

***European Aviation Safety Agency***

---

**Acceptable Means of Compliance (AMC)  
and Guidance Material (GM)**

**to**

**Annex I (PART-M)  
to Regulation (EU) No 1321/2014<sup>1</sup>**

Issue 2

17.12.2015<sup>2</sup>

---

<sup>1</sup> 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)

<sup>2</sup> For the date of entry into force of this Issue, please refer to Decision 2015/029/R in the [Official Publication](#) of the Agency.

**CONTENTS**

AMC M.1.....	9
<b>SECTION A TECHNICAL REQUIREMENTS .....</b>	<b>10</b>
<b>SUBPART A — GENERAL .....</b>	<b>10</b>
<b>SUBPART B — ACCOUNTABILITY.....</b>	<b>11</b>
AMC M.A.201(e) Responsibilities .....	11
GM M.A.201(e) Aircraft maintenance programme.....	11
GM M.A.201(e), M.A.302(h) and M.A.901(l).....	11
AMC M.A.201(h) Responsibilities .....	13
AMC M.A.201(h)1 Responsibilities .....	14
AMC M.A.201(h)2 Responsibilities .....	15
AMC M.A.202(a) Occurrence reporting.....	16
AMC M.A.202(b) Occurrence reporting .....	16
<b>SUBPART C — CONTINUING AIRWORTHINESS.....</b>	<b>18</b>
AMC M.A.301(1) Continuing airworthiness tasks .....	18
AMC M.A.301(2) Continuing airworthiness tasks .....	18
AMC M.A.301(3) Continuing airworthiness tasks .....	19
AMC M.A.301(4) Continuing airworthiness tasks .....	19
AMC M.A.301(5) Continuing Airworthiness Tasks .....	19
AMC M.A.301(7) Continuing airworthiness tasks .....	19
AMC M.A.302 Aircraft maintenance programme .....	20
AMC M.A.302(a) Aircraft Maintenance Programme.....	20
AMC M.A.302(d) Aircraft maintenance programme.....	20
AMC M.A.302(e) Aircraft maintenance programme.....	21
AMC M.A.302(f) Aircraft maintenance programme.....	26
AMC M.A.302(h) Aircraft maintenance programme.....	26
AMC M.A.302(i) Aircraft maintenance programme.....	27
AMC M.A.304 Data for modifications and repairs .....	45
AMC M.A.305(d) Aircraft continuing airworthiness record system.....	45
AMC M.A.305(d)(4) and M.A.305(h) Aircraft continuing airworthiness record system .....	46
AMC M.A.305(h) Aircraft continuing airworthiness record system .....	46
GM M.A.302(h) Aircraft maintenance programme.....	47
AMC M.A.305(h)6 Aircraft continuing airworthiness record system .....	48
AMC M.A.306(a) Operators technical log system .....	48
AMC M.A.306(b) Operators technical log system .....	50
AMC M.A.307(a) Transfer of aircraft continuing airworthiness records.....	50
<b>SUBPART D — MAINTENANCE STANDARDS .....</b>	<b>51</b>

**CONTENTS**

AMC M.A.401(b) Maintenance data.....	51
AMC M.A.401(c) Maintenance data .....	51
AMC M.A.402(a) Performance of maintenance .....	52
AMC M.A.402(b) Performance of maintenance.....	53
AMC M.A.402(d) Performance of maintenance.....	54
AMC M.A.402(e) Performance of maintenance .....	54
AMC M.A.403(b) Aircraft defects .....	54
AMC M.A.403(d) Aircraft defects .....	54
<b>SUBPART E — COMPONENTS.....</b>	<b>56</b>
AMC M.A.501(a) Installation .....	56
AMC M.A.501(b) Installation .....	57
AMC M.A.501(c) Installation .....	57
AMC M.A.501(d) Installation .....	58
AMC M.A.502 Component maintenance .....	58
AMC M.A.502(b) and (c) Component maintenance.....	58
AMC M.A.504(a) Control of unserviceable components.....	59
AMC M.A.504(b) Control of unserviceable components .....	59
AMC M.A.504(c) Control of unserviceable components – unsalvageable components.....	59
AMC M.A.504(d)2 Control of unserviceable components .....	60
AMC M.A.504(e) Control of unserviceable components .....	61
<b>SUBPART F — MAINTENANCE ORGANISATION.....</b>	<b>62</b>
AMC M.A.602 Application .....	62
AMC M.A.603(a) Extent of Approval .....	62
AMC M.A.603(c) Extent of approval.....	63
AMC M.A.604 Maintenance organisation manual .....	64
AMC M.A.605(a) Facilities .....	64
AMC M.A.605(b) Facilities .....	65
AMC M.A.605(c) Facilities.....	65
AMC M.A.606(a) Personnel requirements .....	66
AMC M.A.606(b) Personnel requirements.....	66
AMC M.A.606(c) Personnel requirements .....	66
AMC M.A.606(d) Personnel requirements.....	67
AMC M.A.606(e) Personnel requirements .....	67
AMC M.A.606(f) Personnel requirements.....	67
AMC M.A.606(h)(2) Personnel requirements.....	68
AMC M.A.607 Certifying staff and airworthiness review staff.....	68
AMC M.A.607(c) Certifying staff and airworthiness review staff.....	69

**CONTENTS**

AMC M.A.608(a) Components, equipment and tools .....	70
AMC M.A.608(b) Components, equipment and tools .....	70
AMC M.A.609 Maintenance Data .....	70
AMC M.A.610 Maintenance work orders .....	70
AMC M.A.613(a) Component certificate of release to service .....	71
AMC M.A.614(a) Maintenance and airworthiness review records .....	75
AMC M.A.614(c) Maintenance and airworthiness review records .....	75
GM M.A.615 Privileges of the organisation .....	75
GM M.A.615(a) Privileges of the organisation .....	76
AMC M.A.615(b) Privileges of the organisation .....	76
AMC M.A.616 Organisational review .....	76
AMC M.A.617 Changes to the approved maintenance organisation .....	77
<b>SUBPART G — CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION .....</b>	<b>78</b>
AMC M.A.702 Application .....	78
AMC M.A.704 Continuing airworthiness management exposition .....	78
AMC M.A.705 Facilities .....	80
AMC M.A.706 Personnel requirements .....	80
AMC M.A.706(a) Personnel requirements .....	82
AMC M.A.706(e) Personnel requirements .....	82
AMC M.A.706(f) Personnel requirements .....	82
AMC M.A.706(i) Personnel requirements .....	82
AMC M.A.706(k) Personnel requirements .....	82
AMC M.A.707(a) Airworthiness review staff .....	82
AMC M.A.707(a)(1) Airworthiness review staff .....	83
AMC M.A.707(a)(2) Airworthiness review staff .....	84
AMC M.A.707(b) Airworthiness review staff .....	84
AMC M.A.707(c) Airworthiness review staff .....	85
AMC M.A.707(e) Airworthiness review staff .....	85
AMC M.A.708(b)3 Continuing Airworthiness Management .....	85
AMC M.A.708(c) Continuing airworthiness management .....	85
AMC M.A.708(c)(1) Continuing airworthiness management – unscheduled maintenance .....	87
AMC M.A.709 Documentation .....	87
GM M.A.709 Documentation .....	88
GM M.A.710 Airworthiness review .....	88
AMC M.A.710(a) Airworthiness review .....	89
AMC M.A.710(b) and (c) Airworthiness review .....	89
AMC M.A.710(d) Airworthiness review .....	90
AMC M.A.710(e) Airworthiness review .....	90

**CONTENTS**

AMC M.A.710(ga) Airworthiness review .....	90
GM M.A.710(h) Airworthiness review .....	91
AMC M.A.711(b) Privileges of the organisation .....	91
AMC M.A.711(c) Privileges of the organisation.....	91
AMC M.A.712(a) Quality system .....	92
AMC M.A.712(b) Quality System.....	92
AMC M.A.712(f) Quality system .....	93
AMC M.A.713 Changes to the approved continuing airworthiness organisation.....	93
AMC M.A.714 Record-keeping .....	94
<b>SUBPART H — CERTIFICATE OF RELEASE TO SERVICE – CRS .....</b>	<b>95</b>
AMC M.A.801 Aircraft certificate of release to service after embodiment of a Standard Change or a Standard Repair (SC/SR) .....	95
AMC M.A.801(b) Aircraft certificate of release to service .....	100
AMC M.A.801(d) Aircraft certificate of release to service .....	100
AMC M.A.801(f) Aircraft certificate of release to service .....	100
AMC M.A.801(g) Aircraft certificate of release to service.....	101
AMC M.A.801(h) Aircraft certificate of release to service .....	101
AMC M.A.802 Component certificate of release to service .....	101
AMC M.A.803 Pilot-owner authorisation .....	101
<b>SUBPART I — AIRWORTHINESS REVIEW CERTIFICATE .....</b>	<b>103</b>
AMC M.A.901 Aircraft airworthiness review.....	103
AMC M.A.901(a) Aircraft airworthiness review .....	103
AMC M.A.901(b) Aircraft airworthiness review .....	103
AMC M.A.901(c)2, (e)2 and (f) Aircraft airworthiness review.....	103
AMC M.A.901(d) and (g) Aircraft airworthiness review .....	104
AMC M.A.901(g) Aircraft airworthiness review .....	105
AMC M.A.901(j) Aircraft airworthiness review .....	105
AMC M.A.901(l)1 Aircraft airworthiness review .....	105
GM M.A.901(l)5 Aircraft airworthiness review .....	106
GM M.A.901(l)7 Aircraft airworthiness review .....	106
AMC M.A.903(a)1 Transfer of aircraft registration within the EU .....	106
AMC M.A.903(b) Transfer of aircraft registration within the EU .....	106
AMC M.A.904(a)1 Airworthiness reviews of aircraft imported into the EU .....	106
AMC M.A.904 (a)2 Airworthiness reviews of aircraft imported into the EU.....	107
AMC M.A.904(b) Airworthiness review of aircraft imported into the EU .....	107
<b>SECTION B PROCEDURE FOR COMPETENT AUTHORITIES .....</b>	<b>109</b>
<b>SUBPART A — GENERAL .....</b>	<b>109</b>

**CONTENTS**

AMC M.B.102(a) Competent authority - General.....	109
AMC M.B.102(c) Competent authority – Qualification and training.....	109
AMC M.B.102(d) Competent authority organisation - Procedures.....	110
AMC M.B.104(a) Record-keeping .....	110
AMC M.B.104(f) Record-keeping.....	110
AMC M.B.105(a) Mutual exchange of information .....	111
<b>SUBPART B — ACCOUNTABILITY.....</b>	<b>112</b>
<b>SUBPART C — CONTINUING AIRWORTHINESS.....</b>	<b>113</b>
AMC M.B.301(a) Maintenance programme .....	113
AMC M.B.301(b) Maintenance programme.....	113
AMC M.B.301(c) Maintenance Programme .....	114
AMC M.B.301(d) Maintenance programme.....	114
AMC M.B.303 Aircraft continuing airworthiness monitoring.....	114
AMC1 M.B.303(b) Aircraft continuing airworthiness monitoring .....	114
AMC2 M.B.303(b) Aircraft continuing airworthiness monitoring .....	115
AMC3 M.B.303(b) Aircraft continuing airworthiness monitoring .....	115
GM1 M.B.303(b) Aircraft continuing airworthiness monitoring .....	116
AMC M.B.303(c) Aircraft continuing airworthiness monitoring.....	116
<b>SUBPART D — MAINTENANCE STANDARDS .....</b>	<b>117</b>
<b>SUBPART E — COMPONENTS.....</b>	<b>118</b>
<b>SUBPART F — MAINTENANCE ORGANISATION.....</b>	<b>119</b>
AMC M.B.602(a) Initial approval .....	119
AMC M.B.602(b) Initial approval.....	119
AMC M.B.602(c) Initial approval .....	119
AMC M.B.602(e) Initial approval .....	119
AMC M.B.602(f) Initial approval.....	119
AMC M.B.602(g) Initial approval .....	120
AMC M.B.603(a) Issue of approval.....	120
AMC M.B.603(c) Issue of approval .....	121
AMC M.B.604(b) Continuing oversight.....	121
AMC M.B.605(a)(1) Findings.....	121
AMC M.B.606 Changes .....	121
<b>SUBPART G — CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION .....</b>	<b>123</b>
AMC M.B.701(a) Application .....	123
AMC M.B.702(a) Initial approval .....	123
AMC M.B.702(b) Initial approval.....	123

**CONTENTS**

AMC M.B.702(c) Initial approval .....	124
AMC M.B.702(e) Initial approval .....	124
AMC M.B.702(f) Initial approval.....	124
AMC M.B.702(g) Initial approval .....	124
AMC M.B.703 Issue of approval .....	125
AMC M.B.703(a) Issue of approval.....	126
AMC M.B.703(c) Issue of approval .....	126
AMC M.B.704(b) Continuing oversight.....	126
AMC M.B.705(a)(1) Findings.....	127
AMC M.B.706 Changes .....	127
<b>SUBPART H — CERTIFICATE OF RELEASE TO SERVICE — CRS .....</b>	<b>128</b>
<b>SUBPART I — AIRWORTHINESS REVIEW CERTIFICATE .....</b>	<b>129</b>
AMC M.B.901 Assessment of recommendations.....	129
AMC M.B.902(b) Airworthiness review by the competent authority .....	129
AMC M.B.902(b)(1) Airworthiness review by the competent authority.....	130
AMC M.B.902(b)(2) Airworthiness review by the competent authority.....	130
AMC M.B.902(c) Airworthiness review by the competent authority.....	130
<b>AMC AND GM TO APPENDICES TO PART-M.....</b>	<b>132</b>
AMC to Appendix II to Part-M Use of the EASA Form 1 for maintenance .....	132
GM to Appendix II to Part-M Use of the EASA Form 1 for maintenance .....	134
AMC to Appendix V to Part-M Maintenance Organisation Approval referred to in Annex I (Part-M) Subpart F .....	135
AMC to Appendix VI to Part-M Continuing Airworthiness Management Organisation Approval referred to in Annex I (Part-M) Subpart G.....	135
AMC to Appendix VII ‘Complex Maintenance Tasks’.....	135
AMC to Appendix VIII ‘Limited Pilot Owner Maintenance’ .....	135
<b>APPENDICES TO AMC'S AND GM.....</b>	<b>153</b>
Appendix I to AMC M.A.302 and AMC M.B.301(b) Content of the maintenance programme.....	153
Appendix II to AMC to M.A. 201(h)1 Sub-contracting of continuing airworthiness management tasks	162
Appendix III to GM1 M.B.303(b) KEY RISK ELEMENTS.....	168
Appendix IV to AMC M.A.604 Maintenance organisation manual .....	193
Appendix V to AMC M.A.704 Continuing airworthiness management exposition .....	198
Appendix VI to AMC M.B.602(f) EASA Form 6F.....	218
Appendix VII to AMC M.B.702(f) EASA Form 13.....	225
Appendix VIII to AMC M.A.616 Organisational Review.....	233
Appendix IX to AMC M.A.602 and AMC M.A.702 EASA Form 2 .....	237
Appendix X to AMC M.B.602(a) and AMC M.B.702(a) EASA Form 4.....	240

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**CONTENTS**

Appendix XI to AMC to M.A.708(c) Contracted maintenance.....	241
Appendix XII to AMC to M.A.706(f) and M.B.102(c) Fuel Tank Safety training.....	246
Appendix XIII to AMC M.A.712(f) Organisational review .....	250



**AMC M.1**

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.

