraction	Check that extension and retraction operation times are within limits specified by manufacturer. Check light indications and interlocks for correct operation.
Exhaust	Inspect exhaust system, silencer, shock mounts, and links.
Engine installation	Inspect engine and all accessories. Carry out compression test and record results. Compression test results: No1 (left/front): No2 (right/rear):
Lubrication	Change engine oil and filter. Replenish oil and additive tanks.
Engine instruments	Inspect all engine instruments and controls. Check control unit, mounts, bonding and connections. Carry out internal self-test if fitted.
Engine battery	If separate from airframe battery, inspect battery and mountings. If main fuse is fitted, check rating and condition.
Engine battery capacity test	Carry out capacity test. Refer to appropriate manual or guidance.
Placards	Check that all placards are in accordance with flight manual and legible.
Oil and fuel leaks	With the engine fully serviced, check the fuel and oil system for leaks.

Minimum Inspection Programme for ELA2 balloons

To be performed every annual/100 h interval, whichever comes first.

A tolerance of 1 month or 10 h may be applied. The next interval shall be calculated from the time the inspection takes place.

Note 1: Use the manufacturer's maintenance manual to accomplish each task/inspection.

Note 2: Proper operation of backup or secondary systems and components should be included for every instance where a check is performed for improper installation/operation.

1. Envelope

System/ component /area	Task & Inspection detail
Identification (type/serial number/registration plate)	Check for presence.



Crown ring and line	In place ; not corroded ; crown line undamaged and has appropriate length.
Vertical/horizontal load tapes	Check joints with the crown ring, top of the envelope and wires. All load tapes undamaged along their entire length. Inspect base horizontal tape and edge of the envelope top. Inspect joint between base horizontal load tape and vertical load tapes.
Envelope Fabric	Inspect the envelope fabric panels (including parachute and rotation vents if fitted) for damage, porosity overheating or weakness. Unrepaired damage is within tolerance given by the manufacturer. If substantial fabric porosity is suspected, then a flight test should be performed, but only after a grab test has demonstrated that the balloon is safe to fly. Perform grab test in accordance with manufacturer's instructions.
Flying Cables	Inspect for damage (particularly heat damage). Kevlar cable – yellow core is not visible
Karabiners	Inspect for damage. Karabiner lock is working properly.
Melting link and Tempilabel	Check maximum temperature indication (flag/'tell-tale').
Control system lines	Inspect for damage wear, security of knots. Check proper length. Check lines attachments for damage, wear, security.
Control lines and their attachments	Inspect for damage, wear, security of knots. Check proper length of the lines.
Envelope pulleys	Inspect for damage, wear, free running, contamination, security of attachment.

2. Burner

System/ component /area	Task & Inspection detail
Identification (type/serial number)	Check for presence and verify type/serial number installed.
Burner Frame	Inspect welds for cracking.
	Inspect tubes for distortion/deformation/cuts/gouges.



	Inspect frame for security of fasteners (heat shields, flexi-corners).
	Inspect frame lugs for wear, cracking.
	Inspect general condition (corrosion, heat shields).
Gimballing	Check stiffness, security of fitting manifolds.
Leak check	Perform leak check of the burner.
Hoses	Inspect all hoses for wear, damage, leak and life time limitation. Inspect condition and correct function of the fuel.
Pressure Gauges	Check Pressure Gauge reads zero when no pressure applied, lens present.
Pilot Valves / flame	Check Shut off, free movement, Correct Function, lubricate if necessary.
Whisper Valves / flame	Check Shut off, free movement, Correct Function, lubricate if necessary.
Main Valves / flame	Check Shut off, free movement, Correct Function, lubricate if necessary.
Coils	Check for damage, distortion, security of fasteners. Inspect welds for cracking. Check Security of Jets, Tighten or Replace as necessary.
Fuel	Check Correct Type, check dates (if applicable).

3. Basket

System/ component /area	Task & Inspection detail
Identification (type/serial number)	Check for presence.
Basket body	Check the general condition of the basket body. Inspect weave for damage, cracks / holes. No sharp objects inside the basket.
Basket wires	Inspect for damage, check eye rings.
Karabiners	Inspect for damage. Karabiner lock is working properly.
Basket floor	Inspect for damage and cracks.