**SECTION A TECHNICAL REQUIREMENTS**

**SUBPART A — GENERAL**

To be developed as appropriate.

**SUBPART B — ACCOUNTABILITY**

**AMC M.A.201(e) Responsibilities**

The limited contract for the development and, when applicable, processing of the approval of the aircraft maintenance programme should cover the responsibilities related to M.A.302(d), M.A.302(e) and M.A.302(g).

In the case of ELA1 aircraft not involved in commercial operations, the limited contract between the owner and the CAMO/maintenance organisation should cover the following aspects:

- Whether the maintenance programme will be based on the ‘Minimum Inspection Programme’ described in M.A.302(i);
- The obligation for the CAMO/maintenance organisation to develop and propose to the owner a maintenance programme which:
  - identifies the owner and the specific aircraft, engine, and propeller (as applicable);
  - includes all mandatory maintenance information and any additional tasks derived from the evaluation of the recommendations issued by the Design Approval Holder;
  - does not go below the requirements of the Minimum Inspection Programme; and
  - is customised to the particular aircraft type, configuration and operation, in accordance with M.A.302(h)3.
- Whether the maintenance programme is going to be approved by the competent authority or the owner is going to issue a declaration for the maintenance programme.
  - In the case of approval by the competent authority, whether indirect approval by the CAMO is permitted or not.
  - In the case of declaration by the owner, a statement in the contract making clear that the owner assumes full responsibility for any deviations introduced to the maintenance programme proposed by the CAMO/maintenance organisation.

**GM M.A.201(e) Aircraft maintenance programme**

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

**GM M.A.201(e), M.A.302(h) and M.A.901(l)**

**Maintenance Programme development and approval (for private aircraft other than large \*)**

\* This means aircraft for which M.A.201(f), (g), (h), and (i) do not apply.

The following table provides a summary of the provisions contained in M.A.201(e), AMC M.A.201(e), and GM M.A.201(e):

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART B — ACCOUNTABILITY**

	<b>OPTION 1 (for private aircraft other than large)</b>	<b>OPTION 2 (for private aircraft other than large)</b>	<b>OPTION 3 (for ELA2 aircraft not involved in commercial operations)</b>
<b>Development and processing of the approval of the maintenance programme</b>	Performed by the owner	Contracted to a CAMO (whether it is done through a full contract for the continuing airworthiness management of the aircraft or through a limited contract for the development and processing of the maintenance programme)	Contracted to a Part-145 or M.A. Subpart F maintenance organisation (see M.A.201(e)(ii))
<b>Approval/Declaration of the maintenance programme</b>	Direct approval by the NAA  or  Declaration by the owner (only for ELA1 aircraft not involved in commercial operations, see M.A.302(h))	Direct approval by the NAA  or  Indirect approval by the contracted CAMO  or  Declaration by the owner (only for ELA1 aircraft not involved in commercial operations, see M.A.302(h))	Direct approval by the NAA  or  Declaration by the owner (only for ELA1 aircraft not involved in commercial operations, see M.A.302(h))

**Maintenance Programme content and airworthiness review (for all aircraft)**

The following table provides a summary of the provisions contained in M.A.302 and AMC M.A.901 in relation to the content of the maintenance programme, its approval and its link with the airworthiness review:

	<b>OPTION 1 (for all aircraft)</b>	<b>OPTION 2 (for ELA1 aircraft not involved in commercial operations)</b>
<b>Basic information used for the maintenance programme</b>	Maintenance data from the Design Approval Holder (complying with M.A.302(d) and (e))	‘Minimum Inspection Programme’ (see M.A.302(h)2 and M.A.302(i)) <b>(not applicable to airships)</b>
<b>Customisation to a particular aircraft registration</b>	Complying with M.A.302(e) or Using the template in AMC M.A.302(e) <b>(only for other-than-complex motor-powered aircraft)</b>	Using the template in AMC M.A.302(e)
<b>Approval/Declaration of the maintenance programme</b>	Direct approval by NAA or Indirect approval by contracted CAMO or Declaration by the owner (see M.A.302(h)) <b>(only for ELA1 aircraft not involved in commercial operations, see M.A.302(h))</b>	Direct approval by NAA or Indirect approval by contracted CAMO or Declaration by the owner (see M.A.302(h)) <b>(only for ELA1 aircraft not involved in commercial operations, see M.A.302(h))</b>
<b>Performance of Airworthiness Review and issue of Airworthiness Review Certificate</b>	CAMO or NAA	NAA or CAMO or Part-145/M.A. Subpart F maintenance organisation (when combined with annual inspection, see M.A.901(l))

**AMC M.A.201(h) Responsibilities**

1. Reference to aircraft includes the components fitted to or intended to be fitted to the aircraft.
2. The performance of ground de-icing and anti-icing activities does not require a Part-145 maintenance organisation approval. Nevertheless, inspections required to detect, and when necessary eliminate de-icing and/or anti-icing fluid residues are considered maintenance. Such inspections may only be carried out by suitably authorised personnel.
3. The requirement means that the operator is responsible for determining what maintenance is required, when it has to be performed and by whom and to what standard, in order to ensure the continued airworthiness of the aircraft being operated.

4. An operator should therefore have adequate knowledge of the design status (type specification, customer options, airworthiness directives (AD), airworthiness limitations contained in CS-25 Book 1, Appendix H, paragraph H25.4, fuel tank system airworthiness limitations including Critical Design Configuration Control Limitations (CDCCL) modifications, major repairs, operational equipment) and required and performed maintenance. The status of aircraft design and maintenance should be adequately documented to support the performance of the quality system.
5. An operator should establish adequate co-ordination between flight operations and maintenance to ensure that both will receive all information on the condition of the aircraft necessary to enable both to perform their tasks.
6. The requirement does not mean that an operator himself performs the maintenance (this is to be done by a maintenance organisation approved under Part-145) but that the operator carries the responsibility for the airworthy condition of aircraft it operates and thus should be satisfied before the intended flight that all required maintenance has been properly carried out.
7. When an operator is not appropriately approved in accordance with Part-145, the operator should provide a clear work order to the maintenance contractor. The fact that an operator has contracted a maintenance organisation approved under Part-145 should not prevent it from checking at the maintenance facilities on any aspect of the contracted work if he wishes to do so to satisfy his responsibility for the airworthiness of the aircraft.

**AMC M.A.201(h)1 Responsibilities**

1. An operator only needs to be approved for the management of the continuing airworthiness of the aircraft listed on its AOC. The approval to carry out airworthiness reviews is optional.
2. This approval does not prevent the operator subcontracting certain continuing airworthiness management tasks to competent persons or organisations. This activity is considered as an integral element of the operator's M.A. Subpart G approval. The regulatory monitoring is exercised through the operator's M.A. Subpart G approval. The contracts should be acceptable to the competent authority.
3. The accomplishment of continuing airworthiness activities forms an important part of the operator's responsibility with the operator remaining accountable for satisfactory completion irrespective of any contract that may be established.
4. Part-M does not provide for organisations to be independently approved to perform continuing airworthiness management tasks on behalf of commercial air transport operators. The approval of such activity is vested in the operator's air operator's certificate (AOC). The sub-contracted organisation is considered to perform the continuing airworthiness management tasks as an integral part of the operator's continuing airworthiness management system, irrespective of any other approval held by the subcontractor including a M.A. Subpart G approval.
5. The operator is ultimately responsible and therefore accountable for the airworthiness of its aircraft. To exercise this responsibility the operator should be satisfied that the actions taken by sub-contracted organisations meet the standards required by M.A. Subpart G. The operator's management of such activities should therefore be accomplished
  - (a) by active control through direct involvement and/or
  - (b) by endorsing the recommendations made by the sub-contracted organisation.
6. In order to retain ultimate responsibility the operator should limit sub-contracted tasks to the activities specified below:
  - (a) airworthiness directive analysis and planning

- (b) service bulletin analysis
  - (c) planning of maintenance
  - (d) reliability monitoring, engine health monitoring
  - (e) maintenance programme development and amendments
  - (f) any other activities which do not limit the operators' responsibilities as agreed by the competent authority.
7. The operator's management controls associated with sub-contracted continuing airworthiness management tasks should be reflected in the associated written contract and be in accordance with the operator's policy and procedures defined in his continuing airworthiness management exposition. When such tasks are sub-contracted the operator's continuing airworthiness management system is considered to be extended to the sub-contracted organisation.
  8. With the exception of engines and auxiliary power units, contracts would normally be limited to one organisation per aircraft type for any combination of the activities described in Appendix II. Where arrangements are made with more than one organisation the operator should demonstrate that adequate co-ordination controls are in place and that the individual responsibilities are clearly defined in related contracts.
  9. Contracts should not authorise the sub-contracted organisation to sub-contract to other organisations elements of the continuing airworthiness management tasks.
  10. The operator should ensure that any findings arising from the competent authority monitoring of the sub-contracted continuing airworthiness management tasks will be closed to the satisfaction of the competent authority. This provision should be included in the contract.
  11. The sub-contracted organisation should agree to notify the respective operators of any changes affecting the contracts as soon as practical. The operator should then inform its competent authority. Failure to do so may invalidate the competent authority acceptance of the contract.
  12. Appendix II provides information on the sub-contracting of continuing airworthiness management tasks.
  13. The operator should only sub-contract to organisations which are specified by the competent authority on EASA Form 14.

**AMC M.A.201(h)2 Responsibilities**

1. The requirement is intended to provide for the possibility of the following three alternative options:
  - (a) an operator to be approved in accordance with Part-145 to carry out all maintenance of the aircraft and components;
  - (b) an operator to be approved in accordance with Part-145 to carry out some of the maintenance of the aircraft and components. This, at minimum, could be limited line maintenance but may be considerably more but still short of option (a);
  - (c) An operator not approved in accordance with Part-145.
2. An operator or prospective operator may apply for any one of these options but it will be for the competent authority to determine which option may be accepted in each particular case.
  - 2.1. To make this determination the competent authority will apply the primary criteria of relevant operator experience if carrying out some or all maintenance on comparable aircraft. Therefore where an operator applies for option (a) – all maintenance – the competent authority will need to be satisfied that the operator has sufficient experience of

carrying out all maintenance on a comparable type. For example, assuming that the experience is judged satisfactory, then it is reasonable from the maintenance viewpoint to add a different wide bodied aircraft to an existing wide bodied fleet. If the experience is not satisfactory or too limited the competent authority may choose either to require more experienced management and/or more experienced release to service staff or may refuse to accept the new wide bodied aircraft if extra experienced staff cannot be found. Option (b) or (c) may be possible alternatives.

- 2.2. Where an operator applies for option (b) – some maintenance or the competent authority has been unable to accept an application for option (a) – then satisfactory experience is again the key but in this case the satisfactory experience is related to the reduced maintenance of this option. If the experience is not satisfactory or too limited the competent authority may choose to require more experienced staff or may refuse to accept the application if such staff cannot be found. Option (c) may be the possible alternative. Option (c) accepts that the operator either does not have satisfactory experience or has only limited experience of some maintenance.
- 2.3. The competent authority will require an operator to enter into a contract with an appropriately approved Part-145 organisation except in those cases where the competent authority believes that it is possible to obtain sufficient satisfactorily experienced staff to provide the minimal maintenance support for option (b), in which case option (b) would apply.
- 2.4. In respect of this paragraph, ‘experience’ means staff who have proven evidence that they were directly involved with at least line maintenance of similar aircraft types for not less than 12 months. Such experience should be demonstrated to be satisfactory. An operator is required to have enough personnel meeting the requirement of M.A.706 to manage the maintenance responsibility whichever option is used.

#### **AMC M.A.202(a) Occurrence reporting**

Accountable persons or organisations should ensure that the type certificate (TC) holder receives adequate reports of occurrences for that aircraft type, to enable it to issue appropriate service instructions and recommendations to all owners or operators.

Liaison with the TC holder is recommended to establish whether published or proposed service information will resolve the problem or to obtain a solution to a particular problem.

An approved continuing airworthiness management or maintenance organisation should assign responsibility for co-ordinating action on airworthiness occurrences and for initiating any necessary further investigation and follow-up activity to a suitably qualified person with clearly defined authority and status.

In respect of maintenance, reporting a condition which endangers flight safety is normally limited to:

- serious cracks, permanent deformation, burning or serious corrosion of structure found during scheduled maintenance of the aircraft or component.
- failure of any emergency system during scheduled testing.

#### **AMC M.A.202(b) Occurrence reporting**

The reports may be transmitted by any method, i.e. electronically, by post or by facsimile.

Each report should contain at least the following information:

- reporter or organisation’s name and approval reference if applicable,
- information necessary to identify the subject aircraft and/or component,



**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART B — ACCOUNTABILITY**

- date and time relative to any life or overhaul limitation in terms of flying hours/cycles/landings etc., as appropriate,
- details of the occurrence.

AMC 20-8 General Acceptable Means of Compliance for Airworthiness of Products, Parts and Appliances provides further guidance on occurrence reporting.

**SUBPART C — CONTINUING AIRWORTHINESS**

**AMC M.A.301(1) Continuing airworthiness tasks**

1. With regard to the pre-flight inspection it is intended to mean all of the actions necessary to ensure that the aircraft is fit to make the intended flight. These should typically include but are not necessarily limited to:
  - (a) a walk-around type inspection of the aircraft and its emergency equipment for condition including, in particular, any obvious signs of wear, damage or leakage. In addition, the presence of all required equipment including emergency equipment should be established.
  - (b) an inspection of the aircraft continuing airworthiness record system or the operators technical log as applicable to ensure that the intended flight is not adversely affected by any outstanding deferred defects and that no required maintenance action shown in the maintenance statement is overdue or will become due during the flight.
  - (c) a control that consumable fluids, gases etc. uplifted prior to flight are of the correct specification, free from contamination, and correctly recorded.
  - (d) a control that all doors are securely fastened.
  - (e) a control that control surface and landing gear locks, pitot/static covers, restraint devices and engine/aperture blanks have been removed.
  - (f) a control that all the aircraft's external surfaces and engines are free from ice, snow, sand, dust etc. and an assessment to confirm that, as the result of meteorological conditions and de-icing/anti-icing fluids having been previously applied on it, there are no fluid residues that could endanger flight safety. Alternatively to this pre-flight assessment, when the type of aircraft and nature of operations allow for it, the build-up of residues may be controlled through scheduled maintenance inspections/cleanings identified in the approved maintenance programme.
2. Tasks such as oil and hydraulic fluid uplift and tyre inflation may be considered as part of the pre-flight inspection. The related pre-flight inspection instructions should address the procedures to determine where the necessary uplift or inflation results from an abnormal consumption and possibly requires additional maintenance action by the approved maintenance organisation or certifying staff as appropriate.
3. In the case of commercial air transport, an operator should publish guidance to maintenance and flight personnel and any other personnel performing pre-flight inspection tasks, as appropriate, defining responsibilities for these actions and, where tasks are contracted to other organisations, how their accomplishment is subject to the quality system of M.A.712. It should be demonstrated to the competent authority that pre-flight inspection personnel have received appropriate training for the relevant pre-flight inspection tasks. The training standard for personnel performing the pre-flight inspection should be described in the operator's continuing airworthiness management exposition.

**AMC M.A.301(2) Continuing airworthiness tasks**

In the case of commercial air transport the operator should have a system to ensure that all defects affecting the safe operation of the aircraft are rectified within the limits prescribed by the approved minimum equipment list (MEL) or configuration deviation list (CDL) as appropriate. Also that such defect rectification cannot be postponed unless agreed by the operator and in accordance with a procedure approved by the competent authority.

In the case of commercial air transport or large aircraft, a system of assessment should be in operation to support the continuing airworthiness of an aircraft and to provide a continuous analysis of the effectiveness of the CAMO defect control system in use.

The system should provide for:

- (a) significant incidents and defects: monitor incidents and defects that have occurred in flight and defects found during maintenance and overhaul, highlighting any that appear significant in their own right.
- (b) repetitive incidents and defects: monitor on a continuous basis defects occurring in flight and defects found during maintenance and overhaul, highlighting any that are repetitive.
- (c) deferred and carried forward defects: Monitor on a continuous basis deferred and carried forward defects. Deferred defects are defined as those defects reported in operational service which are deferred for later rectification. Carried forward defects are defined as those defects arising during maintenance which are carried forward for rectification at a later maintenance input.
- (d) unscheduled removals and system performance: analyse unscheduled component removals and the performance of aircraft systems for use as part of the maintenance programme efficiency.

When deferring or carrying forward a defect the cumulative effect of a number of deferred or carried forward defects occurring on the same aircraft and any restrictions contained in the MEL should be considered. Whenever possible, deferred defects should be made known to the pilot/flight crew prior to their arrival at the aircraft.

#### **AMC M.A.301(3) Continuing airworthiness tasks**

The owner or CAMO as applicable should have a system to ensure that all aircraft maintenance checks are performed within the limits prescribed by the approved aircraft maintenance programme and that, whenever a maintenance check cannot be performed within the required time limit, its postponement is allowed in accordance with a procedure agreed by the appropriate competent authority.

#### **AMC M.A.301(4) Continuing airworthiness tasks**

The operator or the contracted CAMO as applicable should have a system to analyse the effectiveness of the maintenance programme, with regard to spares, established defects, malfunctions and damage, and to amend the maintenance programme accordingly.

#### **AMC M.A.301(5) Continuing Airworthiness Tasks**

Operational directives with a continuing airworthiness impact include operating rules such as extended twin-engine operations (ETOPS) / long range operations (LROPS), reduced vertical separation minima (RVSM), MNPS, all weather operations (AWOPS), RNAV, etc.

Any other continued airworthiness requirement made mandatory by the Agency includes TC related requirements such as: certification maintenance requirements (CMR), certification life limited parts, airworthiness limitations contained in CS-25 Book 1, Appendix H, paragraph H25.4, fuel tank system airworthiness limitations including Critical Design Configuration Control Limitations (CDCCL) etc.

#### **AMC M.A.301(7) Continuing airworthiness tasks**

An operator or a contracted CAMO as applicable should establish and work to a policy, which assesses non mandatory information related to the airworthiness of the aircraft. Non mandatory information such as

service bulletins, service letters and other information that is produced for the aircraft and its components by an approved design organisation, the manufacturer, the competent authority or the Agency.

**AMC M.A.302 Aircraft maintenance programme**

NOTE: This AMC is not applicable to those ELA1 aircraft not involved in commercial operations for which the owner has elected to apply the provisions of M.A.302(h). For those cases, refer to AMC M.A.302(h).

1. The term 'maintenance programme' is intended to include scheduled maintenance tasks the associated procedures and standard maintenance practises. The term 'maintenance schedule' is intended to embrace the scheduled maintenance tasks alone.
2. The aircraft should only be maintained to one approved maintenance programme at a given point in time. Where an owner or operator wishes to change from one approved programme to other, a transfer check or inspection may need to be performed in order to implement the change.
3. The maintenance programme details should be reviewed at least annually. As a minimum revisions of documents affecting the programme basis need to be considered by the owner or operator for inclusion in the maintenance programme during the annual review. Applicable mandatory requirements for compliance with Part-21 should be incorporated into the owner or operator's maintenance programme as soon as possible.
4. The aircraft maintenance programme should contain a preface which will define the maintenance programme contents, the inspection standards to be applied, permitted variations to task frequencies and, where applicable, any procedure to manage the evolution of established check or inspection intervals.
5. Repetitive maintenance tasks derived from modifications and repairs should be incorporated into the approved maintenance programme.
6. Appendix I to AMC M.A.302 provides detailed information on the contents of an approved aircraft maintenance programme.

**AMC M.A.302(a) Aircraft Maintenance Programme**

A maintenance programme may indicate that it applies to several aircraft registrations as long as the maintenance programme clearly identifies the effectivity of the tasks and procedures that are not applicable to all of the listed registrations.

**AMC M.A.302(d) Aircraft maintenance programme**

1. An aircraft maintenance programme should normally be based upon the maintenance review board (MRB) report where applicable, the maintenance planning document (MPD), the relevant chapters of the maintenance manual or any other maintenance data containing information on scheduling. Furthermore, an aircraft maintenance programme should also take into account any maintenance data containing information on scheduling for components.
2. Instructions issued by the competent authority can encompass all types of instructions from a specific task for a particular aircraft to complete recommended maintenance schedules for certain aircraft types that can be used by the owner/operator directly. These instructions may be issued by the competent authority in the following cases:
  - in the absence of specific recommendations of the Type Certificate Holder.

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART C — CONTINUING AIRWORTHINESS**

- to provide alternate instructions to those described in the subparagraph 1 above, with the objective of providing flexibility to the operator.
3. Where an aircraft type has been subjected to the MRB report process, an operator should normally develop the initial aircraft maintenance programme based upon the MRB report.
  4. Where an aircraft is maintained in accordance with an aircraft maintenance programme based upon the MRB report process, any associated programme for the continuous surveillance of the reliability, or health monitoring of the aircraft should be considered as part of the aircraft maintenance programme.
  5. Aircraft maintenance programmes for aircraft types subjected to the MRB report process should contain identification cross reference to the MRB report tasks such that it is always possible to relate such tasks to the current approved aircraft maintenance programme. This does not prevent the approved aircraft maintenance programme from being developed in the light of service experience to beyond the MRB report recommendations but will show the relationship to such recommendations.
  6. Some approved aircraft maintenance programmes, not developed from the MRB process, utilise reliability programmes. Such reliability programmes should be considered as a part of the approved maintenance programme.
  7. Alternate and/or additional instructions to those defined in paragraphs M.A.302(d)(i) and (ii), proposed by the owner or the operator, may include but are not limited to the following:
    - Escalation of the interval for certain tasks based on reliability data or other supporting information. Appendix I to AMC M.A.302 and M.B.301(b) recommends that the maintenance programme contains the corresponding escalation procedures. The escalation of these tasks is directly approved by the competent authority, except in the case of ALIs (Airworthiness Limitations), which are approved by the Agency.
    - More restrictive intervals than those proposed by the TC holder as a result of the reliability data or because of a more stringent operational environment.
    - Additional tasks at the discretion of the operator

**AMC M.A.302(e) Aircraft maintenance programme**

Except for complex motor-powered aircraft, the aircraft maintenance programme may take the format of the following standard template:

<b>Aircraft Maintenance Programme (for aircraft other than ‘complex motor-powered aircraft’)</b>			
<b>Aircraft identification</b>			
1	Registration(s):	Type:	Serial No (s):
<b>Basis for the Maintenance Programme</b>			
2	<p><b>This Aircraft Maintenance Programme complies with <u>(tick one option)</u>:</b></p> <p style="padding-left: 40px;">M.A.302(b), (c), (d), (e) and (g) <input type="checkbox"/> <b>(Complete section 3 below), or</b></p> <p style="padding-left: 40px;">M.A.302(h) <input type="checkbox"/> <b>(Only possible for ELA1 aircraft not used in commercial operations)</b></p>		

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART C — CONTINUING AIRWORTHINESS**

<p><b>For Aircraft Maintenance Programmes complying with M.A.302(h) (see above) the following data is used (<u>tick one option</u>):</b></p> <p>Design Approval Holder Maintenance Data <input type="checkbox"/> (<b>Complete section 3 below</b>), or</p> <p>Minimum Inspection Programme as detailed in the latest revision of AMC M.A.302(i) <input type="checkbox"/>, or</p> <p>Other Minimum Inspection Programme complying with M.A.302(i) <input type="checkbox"/> (<b>List the tasks in Appendix A to this Aircraft Maintenance Programme</b>)</p>				
<b>Design Approval Holder Maintenance Data (not applicable if using Minimum Inspection Programmes)</b>				
3	<b>Equipment manufacturer and type</b>		<b>Applicable maintenance data reference (at latest revision)</b>	
<b>For aircraft other than balloons</b>				
3a	<b>Aircraft (other than balloons)</b>			
3b	Engine (if applicable)			
3c	Propeller (if applicable)			
<b>For balloons</b>				
3d	<b>Envelope (only for balloons)</b>			
3e	<b>Basket(s) (only for balloons)</b>			
3f	<b>Burner(s) (only for balloons)</b>			
3g	<b>Fuel cylinders (only for balloons)</b>			
<b>Additional maintenance requirements not covered above (applicable to all Aircraft Maintenance Programmes, regardless of whether they are based on Design Approval Holder Data or Minimum Inspection Programmes)</b>				
4	<b>Indicate if any of the following additional maintenance requirements are applicable (when replying 'YES', list the specific requirements in Appendix B to this Aircraft Maintenance Programme)</b>		Yes	No
	Maintenance related to specific equipment and modifications			
	Maintenance related to repairs implemented in the aircraft			
	Maintenance related to life-limited components			
	Maintenance related to Mandatory Continuing Airworthiness Information (ALIs, CMRs, specific			

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART C — CONTINUING AIRWORTHINESS**

	requirements in the Type Certificate Data Sheet (TCDS), etc.)		
	Maintenance related to repetitive Airworthiness Directives		
	Maintenance related to specific operational/airspace directives/requirements (altimeter, compass, transponder, etc.)		
	Maintenance related to the type of operation or to operational approvals such as Reduced Vertical Separation Minima (RVSM), Minimum Navigation Performance Specification (MNPS), Basic Area Navigation (B-NAV).		
5	<b>Indicate if there are any specific maintenance recommendations made in Service Bulletins, Service Letters, etc, that are applicable (when replying 'YES', list all the specific recommendations and any deviations in Appendix B to this Aircraft Maintenance Programme)</b>	Yes	No

**Pilot-owner maintenance (only for privately operated non-complex motor-powered aircraft of 2 730 kg MTOM and below, sailplanes, powered-sailplanes and balloons)**

6	<p><b>Does the Pilot-owner perform Pilot-owner maintenance (ref. Part-M, M.A.803)?</b></p> <p>If yes, enter the name of the pilot-owner(s) or the alternative procedure described in AMC M.A.803 point 3:</p> <p>Pilot-owner name: _____ Licence Number: _____</p> <p>Signature: _____ Date: _____</p> <p><b>If yes, list in Appendix B to this Aircraft Maintenance Programme the deviations to the list of Pilot-owner maintenance tasks contained in the AMC to Appendix VIII to Part-M (tasks which are not performed by the Pilot-owner and additional tasks performed)</b></p>	Yes	No
---	--	-----	----

**Record of periodic reviews of the Aircraft Maintenance Programme (in accordance with M.A.302(g) or M.A.302(h)5, as applicable)**

7	Describe whether the review has resulted or not in changes to the Aircraft Maintenance Programme (any changes introduced will be described in field 8 below)	Date and signature

**Revision control of the Aircraft Maintenance Programme**

8	Rev. No	Content of revision	Date and signature

**Approval/Declaration of the Maintenance Programme (select the appropriate option)**

9	Declaration by owner: <input type="checkbox"/>	Approval by contracted CAMO (only under 'indirect approval procedure' approved by the competent	Approval by Competent Authority: <input type="checkbox"/>
---	--	---	---

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART C — CONTINUING AIRWORTHINESS**

		authority responsible for the Aircraft Maintenance Programme): <input type="checkbox"/>	
	<b><i>'I hereby declare that this is the maintenance programme applicable to the aircraft referred to in field 1 and I am fully responsible for its content and, in particular, for any deviations from the Design Approval Holder's recommendations'</i></b>	Approval Reference No of the CAMO:	Competent Authority:
	Signature/Name/Date:	Signature/Name/Date:	Signature/Name/Date:
<b>Certification statement</b>			
10	<b><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></b>		
	Signed by the person/organisation responsible for the continuing airworthiness of the aircraft according to M.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:		
11	Appendices attached:		
	— Appendix A YES <input type="checkbox"/> NO <input type="checkbox"/>		
	— Appendix B YES <input type="checkbox"/> NO <input type="checkbox"/>		

**Appendix A 'Minimum Inspection Programme' (only applicable if a Minimum Inspection Programme different from the one described in AMC M.A.302(i) is used) (see Section 2 above)**

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



**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART C — CONTINUING AIRWORTHINESS**

<b>Appendix B ‘Additional Maintenance Requirements’ and ‘Pilot-owner maintenance’ (include only if applicable) (see Sections 4, 5 and 6 above)</b>				
<b>Task Description</b>		<b>References</b>		<b>Interval</b>
<b>Maintenance related to specific equipment and modifications</b>				
<b>Maintenance related to repairs implemented in the aircraft</b>				
<b>Maintenance related to life-limited components</b>				
<b>Maintenance related to Mandatory Continuing Airworthiness Instructions (ALIs, CMRs, specific requirements in the TCDS, etc.)</b>				
<b>Maintenance related to repetitive Airworthiness Directives</b>				
<b>Maintenance related to specific operational/airspace directives/requirements (altimeter, compass, transponder, etc.)</b>				
<b>Maintenance related to the type of operation or operational approvals</b>				
<b>Task Description</b>	<b>Recommended interval</b>	<b>Indicate: ‘Adopted’, or ‘Not adopted’, or ‘Adopted with</b>	<b>Alternative inspection/task (if adopted with deviations)</b>	<b>Amended interval (if adopted with deviations)</b>

		deviations'		
Maintenance recommendations contained in Service Bulletins, Service Letters, etc.				
NOTE : List all the applicable maintenance recommendations, even those for which it has been decided not to accomplish the task or to accomplish it with deviations.				
<b>Task Description (Pilot-owner maintenance)</b>				
Pilot-owner maintenance tasks contained in AMC to Appendix VIII to Part-M which are not performed by the Pilot-owner				
Pilot-owner maintenance tasks performed by the Pilot-owner additional to those contained in AMC to Appendix VIII to Part-M				

**AMC M.A.302(f) Aircraft maintenance programme**

1. Reliability programmes should be developed for aircraft maintenance programmes based upon maintenance steering group (MSG) logic or those that include condition monitored components or that do not contain overhaul time periods for all significant system components.
2. Reliability programmes need not be developed for aircraft not considered as large aircraft or that contain overhaul time periods for all significant aircraft system components.
3. The purpose of a reliability programme is to ensure that the aircraft maintenance programme tasks are effective and their periodicity is adequate.
4. The reliability programme may result in the escalation or deletion of a maintenance task, as well as the de-escalation or addition of a maintenance task
5. A reliability programme provides an appropriate means of monitoring the effectiveness of the maintenance programme.
6. Appendix I to AMC M.A.302 and M.B.301(d) gives further guidance.