Runners	Inspect for damage.
Rawhide	Inspect for damage, wear and attachments to the floor.
Rope handles	Inspect for damage, security of attachment.
Cylinder straps	Inspect for damage, deterioration.
Padded basket edge trim	Inspect for damage and wear.
Burner rods	Inspect for damage, wear and cracking.
Padded burner rod covers	Inspect for damage and wear.
Basket equipment	Check presence and functionality.
pilot restraint	Inspect for security and condition.
Fire extinguisher	Check expiration date and protection cover.
First-aid kit	Check for completeness and expiration date.

4. Fuel tanks

System/ component /area	Task & Inspection detail
Identification (type/serial number)	Check for presence.
Cylinder	Check periodic inspections for each cylinder is valid (date) (e.g. 10 years' inspection).
Cylinder body	Inspect for damage, corrosion.
Liquid Valve	Inspect for damage, corrosion, correct operation.
	Inspect O-ring seals, Lubricate/replace as required.
Fixed Liquid Level Gauge	Inspect for damage, corrosion, correct operation.



Contents Gauge	Inspect for damage, corrosion, freedom of movement.
Vapor Valve	Inspect for damage, corrosion, correct operation (including regulator).
	Inspect Quick Release Coupling for correct operation, sealing.
Padded cover	Inspect for damage.
Pressure relief valve	Does not indicate over pressuring
Assembly	Inspect, leak-test all pressure holding joints using leak detector.
	Functional Test

5. Additional equipment

System/ component /area	Task & Inspection detail
Instruments	Functional check
Quick release	Functional check and inspect the condition of the latch, bridle and ropes for wear and deterioration. Check that the karabiners are undamaged and operate correctly.
Communication/ navigation equipment (radio)	Perform operational check.
Transponder	Perform operational check.

GM ML.A.302 Aircraft maintenance programme

Responsibilities associated to maintenance programmes developed in accordance with ML.A.302:

- If the owner has contracted an organisation in accordance with ML.A.201(d), this organisation is responsible for developing and proposing to the owner a maintenance programme which:
 - indicates whether the maintenance programme is based on the ‘Minimum Inspection Programme’ described in ML.A.302(d);
 - identifies the owner and the specific aircraft, engine, and propeller (as applicable);
 - includes all mandatory maintenance information and any additional tasks derived from the assessment of the DAH’s recommendations;



- justifies any deviations from the DAH's recommendations;
- does not go below the requirements of the Minimum Inspection Programme;
- is customised to the particular aircraft type, configuration and operation, in accordance with ML.A.302(c)5.

If the maintenance programme is going to be approved by the competent authority, such competent authority is responsible for evaluating the justifications provided in relation to deviations from the DAH's recommendations .

However, when issuing a declaration for the maintenance programme, the owner assumes full responsibility for any deviations introduced to the maintenance programme proposed by the contracted organisation. The organisation which developed the maintenance programme is not responsible for such deviations. These deviations do not need to be justified by the owner.

- If the owner has not contracted an organisation in accordance with ML.A.201(d) and has decided to develop the maintenance programme himself/herself, when issuing a declaration for the maintenance programme, the owner assumes full responsibility for its content, including any deviations from the DAH's recommendations. In this case, these deviations do not need to be justified. However, the maintenance programme still needs to comply with the requirements contained in ML.A.302(c), in particular with the obligation to not go below the requirements of the 'Minimum Inspection Programme' and to comply with the mandatory continuing airworthiness information.

If the maintenance programme is going to be approved by the competent authority, the owner needs to provide to such competent authority the justification for the deviations from the DAH's recommendations.

- The content of the declared (by the owner) maintenance programme cannot be challenged upfront either by the competent authority, the contracted CAMO, or the contracted maintenance organisation. This declared maintenance programme is the basis for adequate planning of maintenance as well as for the airworthiness reviews and the content of the ACAM inspections in accordance with ML.B.303. Nevertheless, the maintenance programme will be subject to periodic reviews at the occasion of the airworthiness review and, in case of discrepancies linked to deficiencies in the content of the maintenance programme, the owner shall amend the maintenance programme accordingly as required by ML.A.302(c)7.
- When the competent authority is notified of deficiencies linked to the content of the declared maintenance programme for a particular aircraft (in case no agreement could be reached between the owner and the airworthiness review staff about the changes required in the maintenance programme), the competent authority should contact the owner, request a copy of the maintenance programme (if it was declared) and use the information received for the adequate planning of the ACAM programme. Based on the reported deficiencies and the risks identified, the competent authority will adapt accordingly the ACAM programme. This notification will also allow that the competent authority agrees on the changes required to the maintenance programme as required by point ML.A.302(c)7.