**AMC M.A.302(h) Aircraft maintenance programme**

NOTE: This AMC is applicable to those ELA1 aircraft not involved in commercial operations for which the owner has elected to apply the provisions of M.A.302(h).

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 in AMC M.A.302(e).
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 in the documents affecting the programme basis, such as the M.A.302(i) 'Minimum Inspection Programme' or the Design Approval Holder data.
- Applicable mandatory requirements for compliance with Part-21, such as Airworthiness Directives, Airworthiness Limitations, Certification Maintenance Requirements and specific maintenance requirements contained in the TCDS.

For the purpose of reviewing the results of the maintenance performed during that year, the airworthiness review staff should request the owner/CAMO to provide 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 recommendations from the Design Approval Holder which were initially disregarded by the owner.

#### **AMC M.A.302(i) Aircraft maintenance programme**

This AMC contains an acceptable 'Minimum Inspection Programme' for the following categories of ELA1 aircraft not involved in commercial operations:

- ELA1 aeroplanes;
- ELA1 sailplanes and ELA1 powered sailplanes; and
- ELA1 hot-air balloons.

Although this AMC does not contain an acceptable 'Minimum Inspection Programme' for gas balloons, the use of a 'Minimum Inspection Programme' is still possible as long as it complies with the requirements established in M.A.302(i).

The 'Minimum Inspection Programmes' defined in this AMC already comply with the requirements established in M.A.302(i) and may be used in order to define the basic information for the maintenance programme as required by M.A.302(h)2. However, the maintenance programme must be customised as required by M.A.302(h)3, which may be done by using the standard template contained in AMC M.A.302(e).

It must be noted that using the '1-month' tolerance permitted by M.A.302(i)1 for the annual inspection may result in an expired ARC.

#### **Minimum Inspection Programme for ELA1 aeroplanes not involved in commercial operations**

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

A tolerance of one month or 10 h may be applied. However, the next interval shall be calculated from the date/hours originally scheduled (without the tolerance).

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.

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART C — CONTINUING AIRWORTHINESS**

<b>ELA1 aeroplanes not involved in commercial operations</b>	
<b>System/component/area</b>	<b>Task &amp; Inspection detail</b>
<b>GENERAL</b>	
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 the 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 are 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.
<b>AIRFRAME</b>	
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.

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART C — CONTINUING AIRWORTHINESS**

<b>CABIN AND COCKPIT</b>	
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 the Flight Manual.
Flight and engine controls	Inspect for improper installation and improper operation.
Speed/weight/manoeuvre placard	Check that the 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.
<b>LANDING GEAR</b>	
Shock-absorbing devices	Inspect for improper 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.
Tyres	Inspect for wear and cuts.

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART C — CONTINUING AIRWORTHINESS**

Brakes	<p>Inspect for improper adjustment and wear.</p> <p>Carry out operational test.</p>
Floats and skis	Inspect for insecure attachment and apparent defects.
<b>WING AND CENTRE SECTION</b>	
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.
<b>FLIGHT CONTROLS</b>	
Control circuit/stops	Inspect control rods and cables. Check that the control stops are secure and make contact.
Control surfaces	<p>Inspect aileron, flap, elevator, air brake and rudder assemblies, hinges, control connections, springs/bungees, tapes and seals.</p> <p>Check and record range of movement and cable tensions, if specified, and check free play.</p>
Trim systems	<p>Inspect trim surfaces, controls, and connections.</p> <p>Check full range of motion.</p>
<b>EMPENNAGE</b>	
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.
<b>AVIONICS AND ELECTRICS</b>	
Batteries	Inspect for improper installation, improper charge and spillage and corrosion.
Radio and electronic equipment	<p>Inspect for improper installation and insecure mounting.</p> <p>Carry out ground function test.</p>

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART C — CONTINUING AIRWORTHINESS**

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.
<b>POWERPLANT</b>	
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.

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART C — CONTINUING AIRWORTHINESS**

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.
<b>CLUTCHES AND GEARBOXES</b>	
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.
<b>PROPELLER</b>	
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.
<b>MISCELLANEOUS</b>	
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.
<b>OPERATIONAL CHECKS</b>	
Power and revolutions per minute (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.



**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART C — CONTINUING AIRWORTHINESS**

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 ELA1 sailplanes and ELA1 powered sailplanes not involved in commercial operations**

To be performed:

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

A tolerance of one month or 10 h, as applicable, may be applied. However, the next interval shall be calculated from the date/hours originally scheduled (without the tolerance).

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.

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART C — CONTINUING AIRWORTHINESS**

<b>ELA1 sailplanes and ELA1 powered sailplanes not involved in commercial operations</b>	
<b>System/component/area</b>	<b>Task &amp; Inspection detail</b>
<b>GENERAL</b>	
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 the 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.
<b>AIRFRAME</b>	
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 and all accessible tubing for security, damage, cleanliness, and condition. Drain any water from condensation drains.
Bonding/vents drains	Check all bonding leads and straps. Check that all vents and drains are clear from debris.

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART C — CONTINUING AIRWORTHINESS**

<b>CABIN AND COCKPIT</b>	
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.
Flight control circuits/stops	Inspect flight controls 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.  Inspect self-connecting control devices.
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 the manufacturer's instructions.  Check markings of instruments in accordance with the Flight Manual.
Oxygen system	Inspect oxygen system. Check bottle hydrostatic test date expiry in accordance with the manufacturer's recommendations. Ensure that the bottle is not completely empty (13,8 bars/200 psi minimum) and refill with aviator's oxygen only. Clean masks and regulators with suitable cleaning wipes.  Ensure that the 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 the manufacturer's and the NAA's (if required) data plates.
Speed/weight/ manoeuvre placard	Check that the placard is correct and legible and accurately reflects the status of the aircraft.

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART C — CONTINUING AIRWORTHINESS**

<b>LANDING GEAR</b>	
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.
<b>WING AND CENTRE SECTION</b>	
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 wing struts for damage and internal corrosion. Re-inhibit wing struts internally every three years or in accordance with the 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.

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART C — CONTINUING AIRWORTHINESS**

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.
<b>EMPENNAGE</b>	
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.
<b>AVIONICS AND ELECTRICS</b>	
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 the battery has the main fuse fitted correctly. 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 the call sign placard is installed. Carry out ground function test. Record radio type fitted.
Altimeter datum	Check barometric sub-scale. Maximum error 2 Mb.
Pitot-static system	Perform operational check.

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART C — CONTINUING AIRWORTHINESS**

Transponder	Perform operational check.
<b>MISCELLANEOUS</b>	
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.
<b>POWERPLANT (when applicable)</b>	
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 the 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.

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART C — CONTINUING AIRWORTHINESS**

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.
Flexible vibration dampers	Check for poor condition and deterioration.
Engine battery	If separate from airframe battery, inspect battery and mountings. If the main fuse is fitted, check rating and condition. Perform a functional test.
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 ELA1 hot-air balloons not involved in commercial operations**

To be performed every annual interval.

A tolerance of one month may be applied. However, the next interval shall be calculated from the date originally scheduled (without the tolerance).

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

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART C — CONTINUING AIRWORTHINESS**

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 and verify type/serial number installed.
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	<p>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.</p> <p>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.</p> <p>Perform grab test in accordance with the manufacturer's instructions.</p>
Flying cables	<p>Inspect for damage (particularly heat damage).</p> <p>Kevlar cable — yellow core is not visible</p>
Karabiners	Inspect for damage. Karabiner lock is working properly.
Melting link and Tempilabel	Check maximum temperature indication (flag/'tell-tale').
Control system lines	<p>Inspect for damage wear, security of knots.</p> <p>Check proper length. Check lines attachments for damage, wear, security.</p>
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 lifetime 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**

<b>System/component/area</b>	<b>Task &amp; Inspection detail</b>
Identification (type/serial number)	Check for presence and verify type/serial number installed.
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.
Vapour 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**

<b>System/component/area</b>	<b>Task &amp; Inspection detail</b>
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.

**AMC M.A.304 Data for modifications and repairs**

A person or organisation repairing an aircraft or component should assess the damage against published approved repair data and the action to be taken if the damage is beyond the limits or outside the scope of such data. This could involve any one or more of the following options; repair by replacement of damaged parts, requesting technical support from the type certificate holder or from an organisation approved in accordance with Part-21 and finally Agency approval of the particular repair data

**AMC M.A.305(d) Aircraft continuing airworthiness record system**

The current status of AD should identify the applicable AD including revision or amendment numbers. Where an AD is generally applicable to the aircraft or component type but is not applicable to the particular aircraft or component, then this should be identified. The AD status includes the date when the AD was accomplished, and where the AD is controlled by flight hours or flight cycles it should include the aircraft or engine or component total flight hours or cycles, as appropriate. For repetitive ADs, only the last application should be recorded in the AD status. The status should also specify which part of a multi-part directive has been accomplished and the method, where a choice is available in the AD.

The status of current modification and repairs means a list of embodied modification and repairs together with the substantiating data supporting compliance with the airworthiness requirements. This can be in the form of a Supplemental Type Certificate (STC), SB, Structural Repair Manual (SRM) or similar approved document.

The substantiating data may include:

- (a) compliance programme; and
- (b) master drawing or drawing list, production drawings, and installation instructions; and
- (c) engineering reports (static strength, fatigue, damage tolerance, fault analysis, etc.); and
- (d) ground and flight test programme and results; and
- (e) mass and balance change data; and
- (f) maintenance and repair manual supplements; and
- (g) maintenance programme changes and instructions for continuing airworthiness; and
- (h) aircraft flight manual supplement.

Some gas turbine engines are assembled from modules and a true total time in service for a total engine is not kept. When owners and operators wish to take advantage of the modular design, then total time in service and maintenance records for each module is to be maintained. The continuing airworthiness records as specified are to be kept with the module and should show compliance with any mandatory requirements pertaining to that module

**AMC M.A.305(d)(4) and M.A.305(h) Aircraft continuing airworthiness record system**

The term ‘service life-limited components’ embraces: (i) components subject to a certified life limit after which the components should be retired, and (ii) components subject to a service life limit after which the components should undergo maintenance to restore their serviceability.

The current status of service life-limited aircraft components should indicate:

- (i) for components subject to a certified life limit: the component life limitation, total number of hours, accumulated cycles or calendar time and the number of hours/cycles/time remaining before the required retirement time of the component is reached;
- (ii) for components subject to a service life limit: the component service life limit, the hours, cycles or calendar time since the component has been restored back to their service life and the remaining service (hours, cycles, calendar time) life before the components need to undergo maintenance.

Any action that alters the components’ life limit (certified or service) or changes the parameter of the life limit (certified or service) should be recorded.

When the determination of the remaining life requires knowledge of the different types of aircraft/engine on which the component has previously been installed, the status of all service-life limited aircraft components should additionally include a full installation history indicating the number of hours, cycles or calendar time relevant to each installation on these different types of aircraft/engine. The indication of the type of aircraft/engine should be sufficiently detailed with regard to the required determination of remaining life.

Recommendations from the type certificate holder on the procedures to record the remaining life may be considered.

**AMC M.A.305(h) Aircraft continuing airworthiness record system**

When an owner/operator arranges for the relevant maintenance organisation to retain copies of the continuing airworthiness records on their behalf, the owner/operator will continue to be responsible for the retention of records. If they cease to be the owner/operator of the aircraft, they also remain responsible for transferring the records to any other person who becomes the owner/operator of the aircraft.

Keeping continuing airworthiness records in a form acceptable to the competent authority normally means in paper form or on a computer database or a combination of both methods. Records stored in microfilm or optical disc form are also acceptable. All records should remain legible throughout the required retention period.

Paper systems should use robust material, which can withstand normal handling and filing.

Computer systems should have at least one backup system, which should be updated at least within 24 hours of any maintenance. Each terminal is required to contain programme safeguards against the ability of unauthorised personnel to alter the database.

Continuing airworthiness records should be stored in a safe way with regard to damage, alteration and theft. Computer backup discs, tapes etc., should be stored in a different location from that containing the current working discs, tapes, etc., and in a safe environment. Reconstruction of lost or destroyed records

can be done by reference to other records which reflect the time in service, research of records maintained by repair facilities and reference to records maintained by individual mechanics, etc. When these things have been done and the record is still incomplete, the owner/operator may make a statement in the new record describing the loss and establishing the time in service based on the research and the best estimate of time in service. The reconstructed records should be submitted to the competent authority for acceptance. The competent authority may require the performance of additional maintenance if not satisfied with the reconstructed records.

**GM M.A.302(h) Aircraft maintenance programme**

Responsibilities associated to maintenance programmes developed in accordance with M.A.302(h):

- If the owner has contracted an organisation in accordance with M.A.201(e) (whether it covers the full continuing airworthiness management or it is just for the development of the maintenance programme), 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 M.A.302(i);
  - 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 recommendations issued by the Design Approval Holder;
  - justifies any deviations from the recommendations issued by the Design Approval Holder;
  - does not go below the requirements of the Minimum Inspection Programme; and
  - is customised to the particular aircraft type, configuration and operation, in accordance with paragraph M.A.302(h)3.

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 recommendations issued by the Design Approval Holder.

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 M.A.201(e) 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 introduced to the recommendations issued by the Design Approval Holder. In this case, these deviations do not need to be justified. However, the maintenance programme still needs to comply with the requirements contained in M.A.302(h), 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 Design Approval Holder recommendations.

- The content of the declared (by the owner) maintenance programme cannot be initially challenged 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 Aircraft Continuing Airworthiness Monitoring (ACAM) inspections in accordance with M.B.303. Nevertheless, the maintenance programme will be subject to periodic reviews at the occasion of the airworthiness review and the competent authority shall be notified in case of discrepancies linked to deficiencies in the content of the maintenance programme, as described in M.A.302(h)5, M.A.710(ga), M.A.710(h), M.A.901(l)5, and M.A.901(l)7. The owner shall amend the maintenance programme accordingly as required by M.A.302(h)5.

- When the competent authority is notified of deficiencies linked to the content of the declared maintenance programme for a particular aircraft, 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 the ACAM programme accordingly. This notification will also allow that the competent authority agrees on the changes required to the maintenance programme as required by M.A.302(h)5.
- 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 introduced to the recommendations issued by the Design Approval Holder, 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 case, the owner can always declare an amended maintenance programme.

#### **AMC M.A.305(h)6 Aircraft continuing airworthiness record system**

For the purpose of this paragraph, a ‘component vital to flight safety’ means a component that includes certified life limited parts or is subject to airworthiness limitations or a major component such as, undercarriage or flight controls.

#### **AMC M.A.306(a) Operators technical log system**

For commercial air transport the operator’s aircraft technical log is a system for recording defects and malfunctions during the aircraft operation and for recording details of all maintenance carried out on an aircraft between scheduled base maintenance visits. In addition, it is used for recording flight safety and maintenance information the operating crew need to know.

Cabin or galley defects and malfunctions that affect the safe operation of the aircraft or the safety of its occupants are regarded as forming part of the aircraft log book where recorded by another means.

The operator’s aircraft technical log system may range from a simple single section document to a complex system containing many sections but in all cases it should include the information specified for the example used here which happens to use a 5 section document / computer system:

**Section 1** should contain details of the registered name and address of the operator the aircraft type and the complete international registration marks of the aircraft.

**Section 2** should contain details of when the next scheduled maintenance is due, including, if relevant any out of phase component changes due before the next maintenance check. In addition this section should contain the current certificate of release to service (CRS), for the complete aircraft, issued normally at the end of the last maintenance check.



NOTE: The flight crew do not need to receive such details if the next scheduled maintenance is controlled by other means acceptable to the competent authority.

**Section 3** should contain details of all information considered necessary to ensure continued flight safety. Such information includes:

- (i) the aircraft type and registration mark,
- (ii) the date and place of take-off and landing,
- (iii) the times at which the aircraft took off and landed,
- (iv) the running total of flying hours, such that the hours to the next schedule maintenance can be determined. The flight crew does not need to receive such details if the next scheduled maintenance is controlled by other means acceptable to the competent authority.
- (v) details of any failure, defect or malfunction to the aircraft affecting airworthiness or safe operation of the aircraft including emergency systems, and any failure, defect or malfunctions in the cabin or galleys that affect the safe operation of the aircraft or the safety of its occupants that are known to the commander. Provision should be made for the commander to date and sign such entries including, where appropriate, the nil defect state for continuity of the record. Provision should be made for a CRS following rectification of a defect or any deferred defect or maintenance check carried out. Such a certificate appearing on each page of this section should readily identify the defect(s) to which it relates or the particular maintenance check as appropriate.

It is acceptable to use an alternate abbreviated certificate of release to service consisting of the statement 'Part-145 release to service' instead of the full certification statement specified in AMC 145.A.50(b) paragraph 1. When the alternate abbreviated certificate of release to service is used, the introductory section of the technical log should include an example of the full certification statement from AMC 145.A.50(b) paragraph 1.

- (vi) the quantity of fuel and oil uplifted and the quantity of fuel available in each tank, or combination of tanks, at the beginning and end of each flight; provision to show, in the same units of quantity, both the amount of fuel planned to be uplifted and the amount of fuel actually uplifted; provision for the time when ground de-icing and/or anti-icing was started and the type of fluid applied, including mixture ratio fluid/water and any other information required by the operator's procedures in order to allow the assessment on whether inspections for and/or elimination of de-icing/anti-icing fluid residues that could endanger flight safety are required.
- (vii) the pre-flight inspection signature.

In addition to the above, it may be necessary to record the following supplementary information:

- the time spent in particular engine power ranges where use of such engine power affects the life of the engine or engine module;
- the number of landings where landings affect the life of an aircraft or aircraft component;
- flight cycles or flight pressure cycles where such cycles affect the life of an aircraft or aircraft component.

NOTE 1: Where Section 3 is of the multi-sector 'part removable' type, then such 'part removable' sections should contain all of the foregoing information where appropriate.

NOTE 2: Section 3 should be designed so that one copy of each page may remain on the aircraft and one copy may be retained on the ground until completion of the flight to which it relates.

NOTE 3: Section 3 layout should be divided to show clearly what is required to be completed after flight and what is required to be completed in preparation for the next flight.

**Section 4** should contain details of all deferred defects that affect or may affect the safe operation of the aircraft and should therefore be known to the aircraft commander. Each page of this section should be pre-printed with the operator's name and page serial number and make provision for recording the following:

- (i) a cross reference for each deferred defect such that the original defect can be identified in the particular section 3 sector record page.
- (ii) the original date of occurrence of the defect deferred.
- (iii) brief details of the defect.
- (iv) details of the eventual rectification carried out and its CRS or a clear cross-reference back to the document that contains details of the eventual rectification.

**Section 5** should contain any necessary maintenance support information that the aircraft commander needs to know. Such information would include data on how to contact maintenance if problems arise whilst operating the routes etc.

**AMC M.A.306(b) Operators technical log system**

The aircraft technical log system can be either a paper or computer system or any combination of both methods acceptable to the competent authority.

In case of a computer system, it should contain programme safeguards against the ability of unauthorised personnel to alter the database.

**AMC M.A.307(a) Transfer of aircraft continuing airworthiness records**

Where an owner/operator terminates his operation, all retained continuing airworthiness records should be passed on to the new owner/operator or stored.

A 'permanent transfer' does not generally include the dry lease-out of an aircraft when the duration of the lease agreement is less than 6 months. However the competent authority should be satisfied that all continuing airworthiness records necessary for the duration of the lease agreement are transferred to the lessee or made accessible to them.

**SUBPART D — MAINTENANCE STANDARDS**

**AMC M.A.401(b) Maintenance data**

1. Except as specified in sub-paragraph 2, each person or organisation performing aircraft maintenance should have access to and use:
  - (a) all maintenance related Parts and associated AMC's, together with the maintenance related guidance material;
  - (b) all applicable maintenance requirements and notices such as competent authority standards and specifications that have not been superseded by a requirement, procedure or directive;
  - (c) all applicable ADs;
  - (d) the appropriate sections of the aircraft maintenance programme, aircraft maintenance manual, repair manual, supplementary structural inspection document, corrosion control document, service bulletins, service sheets modification leaflets, non-destructive inspection manual, parts catalogue, type certificate data sheets as required for the work undertaken and any other specific document issued by the type certificate or supplementary type certificate holder's maintenance data, except that in the case of operator or customer provided maintenance data it is not necessary to hold such provided data when the work order is completed.
2. In addition to sub-paragraph 1, for components each organisation performing aircraft maintenance should hold and use the appropriate sections of the vendor maintenance and repair manual, service bulletins and service letters plus any document issued by the type certificate holder as maintenance data on whose product the component may be fitted when applicable, except that in the case of operator or customer provided maintenance data it is not necessary to hold such provided data when the work order is completed.

**AMC M.A.401(c) Maintenance data**

1. Data being made available to personnel maintaining aircraft means that the data should be available in close proximity to the aircraft or component being maintained, for mechanics and certifying staff to perform maintenance.
2. Where computer systems are used, the number of computer terminals should be sufficient in relation to the size of the work programme to enable easy access, unless the computer system can produce paper copies. Where microfilm or microfiche readers/printers are used, a similar requirement is applicable.
3. Maintenance tasks should be transcribed onto the work cards or worksheets and subdivided into clear stages to ensure a record of the accomplishment of the maintenance task. Of particular importance is the need to differentiate and specify, when relevant, disassembly, accomplishment of task, reassembly and testing. In the case of a lengthy maintenance task involving a succession of personnel to complete such task, it may be necessary to use supplementary work cards or worksheets to indicate what was actually accomplished by each individual person. A worksheet or work card system should refer to particular maintenance tasks.
4. The workcard/worksheet system may take the form of, but is not limited to, the following:
  - a format where the mechanic writes the defect and the maintenance action taken together with information of the maintenance data used, including its revision status,

- an aircraft log book that contains the reports of defects and the actions taken by authorised personnel together with information of the maintenance data used, including its revision status,
  - for maintenance checks, the checklist issued by the manufacturer (i.e., 100H checklist, Revision 5, Items 1 through 95)
5. Maintenance data should be kept up to date by:
- subscribing to the applicable amendment scheme,
  - checking that all amendments are being received,
  - monitoring the amendment status of all data.

**AMC M.A.402(a) Performance of maintenance**

1. When working outside the scope of an approved maintenance organisation personnel not authorised to issue a CRS should work under the supervision of certifying personnel. They may only perform maintenance that their supervisor is authorised to release, if the supervisor personally observes the work being carried out to the extent necessary to ensure that it is being done properly and if the supervisor is readily available, in person, for consultation. In this case licensed engineers should ensure that each person maintaining an aircraft or component has had appropriate training or relevant previous experience and is capable of performing the task required, and that personnel who carry out specialised tasks such as welding are qualified in accordance with an officially recognised standard.
2. In the case of limited Pilot-Owner maintenance as specified in M.A.803, any person maintaining an aircraft which they own or jointly own, provided they hold a valid pilot licence with the appropriate type or class rating, may perform the limited Pilot-owner maintenance tasks in accordance with Appendix VIII of Annex I (Part-M) of Commission Regulation (EU) No 1321/2014.
3. The general maintenance and inspection standards applied to individual maintenance tasks should meet the recommended standards and practices of the organisation responsible for the type design which are normally published in the maintenance manuals.

In the absence of maintenance and inspection standards published by the organisation responsible for the type design maintenance personnel should refer to the relevant aircraft airworthiness standards and procedures published or used as guidance by the Agency or the competent authority. The maintenance standards used should contain methods, techniques and practices acceptable to the Agency or competent authority for the maintenance of aircraft and its components.

4. Independent inspections.
  - 4.1. The manufacturer's instructions for continued airworthiness should be followed when determining the need for an independent inspection.
  - 4.2. In the absence of maintenance and inspection standards published by organisation responsible for the type design, maintenance tasks that involve the assembly or any disturbance of a control system that, if errors occurred, could result in a failure, malfunction, or defect endangering the safe operation of the aircraft should be considered as flight safety sensitive maintenance tasks needing an independent inspection. A control system is an aircraft system by which the flight path, attitude, or propulsive force of the aircraft is changed, including the flight, engine and propeller controls, the related system controls and the associated operating mechanisms.
  - 4.3. Independent inspections should be carried out by at least two persons, to ensure correct assembly, locking and sense of operation. A technical record of the inspections should contain the signatures of both persons before the relevant CRS is issued.

- 4.3.1. An independent inspection is an inspection first made by an authorised person signing the maintenance release who assumes full responsibility for the satisfactory completion of the work, before being subsequently inspected by a second independent competent person who attests to the satisfactory completion of the work recorded and that no deficiencies have been found.
- 4.3.2. The second independent competent person is not issuing a maintenance release therefore is not required to hold certification privileges. However they should be suitably qualified to carry out the inspection.
- 4.4. When work is being done under the control of an approved maintenance organisation the organisation should have procedures to demonstrate that the signatories have been trained and have gained experience on the specific control systems being inspected.
- 4.5. When work is being undertaken by an independent M.A.801(b)2 certifying staff, the qualifications and experience of the second independent competent person should be directly assessed by the person certifying for the maintenance, taking into account the individual's training and experience. It should not be acceptable for the certifying staff signing the release to show the person performing the independent inspection how to perform the inspection at the time the work is completed.
- 4.6. In summary the following maintenance tasks should primarily be considered when inspecting aircraft control systems that have been disturbed:
- installation, rigging and adjustment of flight controls.
  - installation of aircraft engines, propellers and rotors.
  - overhaul, calibration or rigging of components such as engines, propellers, transmissions and gearboxes.
- Consideration should also be given to:
- previous experience of maintenance errors, depending on the consequences of the failure.
  - information arising from an 'occurrence reporting system'
- 4.7. When checking control systems that have undergone maintenance, the person signing the maintenance release and the person performing the independent check should consider the following points independently:
- all those parts of the system that have actually been disconnected or disturbed should be inspected for correct assembly and locking.
  - the system as a whole should be inspected for full and free movement over the complete range.
  - cables should be tensioned correctly with adequate clearance at secondary stops.
  - the operation of the control system as a whole should be observed to ensure that the controls are operating in the correct sense.
  - if the control system is duplicated to provide redundancy, each system should be checked separately.
  - if different control systems are interconnected so that they affect each other, all interactions should be checked through the full range of the applicable controls.

**AMC M.A.402(b) Performance of maintenance**

When performing maintenance, personnel are required to use the tools, equipment and test apparatus necessary to ensure completion of work in accordance with accepted maintenance and inspection standards. Inspection, service or calibration on a regular basis should be in accordance with the

equipment manufacturers' instructions. All tools requiring calibration should be traceable to an acceptable standard.

In this context officially recognised standard means those standards established or published by an official body whether having legal personality or not, which are widely recognised by the air transport sector as constituting good practice.

If the organisation responsible for the type design involved recommends special equipment or test apparatus, personnel should use the recommended equipment or apparatus or equivalent equipment accepted by the competent authority.

All work should be performed using materials of such quality and in a manner, that the condition of the aircraft or its components after maintenance will be at least equal to its original or modified condition (with regard to aerodynamic function, structural strength, resistance to vibration, deterioration and any other qualities affecting airworthiness).

**AMC M.A.402(d) Performance of maintenance**

The working environment should be appropriate for the maintenance task being performed such that the effectiveness of personnel is not impaired.

- (a) Temperature should be maintained such that personnel can perform the required tasks without undue discomfort.
- (b) Airborne contamination (e.g. dust, precipitation, paint particles, filings) should be kept to a minimum to ensure aircraft/components surfaces are not contaminated, if this is not possible all susceptible systems should be sealed until acceptable conditions are re-established.
- (c) Lighting should be adequate to ensure each inspection and maintenance task can be performed effectively.
- (d) Noise levels should not be allowed to rise to the level of distraction for inspection staff or if this is not possible inspection staff should be provided with personnel equipment to reduce excessive noise.

**AMC M.A.402(e) Performance of maintenance**

Facilities should be provided appropriate for all planned maintenance. This may require aircraft hangars that are both available and large enough for the planned maintenance.

Aircraft component workshops should be large enough to accommodate the components that are planned to be maintained.

Protection from inclement weather means the hangar or component workshop structures should be to a standard that prevents the ingress of rain, hail, ice, snow, wind and dust etc.