- Although there is no requirement for the owner to send a copy of the declared maintenance programme to the competent authority, this does not prevent the competent authority from requesting a copy to the owner at any time, even if deficiencies have not been reported.
- Since the maintenance programme has to identify the deviations from the DAH's recommendations, the airworthiness reviews and ACAM inspections should place emphasis on the inspection of those areas affected by those deviations in order to make sure that the maintenance programme is effective.
- Since the competent authority is not responsible for the content of a declared maintenance programme, the competent authority cannot authorise deviations from its content. In such cases, the owner can always declare an amended AMP.

AMC ML.A.402 Performance of maintenance

Examples of acceptable methods to record and document the maintenance performed are the following:

- A copy of the 100-hour inspection checklist with ticks and signature.
- A copy of the release to service indicating the tasks performed.

AMC ML.A.803 Pilot-owner authorisation

1. A Pilot-owner may only issue a CRS for maintenance he/she has performed.
2. In the case of jointly-owned aircraft, the AMP should list the names of all Pilot-owners competent and designated to perform Pilot-owner maintenance. An alternative would be the AMP to contain a procedure to ensure how such a list should be managed and kept current.
3. An equivalent valid Pilot-owner licence may be any document attesting a pilot qualification recognised by the Member State.

AMC to Appendix I 'Limited Pilot-owner maintenance'

Refer to the list of acceptable Pilot-owner maintenance tasks contained in the AMC to Appendix VIII to Part-M.

Any other task meeting the requirements of Appendix I to this Part may also be performed by the Pilot-owner.



4. References

4.1. *Affected regulations*

Commission Regulation (EU) No 1321/2014 of 26 November 2014 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks (OJ L 362, 17.12.2014, p. 1)

4.2. *Affected AMC and GM*

Executive Director Decision 2003/19/RM of 28 November 2003 on acceptable means of compliance and guidance material to Commission Regulation (EC) No 2042/2003 of 20 November 2003 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks.

4.3. *Reference documents*

None



5. Appendices



Appendix I: 'Vision Statement for Balloon Airworthiness and Maintenance' from the European Ballooning Federation (EBF)

(Provided by Mr. Graham Hallett, European Ballooning Federation)

It is widely acknowledged that much of the current EASA regulatory system is inappropriate for General Aviation, particularly so for balloons. In recognition of this EASA has made efforts to introduce further regulation (Part ML) which is more appropriate for the lighter end of the aviation sector. However, these efforts have been constrained by the limits either imposed by the existing regulations, such as the Basic Regulation and Part M, or due to a narrow interpretation of those regulations.

To create a better, more appropriate regulatory system for general aviation in general and balloons in particular, more far-reaching changes are required. The following provides a vision statement of how this may be achieved, ensuring 'light touch' appropriate regulation whilst still enjoying the benefits that a common pan-European regulatory system can offer.

Although this NPA, and this vision statement, are primarily concerned with airworthiness and maintenance, some changes may be needed at the Basic Regulation level, to allow subsidiary regulations more scope for proportionality.

Balloons would be better served by having separate regulation(s) (below the Basic Regulation) devoted to balloons only. As it is, there are very many 'except balloons' statements with the regulations and many more are needed to provide the proportionality that balloons require.

Certificate of Airworthiness (C of A)

Balloons do not necessarily need a Certificate of Airworthiness. A C of A was not mandatory pre-EASA in the UK or other states; they are still not in other ICAO states (e.g. Japan and the USA for small balloons). There were no adverse safety effects as a result of this. Balloons only to be flown within their state of registry could be deregulated to Annex II.