**AMC M.A.403(b) Aircraft defects**

An assessment of both the cause and any potentially hazardous effect of any defect or combination of defects that could affect flight safety should be made in order to initiate any necessary further investigation and analysis necessary to identify the root cause of the defect.

**AMC M.A.403(d) Aircraft defects**

All deferred defects should be made known to the pilot/flight crew, whenever possible, prior to their arrival at the aircraft.

***AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014***

***SUBPART D — MAINTENANCE STANDARDS***

Deferred defects should be transferred on to worksheets at the next appropriate maintenance check, and any deferred defect which is not rectified during the maintenance check, should be re-entered on to a new deferred defect record sheet. The original date of the defect should be retained.

The necessary components or parts needed for the rectification of defects should be made available or ordered on a priority basis, and fitted at the earliest opportunity.

**SUBPART E — COMPONENTS**

**AMC M.A.501(a) Installation**

1. To ensure a component is in a satisfactory condition, the person referred to under M.A.801 or the approved maintenance organisation should perform checks and verifications.
2. Performance of above checks and verifications should take place before the component is installed on the aircraft.
3. The following list, though not exhaustive, contains typical checks to be performed:
  - (a) verify the general condition of components and their packaging in relation to damages that could affect the integrity of the components;
  - (b) verify that the shelf life of the component has not expired;
  - (c) verify that items are received in the appropriate package in respect of the type of component: e.g. correct ATA 300 or electrostatic sensitive devices packaging, when necessary;
  - (d) verify that component has all plugs and caps appropriately installed to prevent damage or internal contamination. Tape should not be used to cover electrical connections or fluid fittings/openings because adhesive residues can insulate electrical connections and contaminate hydraulic or fuel units.
4. The purpose of the EASA Form 1 (see also Part-M Appendix II) is to release components after manufacture and to release maintenance work carried out on such components under the approval of a competent authority and to allow components removed from one aircraft/component to be fitted to another aircraft/ component.
5. For the purpose of Part-M, a document equivalent to an EASA Form 1 may be:
  - (a) a release document issued by an organisation under the terms of a bilateral agreement signed by the European Union;
  - (b) a release document issued by an organisation approved under the terms of a JAA maintenance bilateral agreement until superseded by the corresponding agreement signed by the European Union;
  - (c) a JAA Form One issued prior to 28 November 2004 by a JAR 145 organisation approved by a JAA Full Member State;
  - (d) in the case of new aircraft components that were released from manufacturing prior to the Part-21 compliance date, the component should be accompanied by a JAA Form One issued by a JAR 21 organisation approved by a JAA Full Member Authority and within the JAA mutual recognition system;
  - (e) a JAA Form One issued prior to 28 September 2005 by a production organisation approved by a competent authority in accordance with its national regulations;
  - (f) a JAA Form One issued prior to 28 September 2008 by a maintenance organisation approved by a competent authority in accordance with its national regulations;
  - (g) a release document acceptable to a competent authority according to the provisions of a bilateral agreement between the competent authority and a third country until superseded by the corresponding agreement signed by the European Union. This provision is valid provided the above agreements between the competent authority and a third



country are notified to the Commission and to the other competent authorities in accordance with Article 12 of Regulation (EC) No 216/2008.

- (h) a release document issued under the conditions described in Article 4, point 4 of Commission Regulation (EU) No 1321/2014;
  - (i) documents referred in paragraphs (f) and (g) are not acceptable in the Part-145 maintenance environment.
6. Any item in storage without an EASA Form 1 or equivalent cannot be installed on aircraft registered in a Member State unless an EASA Form 1 is issued for such item by an appropriately approved maintenance organisation in accordance with AMC M.A.613(a).

**AMC M.A.501(b) Installation**

1. The EASA Form 1 identifies the airworthiness status of an aircraft component. Block 12 'Remarks' on the EASA Form 1 in some cases contains vital airworthiness related information (see also Part-M Appendix II) which may need appropriate and necessary actions.
2. The fitment of replacement components should only take place when the person referred to in M.A.801 or the M.A. Subpart F or Part-145 maintenance organisation is satisfied that such components meet required standards in respect of manufacture or maintenance, as appropriate.
3. The person referred to under M.A.801 or the M.A. Subpart F or Part-145 approved maintenance organisation should be satisfied that the component in question meets the approved data/standard, such as the required design and modification standards. This may be accomplished by reference to the (S)TC holder or manufacturer's parts catalogue or other approved data (i.e. Service Bulletin). Care should also be taken in ensuring compliance with applicable AD and the status of any service life-limited parts fitted to the aircraft component.

**AMC M.A.501(c) Installation**

1. Standard parts are:
  - (a) parts manufactured in complete compliance with an established industry, Agency, competent authority or other Government specification which includes design, manufacturing, test and acceptance criteria, and uniform identification requirements. The specification should include all information necessary to produce and verify conformity of the part. It should be published so that any party may manufacture the part. Examples of specifications are National Aerospace Standards (NAS), Army-Navy Aeronautical Standard (AN), Society of Automotive Engineers (SAE), SAE Sematec, Joint Electron Device Engineering Council, Joint Electron Tube Engineering Council, and American National Standards Institute (ANSI), EN Specifications etc...
  - (b) For sailplanes and powered sailplanes, non-required instruments and/or equipment certified under the provision of CS 22.1301(b), if those instruments or equipment, when installed, functioning, functioning improperly or not functioning at all, do not in itself, or by its effect upon the sailplane and its operation, constitute a safety hazard.

'Required' in the term 'non-required' as used above means required by the applicable airworthiness code (CS 22.1303, 22.1305 and 22.1307) or required by the relevant operating regulations and the applicable Rules of the Air or as required by Air Traffic Management (e.g. a transponder in certain controlled airspace). Examples of equipment which can be considered standard parts are electrical variometers, bank/slip indicators ball type, total energy probes, capacity bottles (for variometers), final glide calculators, navigation computers, data logger / barograph / turnpoint camera, bug-wipers and anti-collision systems. Equipment which must be approved in accordance to the airworthiness

code shall comply with the applicable ETSO or equivalent and is not considered a standard part (e.g. oxygen equipment).

2. To designate a part as a standard part the TC holder may issue a standard parts manual accepted by the competent authority of original TC holder or may make reference in the parts catalogue to a national/international specification (such as a standard diode/capacitor etc.) not being an aviation only specification for the particular part.
3. Documentation accompanying standard parts should clearly relate to the particular parts and contain a conformity statement plus both the manufacturing and supplier source. Some material is subject to special conditions such as storage condition or life limitation etc. and this should be included on the documentation and / or material packaging.
4. An EASA Form 1 or equivalent is not normally issued and therefore none should be expected.

**AMC M.A.501(d) Installation**

1. Consumable material is any material which is only used once, such as lubricants, cements, compounds, paints, chemicals dyes and sealants etc.
2. Raw material is any material that requires further work to make it into a component part of the aircraft such as metals, plastics, wood, fabric etc.
3. Material both raw and consumable should only be accepted when satisfied that it is to the required specification. To be satisfied, the material and or its packaging should be marked with the specification and where appropriate the batch number.
4. Documentation accompanying all material should clearly relate to the particular material and contain a conformity statement plus both the manufacturing and supplier source. Some material is subject to special conditions such as storage condition or life limitation etc. and this should be included on the documentation and/or material packaging.
5. EASA Form 1 or equivalent should not be issued for such material and therefore none should be expected. The material specification is normally identified in the (S)TC holder's data except in the case where the Agency or the competent authority has agreed otherwise.
6. Items purchased in batches (fasteners etc.) should be supplied in a package. The packaging should state the applicable specification/standard, P/N, batch number and the quantity of the items. The documentation accompanying the material should contain the applicable specification/standard, P/N, batch number, supplied quantity, and the manufacturing sources. If the material is acquired from different batches, acceptance documentation for each batch should be supplied.

**AMC M.A.502 Component maintenance**

Component removal from and installation on an aircraft is considered to be aircraft maintenance and not component maintenance. As a consequence, M.A.502 requirements do not apply to this case

**AMC M.A.502(b) and (c) Component maintenance**

M.A.502(b) and (c) allow the performance of certain component maintenance, in accordance with component maintenance data, to maintenance organisations not holding the corresponding B/C rating and to independent certifying staff, subject to the agreement of:

- The authority responsible for the oversight of the maintenance organisation (refer to M.1, paragraph 2 for M.A. Subpart F maintenance organisations, or to 145.1 for Part-145 maintenance organisations), or,

- The authority of the Member State of registry in the case of maintenance performed by independent certifying staff.

This should only be permitted by the competent authority in the case of simple component maintenance, where the competent authority is satisfied that the certifying staff are appropriately qualified and the proper tooling and facilities are available. It is important to note that for more complex component maintenance, special qualifications may be required and it is not enough with holding a Part-66 aircraft maintenance licence

**AMC M.A.504(a) Control of unserviceable components**

A component continues to be unserviceable until a decision is taken pursuant to AMC M.A.605(c)6.

**AMC M.A.504(b) Control of unserviceable components**

1. M.A.801(b)(2) and M.A.801(c) certifying staff or the Section A Subpart F/Part 145 approved maintenance organisation performing maintenance should ensure proper identification of any unserviceable components.
2. The unserviceable status of the component should be clearly declared on a tag together with the component identification data and any information useful to define actions necessary to be taken. Such information should state, as applicable, in service times, maintenance status, preservation status, failures, defects or malfunctions reported or detected exposure to adverse environmental conditions, if the component has been involved in or affected by an accident/incident. Means should be provided to prevent unwanted separation of this tag from the component.
3. M.A.801(b)(2) and M.A.801(c) certifying staff performing aircraft maintenance should send, with the agreement of the aircraft owner/lessee, any unserviceable component to a maintenance organisation approved under Section A Subpart F or Part-145 for controlled storage, or transfer the custody of the component to the owner itself under the conditions specified in M.A.504(b).

‘A secure location under the control of an approved maintenance organisation’ means a secure location for which security is the responsibility of the approved maintenance organisation. This may include facilities established by the approved maintenance organisation at locations different from the main maintenance facilities. These locations should be identified in the relevant procedures of the approved maintenance organisation.

**AMC M.A.504(c) Control of unserviceable components – unsalvageable components**

1. The following types of components should typically be classified as unsalvageable:
  - (a) components with non-repairable defects, whether visible or not to the naked eye;
  - (b) components that do not meet design specifications, and cannot be brought into conformity with such specifications;
  - (c) components subjected to unacceptable modification or rework that is irreversible;
  - (d) certified life-limited parts that have reached or exceeded their certified life limits, or have missing or incomplete records;
  - (e) components that cannot be returned to airworthy condition due to exposure to extreme forces, heat or adverse environment;
  - (f) components for which conformity with an applicable airworthiness directive cannot be accomplished;

- (g) components for which continuing airworthiness records and/or traceability to the manufacturer cannot be retrieved.
2. It is common practice for possessors of aircraft components to dispose of unsalvageable components by selling, discarding, or transferring such items. In some instances, these items have reappeared for sale and in the active parts inventories of the aviation community. Misrepresentation of the status of components and the practice of making such items appear serviceable has resulted in the use of unsalvageable nonconforming components. Therefore organisations disposing of unsalvageable aircraft components should consider the possibility of such components later being misrepresented and sold as serviceable components. Caution should be exercised to ensure that unsalvageable components are disposed of in a manner that does not allow them to be returned to service.

**AMC M.A.504(d)2 Control of unserviceable components**

1. Mutilation should be accomplished in such a manner that the components become permanently unusable for their original intended use. Mutilated components should not be able to be reworked or camouflaged to provide the appearance of being serviceable, such as by re-plating, shortening and re-threading long bolts, welding, straightening, machining, cleaning, polishing, or repainting.
2. Mutilation may be accomplished by one or a combination of the following procedures:
  - (a) grinding,
  - (b) burning,
  - (c) removal of a major lug or other integral feature,
  - (d) permanent distortion of parts,
  - (e) cutting a hole with cutting torch or saw,
  - (f) melting,
  - (g) sawing into many small pieces,
  - (h) any other method accepted by the competent authority or the Agency on a case by case basis.
3. The following procedures are examples of mutilation that are often less successful because they may not be consistently effective:
  - (a) stamping or vibro-etching,
  - (b) spraying with paint,
  - (c) small distortions, incisions or hammer marks,
  - (d) identification by tag or markings,
  - (e) drilling small holes,
  - (f) sawing in two pieces only.
4. Since manufacturers producing approved aircraft components should maintain records of serial numbers for 'retired' certified life-limited or other critical components, the organisation that mutilates a component should provide the original manufacturer with the data plate and/or serial number and final disposition of the component.

**AMC M.A.504(e) Control of unserviceable components**

A maintenance organisation may choose, in agreement with the component's owner, to release an unsalvageable component for legitimate non-flight uses, such as for training and education, research and development. In such instances, mutilation may not be appropriate. The following methods should be used to prevent the component re-entering the aviation supply system:

- (a) permanently marking or stamping the component, as 'NOT SERVICEABLE'. (Ink stamping is not an acceptable method);
- (b) removing original part number identification;
- (c) removing data plate identification;
- (d) maintaining a tracking or accountability system, by serial number or other individualised data, to record transferred unsalvageable aircraft component;
- (e) including written procedures concerning disposal of such components in any agreement or contract transferring such components.

NOTE: Unsalvageable components should not be released to any person or organisation that is known to return unsalvageable components back into the aviation supply system, due to the potential safety threat.

**SUBPART F — MAINTENANCE ORGANISATION**

**AMC M.A.602 Application**

An application should be made on an EASA Form 2 (Appendix IX to AMC M.A.602 and AMC M.A.702) or equivalent acceptable to the competent authority.

The EASA Form 2 is valid for the application for M.A. Subpart F, Part-145 and M.A. Subpart G organisations. Organisations applying for several approvals may do so by using a single EASA Form 2.

**AMC M.A.603(a) Extent of Approval**

The following table identifies the ATA Specification 2200 chapter for the category C component rating. If the maintenance manual (or equivalent document) does not follow the ATA Chapters, the corresponding subjects still apply to the applicable C rating.

CLASS	RATING	ATA CHAPTERS
COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs	C1 Air Cond & Press	21
	C2 Auto Flight	22
	C3 Comms and Nav	23 - 34
	C4 Doors - Hatches	52
	C5 Electrical Power & Lights	24 – 33 – 85
	C6 Equipment	25 - 38 - 44 - 45 - 50
	C7 Engine – APU	49 - 71 - 72 - 73 - 74 - 75 - 76 - 77 - 78 - 79 - 80 - 81 - 82 - 83
	C8 Flight Controls	27 - 55 - 57.40 - 57.50 - 57.60 - 57.70
	C9 Fuel	28 - 47
	C10 Helicopters - Rotors	62 - 64 - 66 - 67
	C11 Helicopter - Trans	63 - 65
	C12 Hydraulic Power	29
	C13 Indicating/Recording Systems	31 - 42 - 46
	C14 Landing Gear	32
	C15 Oxygen	35
	C16 Propellers	61
	C17 Pneumatic & Vacuum	36 - 37
	C18 Protection ice/rain/fire	26 - 30
	C19 Windows	56

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART F — MAINTENANCE ORGANISATION**

	C20 Structural	53 - 54 - 57.10 - 57.20 - 57.30
	C21 Water Ballast	41
	C22 Propulsion Augmentation	84

**AMC M.A.603(c) Extent of approval**

1. The agreement by the competent authority for the fabrication of parts by the approved maintenance organisation should be formalised through the approval of a detailed procedure in the maintenance organisation manual. This AMC contains principles and conditions to be taken into account for the preparation of an acceptable procedure.
2. Fabrication, inspection, assembly and test should be clearly within the technical and procedural capability of the approved maintenance organisation.
3. The approved data necessary to fabricate the part are those approved either by the Agency, the TC holder, Part-21 design organisation approval holder, or STC holder.
4. Items fabricated by an approved maintenance organisation may only be used by that organisation in the course of overhaul, maintenance, modifications, or repair of aircraft or components undergoing work within its own facility. The permission to fabricate does not constitute approval for manufacture, or to supply externally and the parts do not qualify for certification on EASA Form 1. This also applies to the bulk transfer or surplus inventory, in that locally fabricated parts are physically segregated and excluded from any delivery certification.
5. Fabrication of parts, modification kits etc. for onward supply and/or sale may not be conducted under a M.A. Subpart F approval.
6. The data specified in paragraph 3 may include repair procedures involving the fabrication of parts. Where the data on such parts is sufficient to facilitate fabrication, the parts may be fabricated by an approved maintenance organisation. Care should be taken to ensure that the data include details of part numbering, dimensions, materials, processes, and any special manufacturing techniques, special raw material specification or/and incoming inspection requirement and that the approved organisation has the necessary capability. That capability should be defined by way of maintenance organisation manual content. Where special processes or inspection procedures are defined in the approved data which are not available at the approved maintenance organisation, that organisation cannot fabricate the part unless the TC/STC holder gives an approved alternative.
7. Examples of fabrication under the scope of an M.A. Subpart F approval can include but are not limited to the following:
  - (a) fabrication of bushes, sleeves and shims,
  - (b) fabrication of secondary structural elements and skin panels,
  - (c) fabrication of control cables,
  - (d) fabrication of flexible and rigid pipes,
  - (e) fabrication of electrical cable looms and assemblies,
  - (f) formed or machined sheet metal panels for repairs.

Note: It is not acceptable to fabricate any item to pattern unless an engineering drawing of the item is produced which includes any necessary fabrication processes and which is accepted to the competent authority.

8. Where a TC holder or an approved production organisation is prepared to make available complete data which is not referred to in aircraft manuals or service bulletins but provides

manufacturing drawings for items specified in parts lists, the fabrication of these items is not considered to be within the scope of an M.A. Subpart F approval unless agreed otherwise by the competent authority in accordance with a procedure specified in the maintenance organisation manual.

9. Inspection and Identification.

Any locally fabricated part should be subject to an inspection stage before, separately, and preferably independently from, any inspection of its installation. The inspection should establish full compliance with the relevant manufacturing data, and the part should be unambiguously identified as fit for use by stating conformity to the approved data. Adequate records should be maintained of all such fabrication processes including heat treatment and the final inspections. All parts, excepting those with inadequate space, should carry a part number which clearly relates it to the manufacturing/inspection data. Additional to the part number the approved maintenance organisation's identity should be marked on the part for traceability purposes.

**AMC M.A.604 Maintenance organisation manual**

1. Appendix IV to this AMC provides an outline of the format of an acceptable maintenance organisation manual for a small organisation with less than 10 maintenance staff.
2. The maintenance organisation exposition as specified in Part-145 provides an outline of the format of an acceptable maintenance organisation manual for larger organisations with more than 10 maintenance staff, dependent upon the complexity of the organisation.

**AMC M.A.605(a) Facilities**

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

For balloons and airships a hangar may not be required where maintenance of the envelope and bottom end equipment can more appropriately be performed outside, providing all necessary maintenance can be accomplished in accordance with M.A.402. For complex repairs or component maintenance requiring an EASA Form 1, suitable approved workshops should be provided. The facilities and environmental conditions required for inspection and maintenance should be defined in the Maintenance Organisation Manual.

Depending on the scope of work of the maintenance organisation, it may not be necessary to have a hangar available. For example, an organisation maintaining ELA2 aircraft (when not performing major repairs) may perform the work in alternative suitable facilities (and possibly at remote locations) as agreed by the competent authority.

2. Protection from the weather elements relates to the normal prevailing local weather elements that are expected throughout any twelve-month period. Aircraft hangar and aircraft component workshop structures should be to a standard that prevents the ingress of rain, hail, ice, snow, wind and dust etc. Aircraft hangar and aircraft component workshop floors should be sealed to minimise dust generation.
3. Aircraft maintenance staff should be provided with an area where they may study maintenance instructions and complete continuing airworthiness records in a proper manner.



**4. Special case for ELA2 aircraft**

For ELA2 aircraft, it is acceptable not to have access to a hangar or dedicated workshops. Depending on the scope of work, other facilities are acceptable as long as protection is ensured from inclement weather and contamination. This may include, for example, working in the field or in non-aviation premises (closed or not).

These facilities do not need to be individually approved by the competent authority as long as the maintenance organisation manual describes for each type of facility the scope of work, the tooling and equipment available, and the permitted environmental conditions (weather, contamination).

The organisation should include, as part of the periodic internal organisational review, a sampling of the compliance with these conditions during certain maintenance events.

**AMC M.A.605(b) Facilities**

It is acceptable to combine any or all of the office accommodation requirements into one office subject to the staff having sufficient room to carry out assigned tasks.

**AMC M.A.605(c) Facilities**

1. Storage facilities for serviceable aircraft components should be clean, well-ventilated and maintained at an even dry temperature to minimise the effects of condensation. Manufacturer's storage recommendations should be followed for those aircraft components identified in such published recommendations.
2. Adequate storage racks should be provided and strong enough to hold aircraft components and provide sufficient support for large aircraft components such that the component is not damaged during storage.
3. All aircraft components, wherever practicable, should remain packaged in their protective material to minimise damage and corrosion during storage. A shelf life control system should be utilised and identity tags used to identify components.
4. Segregation means storing unserviceable components in a separate secured location from serviceable components.
5. Segregation and management of any unserviceable component should be ensured according to the pertinent procedure approved to that organisation.
6. Procedures should be defined by the organisation describing the decision process for the status of unserviceable components. This procedure should identify at least the following:
  - role and responsibilities of the persons managing the decision process;
  - description of the decision process to choose between maintaining, storing or mutilating a component;
  - traceability of decision.
7. Once unserviceable components or materials have been identified as unsalvageable in accordance with M.A.504(c), the organisation should establish secure areas in which to segregate such items and to prevent unauthorised access. Unsalvageable components should be managed through a procedure to ensure that these components receive the appropriate final disposal according to M.A.504(d) or (e). The person responsible for the implementation of this procedure should be identified.

**AMC M.A.606(a) Personnel requirements**

With regard to the accountable manager, it is normally intended to mean the chief executive officer of the maintenance organisation approved under M.A. Subpart F, who by virtue of position has overall (including in particular financial) responsibility for running the organisation. The accountable manager may be the accountable manager for more than one organisation and is not required to be necessarily knowledgeable on technical matters. When the accountable manager is not the chief executive officer, the competent authority will need to be assured that such an accountable manager has direct access to chief executive officer and has a sufficiency of maintenance funding allocation.

**AMC M.A.606(b) Personnel requirements**

1. Dependent upon the size of the organisation, the functions may be subdivided under individual managers or combined in any number of ways.
2. The maintenance organisation should have, dependent upon the extent of approval, an aircraft maintenance manager, a workshop manager all of whom should report to the accountable manager. In small maintenance organisations any manager may also be the accountable manager, and may also be the aircraft maintenance manager or the workshop manager.
3. The aircraft maintenance manager is responsible for ensuring that all maintenance required to be carried out, plus any defect rectification carried out during aircraft maintenance, is carried out to the design and quality standards specified in this Part. The aircraft maintenance manager is also responsible for any corrective action resulting from the M.A.616 organisational review.
4. The workshop manager is responsible for ensuring that all work on aircraft components is carried out to the standards specified in this Part and also responsible for any corrective action resulting from the M.A.616 organisational review.
5. Notwithstanding the example sub-paragraphs 2 - 4 titles, the organisation may adopt any title for the foregoing managerial positions but should identify to the competent authority the titles and persons chosen to carry out these functions.

**AMC M.A.606(c) Personnel requirements**

1. All nominated persons should, in the normal way, be expected to satisfy the competent authority that they possess the appropriate experience and qualifications which are listed in paragraphs 2.1 to 2.5 below.
2. All nominated persons should have:
  - 2.1. practical experience and expertise in the application of aviation safety standards and safe maintenance practices;
  - 2.2. comprehensive knowledge of:
    - (a) Part-M and any associated requirements and procedures;
    - (b) the maintenance organisation manual;
  - 2.3. five years aviation experience of which at least three years should be practical maintenance experience;
  - 2.4. knowledge of the relevant type(s) of aircraft or components maintained. This knowledge may be demonstrated by documented evidence or by an assessment performed by the competent authority. This assessment should be recorded.

Training courses should be as a minimum at a level equivalent to Part-66 Appendix III Level 1 General Familiarisation, and could be imparted by a Part-147 organisation, by the manufacturer, or by any other organisation accepted by the competent authority.

2.5. knowledge of maintenance standards.

**AMC M.A.606(d) Personnel requirements**

1. All staff are subjected to compliance with the organisation's procedures specified in the maintenance organisation manual relevant to their duties.
2. To have sufficient staff means that the approved maintenance organisation employs or contracts staff directly, even on a volunteer basis, for the anticipated maintenance workload.
3. Temporarily sub-contracted means the person is employed by another organisation and contracted by that organisation to the approved maintenance organisation.

**AMC M.A.606(e) Personnel requirements**

1. Personnel involved in maintenance should be assessed for competence by 'on the job' evaluation and/or by examination relevant to their particular job role within the organisation before unsupervised work is permitted.
2. Adequate initial and recurrent training should be provided and recorded to ensure continued competence.

**AMC M.A.606(f) Personnel requirements**

1. Non-destructive testing means such testing specified by the type certificate holder of the aircraft, engine or propeller in the M.A.304(b) maintenance data for in service aircraft/aircraft components for the purpose of determining the continued fitness of the product to operate safely.
2. Appropriately qualified means to level 1, 2 or 3 as defined by European Standard EN 4179 dependent upon the non-destructive testing function to be carried out.
3. Notwithstanding the fact that level 3 personnel may be qualified via EN 4179 to establish and authorise methods, techniques, etc., this does not permit such personnel to deviate from methods and techniques published by the type certificate holder/manufacture in the form of continued airworthiness data, such as in non-destructive test manuals or service bulletins, unless the manual or service bulletin expressly permits such deviation.
4. Notwithstanding the general references in EN 4179 to a national aerospace NDT board, all examinations should be conducted by personnel or organisations under the general control of such a board. In the absence of a national aerospace NDT board, examinations should be conducted by personnel or organisations under the general control of the NDT board of a Member State designated by the competent authority.
5. Particular non-destructive test means any one or more of the following: dye penetrant, magnetic particle, eddy current, ultrasonic and radiographic methods including X ray and gamma ray.
6. In addition it should be noted that new methods are and will be developed, such as, but not limited to thermography and shearography, which are not specifically addressed by EN 4179. Until such time as an agreed standard is established such methods should be carried out in accordance with the particular equipment manufacturers' recommendations including any training and examination process to ensure competence of the personnel with the process.
7. Any approved maintenance organisation that carries out continued airworthiness non-destructive testing should establish qualification procedures for non-destructive testing.
8. Boroscoping and other techniques such as delamination coin tapping are non-destructive inspections rather than non-destructive testing. Notwithstanding such differentiation, approved

maintenance organisation should establish a procedure to ensure that personnel who carry out and interpret such inspections are properly trained and assessed for their competence with the process. Non-destructive inspections, not being considered as non-destructive testing by M.A. Subpart F are not listed in Appendix IV to Part-M under class rating D1.

9. The referenced standards, methods, training and procedures should be specified in the maintenance organisation manual.
10. Any such personnel who intend to carry out and/or control a non-destructive test for which they were not qualified prior to the effective date of Part-M should qualify for such non-destructive test in accordance with EN 4179.
11. In this context officially recognised standard means those standards established or published by an official body whether having legal personality or not, which are widely recognised by the air transport sector as constituting good practice.

**AMC M.A.606(h)(2) Personnel requirements**

1. For the issue of a limited certification authorisation the commander should hold either a valid air transport pilot license (ATPL), or commercial pilots license (CPL). In addition, the limited certification authorisation is subject to the maintenance organisation manual containing procedures to address the following:

- (a) Completion of adequate airworthiness regulation training.
- (b) Completion of adequate task training for the specific task on the aircraft. The task training should be of sufficient duration to ensure that the individual has a thorough understanding of the task to be completed and should involve training in the use of associated maintenance data.
- (c) Completion of the procedural training.

The above procedures should be specified in the maintenance organisation manual and be accepted by the competent authority.

2. Typical tasks that may be certified and/or carried out by the commander holding an ATPL or CPL are minor maintenance or simple checks included in the following list:

- (a) Replacement of internal lights, filaments and flash tubes.
- (b) Closing of cowlings and refitment of quick access inspection panels.
- (c) Role changes, e.g., stretcher fit, dual controls, FLIR, doors, photographic equipment etc.
- (d) Inspection for and removal of de-icing/anti-icing fluid residues, including removal/closure of panels, cowls or covers that are easily accessible but not requiring the use of special tools.
- (e) Any check/replacement involving simple techniques consistent with this AMC and as agreed by the competent authority.

3. The authorisation should have a finite life of twelve months subject to satisfactory recurrent training on the applicable aircraft type.

**AMC M.A.607 Certifying staff and airworthiness review staff**

1. Adequate understanding of the relevant aircraft and/or aircraft component(s) to be maintained together with the associated organisation procedures means that the person has received training and has relevant maintenance experience on the product type and associated

organisation procedures such that the person understands how the product functions, what are the more common defects with associated consequences.

2. All prospective certifying staff are required to be assessed for competence, qualification and capability related to intended certifying duties. Competence and capability can be assessed by having the person work under the supervision of another certifying person for sufficient time to arrive at a conclusion. Sufficient time could be as little as a few weeks if the person is fully exposed to relevant work. The person need not be assessed against the complete spectrum of intended duties. When the person has been recruited from another approved maintenance organisation and was a certifying person in that organisation then it is reasonable to accept a written confirmation from the previous organisation.
3. The organisation should hold copies of all documents that attest to qualification, and to recent experience.