Conversely, it is recognised that for mutual recognition within EASA states this may best be provided by an EASA C of A. Also it is felt to be proportionate that commercial passenger carrying balloons should be required to hold an EASA C of A.

Paragraph 5 of the preamble of the Basic Regulation states (to paraphrase) that aircraft of simple design or locally operated should remain under national rules. Balloons must surely come into that category of simple aircraft, yet they are not included in Annex II, which is the mechanism whereby aircraft are subject to National rules.

On balance, the Vision Statement is:

Annex II should be amended to permit the inclusion of series balloons, allowing series balloons to be subject to National regulations, rather than EASA regulation, by the choice of the owner / operator. Series balloons should be able to be covered under EASA Part M / ML, by the choice of the owner / operator. Commercial passenger balloons should be required to have an EASA C of A.

NOTE: By series balloons, it is meant all balloons which are not currently Annex II balloons, ie those produced in series by a manufacturer against a TCDS. However, those which are operated as commercial passenger balloons (ie CAT(Balloons)) would be ineligible for Annex II.



Airworthiness Review Certificates (ARCs)

It should be recognised that, for balloons, there is no practical distinction between maintenance and continuing airworthiness and they should not be treated as separate activities. To revalidate the C ofA (if the balloon has one), all that is required is an annual maintenance inspection, which also addresses the minor paperwork review elements of what is now considered an airworthiness review. A separate certificate (such as an ARC) is not required for this.

Since there is no real distinction between maintenance and continuing airworthiness, there is no requirement for Continuing Airworthiness Management Organisations to be involved with balloons, no matter what type of operation they are engaged in.

The Vision Statement is:

Balloons under Part M/ML should not require an ARC, nor any involvement from a CAMO. A single CRS & CMR document should cover all aspects of the annual inspection.

Maintenance Programmes

Separate maintenance programmes are not required for balloons, when equivalent maintenance requirements already exist within the manufacturer's documentation. Currently, all EASA balloon manufacturers publish within their flight and maintenance manuals all the requirements for essential and continuing airworthiness required by Annex I of the Basic Regulation.

The Vision Statement is:

There should be no requirement for aircraft (Balloon) specific Maintenance Programmes. The generic programmes published by all manufacturers are sufficient.



Appendix II: 'A review of experience in General Aviation airworthiness regulation – defeated by complexity' from Europe Air Sports (EAS)

(Provided by Mr. Howard Torode, Europe Air Sports)

INTRODUCTION AND EXPERIENCE.

In this note I have attempt to amplify the situation we see in Sport/Recreation aviation in Airworthiness and Maintenance (AW&M), beyond the scope offered by EASA to GATF2 (General Aviation Task Force Phase II) in formulating Part M Light (PML). I note I have wrestled with EASA on behalf of EAS, EGU and the British Gliding Association, on and off, for nearly ten years. I use paragraphs entitled Granularity, Stacking and Fragmentation (in implementation), as previously used in a paper (by Babic) to the GA Road Map group, and also offer some wider thoughts on the way forward. Please note that in the following 'Sport/GA' essentially covers non-CAT, sport & recreational aircraft.

GRANULARITY (The unnecessary segmentation of detailed roles, or 'Divide and Rule'.)

EASA have consistently created multiple rules and approvals to cover what are essentially the same activity, perhaps trying to create helpful (?) alternatives, perpetuating a 'granularity' which is unnecessary for the simple task of regulating sport aviation. The result of this granularity is the need for a plethora of approvals that sport aviation cannot afford. Sport aviation was never 'bent' and did not need fixing.

There are numerous examples in AW&M, but two assume prime importance:

1. Separation of maintenance from its management or CAMO process in Part M,(Sub F and Sub G), makes perfect sense for commercial operators with maintenance bases and inspection departments involving staff of separate disciplines, and was accepted as a given years ago when negotiations with EASA started. Its use for Sport/GA is unnecessary, as demonstrated over decades of previous experience. This demarcation duplicates paperwork, demanding additional activities for correlation for consistency of overly duplicative functions. Worse, it demands the maintenance of two separate approvals (before considering personal approvals, see below) with major up-front costs and maintenance/audit functions. EASA persist in the belief that 'maintenance management' is a life-long career calling: NOT SO! Applied to simple aircraft it can be taught to responsible experienced professionals in a matter of hours.
2. The pending introduction of Part66 personal engineers' licences for all light aviation, particularly those specialised areas such as gliding and ballooning, will add a further costly raft of approval for volunteer individuals operating within an already approved environment. In Sport Aviation, few of these individuals are actually interested in making a trade or a profit from these part time endeavours and a major loss of resources in these sports can be expected. Throughout the years I have been involved, EASA have continuously failed to recognise the position held by Sporting Association and user groups, even given these group's previous experience and in regulation processes. While there is a clear need for a licence for independent professional staff, to sporting associations the separate licensing of their voluntary worker appears 'double regulation'.



This said, GATF2 has made some progress has been made on issue (1) above, but a deeper review is still needed. The acceptance of the ELA classes has brought a focus on the light end of the business that did not exist previously. Through the GA Task Force 2 – PML Group, several measures have been implemented to cut across the divide between maintenance and its management. Measures have identified circumstances that allow suitably qualified staff and organisations to combine such activity. Nevertheless this remains a ‘sticking plaster’ to be applied at the work-face: the formally segregated structures of the regulation and the company, and personal approvals it demands, remain in place.

Even given the ‘maintenance’ approvals described above, repairs and their specification requires additional Part 21 design approval which is well beyond the remit and capability of sport association or indeed, engineers involved in the sport. More widely, it is now clear that to function fully under the EASA umbrella, national sport bodies and user groups require the full gamut of approvals. In future these will be more interlinked as regulations such as Safety Management are applied across various classes of regulation.

EASA only ever offers ‘patches’ to existing legislation. In this aspect, GATF2 and Part ML are no different: these measures are additional options against existing rules. A fresh approach was never on offer. The approach chosen opens opportunities for the proliferation of unintended consequences. It will not be possible to resolve the root issues herein by applying patches to bad regulation.

Finally I must note the frustration of trying to address apparently local issues, only to be told by regulators that ‘the basic regulation can’t be changed for another 5 years, so there is no point in pursuing that’.

STACKING (layered regulation down to unnecessarily levels of detail)

Within GATF2 we are making good progress in reducing the regulatory burden of Sport/GA maintenance and airworthiness, but this comes at a price at several levels:

1. To guarantee clarity of responsibility, the light approach to Part M (PML) will enable the owner to decide how, and on what basis, his aircraft will be maintained. This is a strong freedom but carries with it a significant responsibility. It is anticipated that he will draw on the experience of his (suitably qualified) provider, possibly a sport association, to assist in delivering this charge. If this is to be the only way in which sport associations can provide their traditional services to owners, then so be it. This sets into context the lengthy ‘responsibility (?)’ chain that exists between the manufacturer (TC holder) and the owner. While holding power of approval and audit, all intermediate regulators, be they EASA, National authorities, CAMOs, maintenance organisations and their agents all become purely advisers and overseers, with no legally contestable responsibilities. Why must there be so many levels of bureaucracy that needs to be satisfied by costly, cascaded audits operated at multiple levels and layers?
2. Given these freedoms the GATF is turning its attention to providing the regulatory support. This naturally drives the regulator into developing minutii of regulation and AMC in order to be satisfied that all measures are covered. Stacking starts in earnest:
 - a. Maintenance programmes: We now have ‘minimum maintenance programmes’, ‘basic maintenance programmes’ and ‘customised maintenance programmes’; the minimum maintenance programme is 2 pages long, the guidance on customising a basic



maintenance programme run to 9 pages, not including templates. Why can we not be trusted to create maintenance programmes for simple sport aircraft without tens of pages of guidance, most of which is in-applicable?

- b. Fitment of parts: Accepted, a big issue on airliners. Under Part M Light, for privately owned sport aircraft, often of single occupant, this demands a spreadsheet table 5X6 to cover all issues of who can fit what to what, when, and with what paperwork and what release certificate. Sport aviation does not merit this level of detail of controls.
- c. Deferred Defect and reporting (for example): This seems problematic for the regulator who seem to feel that, at each point, he must be assured that the individual concerned does not exceed his abilities and experience. The difficulty for the regulator appears to be that these competence limits this cannot be overseen, so safety has to be vested in the on-site individual, be the pilot, engineer, CAMO, - whatever their level. Regulators appear paranoid in these circumstances and compound AMC/GM, multiple audits and guidance upon complex approvals in a vain attempt to micromanage.

The primary measure to avoid stacking, and reducing volume of paperwork is to regulate at an appropriate policy level, and then leave those responsible to get on with it, evolving their own processes. Again GATF2 has modest successes: introducing sensible owner proposed measure for Time Between Overhaul on 'lifer' parts such as engines and propellers depending on their usage and monitoring. Further, EASA's CS-STAN is showing the way forward on the fitment of sporting equipment and evolving safety and new communication technology with minimum overheads.

The safety record of light /sport aviation is sufficiently good that regulators should recognise existing regulation and practices, recognising that evolution is likely to be better than the revolution, and that they are currently regulating down to too low a level.

FRAGMENTATION (bureaucratic obstacles to implementation)

The failure of individual nations to respect the intent of regulation is the most powerful disincentive to the entire process. Presently we suffer from a wide range of interpretation which often crosses international borders, sometimes as simple as eg: several nations seem unprepared to accept the provisions of the conditional tense, with catastrophic implication in their interpretation of AMC/GM. With issues as basic as this there seems little hope of building the kind of mutual trust between NAA's that will be necessary to achieve the pan-European ideal. This may even be another supporting case for minimising standard AMC, and leaving qualified organisation to develop their own procedures.

The multiple layering of oversight bodies, each with their own the audit processes, usually at the end user's expense, is currently out of control. Individual audits, without notice, have encroached on the owners the freedom to operate their aircraft. However the greatest failing of the current audit process remains the consequences of overzealous higher level audits between government departments and regulators. 'Predatory' audits are known to have resulted in fleet wide grounding of Sport/GA aircraft, usually as a result of the auditor's inability to understand the provisions of the rules. For the future we would seek a 'single point of audit' process, applied at the 'organisation' level, precluding unnecessary authority intervention at the level of the airframe or owner.



WIDER ISSUES FOR GENERAL AVIATION ASSOCIATIONS AND USER GROUPS.

Common European rules should enable Sport Aviation enthusiasts to move and operate freely in Europe. This is the prime reason for supporting it, but the overhead cost of this privilege is currently too high, particularly for those at the lighter end. As now configured, there is no route other than full commitment to all of EASA measures. As new rules emerge, Sport Associations will necessarily have to review their capabilities and approvals concerning every corner of EASA regulation – NCO, ATO, FCL, MED, Certification, Maintenance, Continuing Airworthiness, Safety Management, plus any new issues regulators might think of in future.

In short, the granularity ('Divide and Rule') of regulation in narrow 'vertical' topic areas is basically unsuitable for application to light, non-CAT Sport/GA. Currently, Sport Association and national interest groups operate 'horizontally' using local expertise, to service their subscribers who value broad based, single sourced advice. Sport/GA does not merit the circumspection applied to CAT. 'Risk based' means totally different things in GA compared to wider aviation.

The emergence of Safety Management System regulation raises further concern for light aviation. While, undeniably SMS is a worthwhile undertaking, I fear that, again, we will be driven into a blanket process, which while adapted for airlines and CAT, will be totally inappropriate for our use, burdensome and actually prejudicial to safety. With granularity and fragmentation at its present level a broad based initiative such as SMS could precipitate the need for multiple unnecessary approvals, accreditations and audits that could further limit sport associations and user groups, notwithstanding that they currently operate such processes appropriately in their own context and interpretation.

The failure of the policy makers to conceive of any delegated system whereby National Sporting bodies can operate in a self-determining way is a fundamental concern. Qualified Entities or Assessment Bodies are rigid constructs which have failed to serve the needs of Sport Associations. For the future we need a more flexible relationship between sporting bodies and NAA's. This should recognise the merits of Sport Associations and user groups to manage their own affairs without intrusive 'vertical' regulations and approvals. Further granularity, stacking and fragmentations is wholly counterproductive to these aims.

Finally, when is it all going to end? No time soon, clearly. By when will we establish a stable regulatory regime in which we can all have confidence?



Appendix III: ‘Vision statement’ from the International Council of Aircraft Owner and Pilot Associations (IAOPA)

(Provided by Mr. Niklas Larsson, IAOPA)

Applicability

The regulation should cover all aircraft that are not CMPA (Complex Motor-Powered Aircraft) and operated under Part-NCO or Part-SPO. This draft is aimed at motor powered fixed wing aircraft. We expect that our vision can be implemented together with those of other organizations.

Aircraft Maintenance Programme

Motor powered aircraft shall establish an AMP, Aircraft Maintenance Programme. This can be self-declared, or through a CAMO or a Maint.Org. When self-declared, the owner should consider the operating and environmental conditions. The aircraft owner is responsible for the airworthiness of the aircraft.

Maintenance

Maintenance shall be performed by Part-66 (or national equivalent), Maint.Org, L-license holder or the Pilot-Owner. An inspection shall take place every 100 hrs/12 months, whichever comes first. This inspection shall be documented in the technical logbook and be valid for another period of 100 hrs/12 months. (A CofA can be created to aid mutual recognition.)

Pilot-Owner maintenance shall be done according to Part-ML draft.

Airworthiness Review

The term “Airworthiness Review” shall be removed and an aircraft is considered airworthy if maintenance has been performed.

Findings

If the certifying staff/organization conducting the inspection finds the aircraft not airworthy, this shall be noted in the technical logbook. Findings that are serious flight hazards shall be reported to the state of registry.

ACAMs

ACAMs can be conducted by the competent authority. The owner shall be ready to present the aircraft and its documentation within a reasonable amount of time upon request.

AD/SB/SL/TBO

Only Airworthiness Directives (ADs) are mandatory. All other shall be regarded as recommendations and cannot be challenged by the state of registry/competent authority.



Appendix IV: ‘A very simple and light “Part-M” – continuing airworthiness for light aircraft in Europe’ from European Sailplane Manufacturers

(Provided by Mr. Werner Scholz, European Sailplane Manufacturers)

A very simple and light Part-M on one page with just 18 bullets:

1. The owner declares his aircraft to become an ELA-RS (ELA Recreational-Sport) aircraft.
2. In case of ELA1 aircraft this still allows any type of operation.
3. In case of an ELA2 aircraft above ELA1 this permits any non-commercial operations - commercial operations are permitted with the approval of the state of registry.
4. In case of an aircraft above ELA2 this permits only operations as declared by the owner to the state of registry with the approval of the state of registry.
5. The ELA-RS declaration has to be made to the state of registry, the insurance companies and must be clearly marked on the outside and inside of the aircraft cabin (or balloon basket).
6. If non-pilots are taken aboard, they have to sign a paper informing them, that they want to fly aboard an ELA-RS aircraft.
7. For any ELA-RS aircraft only the owner is responsible for the continuing airworthiness.
8. Once per year an annual inspection is required for an ELA-RS aircraft, which has to be completed by a Part-66 certifying staff person or an ELA-RS mechanic.
9. Operation of ELA-RS aircraft is allowed only within 12 months since the last annual inspection.
10. The privilege to train an ELA-RS mechanic is given to approved maintenance organisations and approved CAMOs.
11. The ELA-RS mechanic licence needs no involvement of the member state or EASA beside the regarding approval to the maintenance organisation (MF or 145) or CAMO.
12. The inspection during the annual check is done according to the design approval holder data or using the minimum inspection programme of Part-M / ML.
13. If the Part-66 independent certifying staff / ELA-RS mechanic finds the aircraft in a non-airworthy condition he has the right to mark this in the aircraft log book.
14. If following inspection by a Part-66 independent certifying staff / ELA-RS mechanic still finds this aircraft non-airworthy, then a full inspection within an approved maintenance organisation may be required by this Part-66 independent certifying staff / ELA-RS mechanic.
15. A full inspection conducted within an approved maintenance organisation is also required for conversion of an ELA-RS aircraft back into the regular Part-M / ML environment.
16. This full inspection is either based on an inspection developed by the manufacturer for lifetime extensions or needs an approval as full inspection using the EASA certification process.
17. Any Airworthiness Directives (ADs) need to be followed.
18. The obligations to report technical issues is also valid for ELA-RS aircraft owners / operators / ELA-RS mechanics.