**AMC M.A.607(c) Certifying staff and airworthiness review staff**

1. The following minimum information as applicable should be kept on record in respect of each certifying person:
  - (a) name;
  - (b) date of birth;
  - (c) basic training;
  - (d) type training;
  - (e) recurrent training;
  - (f) specialised training;
  - (g) experience;
  - (h) qualifications relevant to the approval;
  - (i) scope of the authorisation and personal authorisation reference;
  - (j) date of first issue of the authorisation;
  - (k) if appropriate - expiry date of the authorisation.
2. The following minimum information, as applicable, should be kept on record in respect of each airworthiness review person:
  - (a) name;
  - (b) date of birth;
  - (c) certifying staff authorisation;
  - (d) experience as certifying staff on ELA1 aircraft;
  - (e) qualifications relevant to the approval (knowledge of relevant parts of Part-M and knowledge of the relevant airworthiness review procedures);
  - (f) scope of the airworthiness review authorisation and personal authorisation reference;
  - (g) date of the first issue of the airworthiness review authorisation; and
  - (h) if appropriate, expiry date of the airworthiness review authorisation.
3. Persons authorised to access the system should be maintained at a minimum to ensure that records cannot be altered in an unauthorised manner or that such confidential records become accessible to unauthorised persons.

4. The competent authority should be granted access to the records upon request.

**AMC M.A.608(a) Components, equipment and tools**

1. Once the applicant for M.A. Subpart F approval has determined the intended scope of approval for consideration by the competent authority, it will be necessary to show that all tools and equipment as specified in the maintenance data can be made available when needed.
2. All such tools should be clearly identified and listed in a control register including any personal tools and equipment that the organisation agrees can be used.
3. For tools required on an occasional basis, the organisation should ensure that they are controlled in terms of servicing or calibration as required.

**AMC M.A.608(b) Components, equipment and tools**

1. The control of these tools and equipment requires that the organisation has a procedure to inspect/service and, where appropriate, calibrate such items on a regular basis and indicate to users that the item is within any inspection or service or calibration time-limit. A clear system of labelling all tooling, equipment and test equipment is therefore necessary giving information on when the next inspection or service or calibration is due and if the item is unserviceable for any other reason where it may not be obvious. A register should be maintained for all the organisation's precision tooling and equipment together with a record of calibrations and standards used.
2. Inspection, service or calibration on a regular basis should be in accordance with the equipment manufacturers' instructions except where the M.A. Subpart F organisation can show by results that a different time period is appropriate in a particular case.
3. In this context officially recognised standard means those standards established or published by an official body whether having legal personality or not, which are widely recognised by the air transport sector as constituting good practice.

**AMC M.A.609 Maintenance Data**

When an organisation uses customer provided maintenance data, the scope of approval indicated in the maintenance organisation manual should be limited to the individual aircraft covered by the contracts signed with those customers unless the organisation also holds its own complete set of maintenance data for that type of aircraft.

**AMC M.A.610 Maintenance work orders**

'A written work order' may take the form of, but not limited to, the following:

- A formal document or form specifying the work to be carried out. This form may be provided by the continuing airworthiness management organisation managing the aircraft, or by the maintenance organisation undertaking the work, or by the owner/operator himself;
- An entry in the aircraft log book specifying the defect that needs to be corrected.

**AMC M.A.613(a) Component certificate of release to service**

1. An aircraft component which has been maintained off the aircraft requires the issuance of a CRS for such maintenance and another CRS in regard to being installed properly on the aircraft when such action occurs. When an organisation maintains a component for use by the same organisation, an EASA Form 1 may not be necessary depending upon the organisation's internal release procedures defined in the maintenance organisation exposition.
2. In the case of components in storage prior to Part-145, Part-M and Part-21 and not released on an EASA Form 1 or equivalent in accordance with M.A.501(a) or removed serviceable from a serviceable aircraft which have been withdrawn from service, this paragraph provides additional guidance regarding the conditions under which an EASA Form 1 may be issued.
  - 2.1. An EASA Form 1 may be issued for an aircraft component which has been:
    - Maintained before Part-145, or Part-M became effective or manufactured before Part-21 became effective.
    - Used on an aircraft and removed in a serviceable condition. Examples include leased and loaned aircraft components.
    - Removed from aircraft which have been withdrawn from service, or from aircraft which have been involved in abnormal occurrences such as accidents, incidents, heavy landings or lightning strikes.
    - Components maintained by an unapproved organisation.
  - 2.2. An appropriately rated M.A Subpart F maintenance organisation may issue an EASA Form 1 as detailed in this AMC subparagraph 2.5 to 2.9, as appropriate, in accordance with the procedures detailed in the manual as approved by the competent authority. The appropriately rated M.A Subpart F maintenance organisation is responsible for ensuring that all reasonable measures have been taken to ensure that only approved and serviceable aircraft components are issued an EASA Form 1 under this paragraph.
  - 2.3. For the purposes of this paragraph 2 only, 'appropriately rated' means an organisation with an approval class rating for the type of component or for the product in which it may be installed.
  - 2.4. An EASA Form 1 issued in accordance with this paragraph 2 should be issued by signing in block 14b and stating 'Inspected/Tested' in block 11. In addition, block 12 should specify:
    - 2.4.1. when the last maintenance was carried out and by whom;
    - 2.4.2. if the component is unused, when the component was manufactured and by whom with a cross-reference to any original documentation which should be included with the Form;
    - 2.4.3. a list of all ADs, repairs and modifications known to have been incorporated. If no ADs or repairs or modifications are known to be incorporated then this should be so stated;
    - 2.4.4. detail of life used for service life-limited parts being any combination of fatigue, overhaul or storage life;
    - 2.4.5. for any aircraft component having its own maintenance history record, reference to the particular maintenance history record as long as the record contains the details that would otherwise be required in block 12. The maintenance history record and acceptance test report or statement, if applicable, should be attached to the EASA Form 1.
  - 2.5. New/unused aircraft components

2.5.1. Any unused aircraft component in storage without an EASA Form 1 up to the effective date(s) for Part-21 that was manufactured by an organisation acceptable to the competent authority at the time may be issued an EASA Form 1 by an appropriately rated maintenance organisation approved under M.A Subpart F. The EASA Form 1 should be issued in accordance with the following subparagraphs which should be included in a procedure within the maintenance organisation manual.

Note 1: It should be understood that the release of a stored but unused aircraft component in accordance with this paragraph represents a maintenance release under M.A Subpart F and not a production release under Part-21. It is not intended to bypass the production release procedure agreed by the Member State for parts and subassemblies intended for fitment on the manufacturers own production line.

- (a) An acceptance test report or statement should be available for all used and unused aircraft components that are subject to acceptance testing after manufacturing or maintenance as appropriate.
- (b) The aircraft component should be inspected for compliance with the manufacturer's instructions and limitations for storage and condition including any requirement for limited storage life, inhibitors, controlled climate and special storage containers. In addition, or in the absence of specific storage instructions, the aircraft component should be inspected for damage, corrosion and leakage to ensure good condition.
- (c) The storage life used of any storage life-limited parts should be established.

2.5.2. If it is not possible to establish satisfactory compliance with all applicable conditions specified in subparagraph 2.5.1 (a) to (c) inclusive, the aircraft component should be disassembled by an appropriately rated organisation and subjected to a check for incorporated ADs, repairs and modifications and inspected/tested in accordance with the maintenance data to establish satisfactory condition and, if relevant, all seals, lubricants and life-limited parts replaced. Upon satisfactory completion after reassembly, an EASA Form 1 may be issued stating what was carried out and the reference to the maintenance data included.

2.6. Used aircraft components removed from a serviceable aircraft.

2.6.1. Serviceable aircraft components removed from a Member State registered aircraft may be issued an EASA Form 1 by an appropriately rated organisation subject to compliance with this subparagraph.

- (a) The organisation should ensure that the component was removed from the aircraft by an appropriately qualified person.
- (b) The aircraft component may only be deemed serviceable if the last flight operation with the component fitted revealed no faults on that component or related system.
- (c) The aircraft component should be inspected for satisfactory condition including in particular damage, corrosion or leakage and compliance with any additional maintenance data.
- (d) The aircraft record should be researched for any unusual events that could affect the serviceability of the aircraft component such as involvement in accidents, incidents, heavy landings or lightning strikes. Under no circumstances may an EASA Form 1 be issued in accordance with this paragraph 2.6 if it is suspected that the aircraft component has been subjected



**SUBPART F — MAINTENANCE ORGANISATION**

to extremes of stress, temperatures or immersion which could affect its operation.

- (e) A maintenance history record should be available for all used serialised aircraft components.
- (f) Compliance with known modifications and repairs should be established.
- (g) The flight hours/cycles/landings as applicable of any service life-limited parts including time since overhaul should be established.
- (h) Compliance with known applicable airworthiness directives should be established.
- (i) Subject to satisfactory compliance with this subparagraph 2.6.1, an EASA Form 1 may be issued and should contain the information as specified in paragraph 2.4 including the aircraft from which the aircraft component was removed.

2.6.2. Serviceable aircraft components removed from a non-Member State registered aircraft may only be issued an EASA Form 1 if the components are leased or loaned from the maintenance organisation approved under M.A Subpart F who retains control of the airworthiness status of the components. An EASA Form 1 may be issued and should contain the information as specified in paragraph 2.4 including the aircraft from which the aircraft component was removed.

2.7. Used aircraft components removed from an aircraft withdrawn from service. Serviceable aircraft components removed from a Member State registered aircraft withdrawn from service may be issued an EASA Form 1 by a maintenance organisation approved under M.A Subpart F subject to compliance with this subparagraph.

- (a) Aircraft withdrawn from service are sometimes dismantled for spares. This is considered to be a maintenance activity and should be accomplished under the control of an organisation approved under M.A. Subpart F, employing procedures approved by the competent authority.
- (b) To be eligible for installation, components removed from such aircraft may be issued with an EASA Form 1 by an appropriately rated organisation following a satisfactory assessment.
- (c) As a minimum, the assessment will need to satisfy the standards set out in paragraphs 2.5 and 2.6 as appropriate. This should, where known, include the possible need for the alignment of scheduled maintenance that may be necessary to comply with the maintenance programme applicable to the aircraft on which the component is to be installed.
- (d) Irrespective of whether the aircraft holds a certificate of airworthiness or not, the organisation responsible for certifying any removed component should satisfy itself that the manner in which the components were removed and stored are compatible with the standards required by M.A Subpart F.
- (e) A structured plan should be formulated to control the aircraft disassembly process. The disassembly is to be carried out by an appropriately rated organisation under the supervision of certifying staff, who will ensure that the aircraft components are removed and documented in a structured manner in accordance with the appropriate maintenance data and disassembly plan.
- (f) All recorded aircraft defects should be reviewed and the possible effects these may have on both normal and standby functions of removed components are to be considered.

**SUBPART F — MAINTENANCE ORGANISATION**

- (g) Dedicated control documentation is to be used as detailed by the disassembly plan, to facilitate the recording of all maintenance actions and component removals performed during the disassembly process. Components found to be unserviceable are to be identified as such and quarantined pending a decision on the actions to be taken. Records of the maintenance accomplished to establish serviceability are to form part of the component maintenance history.
- (h) Suitable M.A Subpart F facilities for the removal and storage of removed components are to be used which include suitable environmental conditions, lighting, access equipment, aircraft tooling and storage facilities for the work to be undertaken. While it may be acceptable for components to be removed, given local environmental conditions, without the benefit of an enclosed facility subsequent disassembly (if required) and storage of the components should be in accordance with the manufacturer's recommendations.

**2.8. Used aircraft components maintained by organisations not approved in accordance with M.A Subpart F or Part-145.**

For used components maintained by a maintenance organisation not approved under Part-M Subpart F or Part-145, due care should be taken before acceptance of such components. In such cases an appropriately rated maintenance organisation approved under M.A Subpart F should establish satisfactory conditions by:

- (a) dismantling the component for sufficient inspection in accordance with the appropriate maintenance data,
- (b) replacing of all service life-limited components when no satisfactory evidence of life used is available and/or the components are in an unsatisfactory condition,
- (c) reassembling and testing as necessary the component,
- (d) completing all certification requirements as specified in M.A.613.

In the case of used components maintained by an FAA Part-145 repair station (USA) or by TCCA CAR573 approved maintenance organisations (Canada) that does not hold an EASA Part-145 or M.A. Subpart F approval, the conditions (a) through (d) described above may be replaced by the following conditions:

- (a) availability of an 8130-3 (FAA) or TCCA 24-0078 (TCCA) or an Authorized Release Certificate Form One (TCCA),
- (b) verification of compliance with all applicable airworthiness directives,
- (c) verification that the component does not contain repairs or modifications that have not been approved in accordance with Part-21,
- (d) inspection for satisfactory condition including in particular damage, corrosion or leakage,
- (e) issuance of an EASA Form 1 in compliance with paragraphs 2.2, 2.3 and 2.4.

These alleviated requirements are based on the fact that credit can be taken for their technical capabilities and their competent authority oversight, as attested by the following documents:

- Maintenance Annex Guidance (MAG) between the FAA and EASA,
- Maintenance Annex Guidance (MAG) between the EASA and TCCA.

**2.9. Used aircraft components removed from an aircraft involved in an accident or incident. Such components should only be issued with an EASA Form 1 when processed in accordance with paragraph 2.7 and a specific work order including all additional necessary**

tests and inspections made necessary by the accident or incident. Such a work order may require input from the TC holder or original manufacturer as appropriate. This work order should be referenced in block 12.

3. A certificate should not be issued for any component when it is known that the component is unserviceable except in the case of a component undergoing a series of maintenance processes at several approved maintenance organisations and the component needs a certificate for the previous maintenance process carried out for the next approved maintenance organisation to accept the component for subsequent maintenance processes. In such a case, a clear statement of limitation should be endorsed in block.
4. The certificate is to be used for export/import purposes, as well as for domestic purposes, and serves as an official certificate for components from the manufacturer/maintenance organisation to users. It should only be issued by organisations approved by a competent authority or the Agency as applicable within the scope of the approval.

**AMC M.A.614(a) Maintenance and airworthiness review records**

1. Properly executed and retained records provide owners, operators and maintenance personnel with information essential in controlling unscheduled and scheduled maintenance, and troubleshooting to eliminate the need for re-inspection and rework to establish airworthiness.
2. The prime objective is to have secure and easily retrievable records with comprehensive and legible contents. The aircraft record should contain basic details of all serialised aircraft components and all other significant aircraft components installed, to ensure traceability to such installed aircraft component documentation and associated M.A.304 maintenance data.
3. The maintenance record can be either a paper or computer system or any combination of both. The records should remain legible throughout the required retention period.
4. Paper systems should use robust material which can withstand normal handling and filing.
5. Computer systems may be used to control maintenance and/or record details of maintenance work carried out. Computer systems used for maintenance should have at least one backup system which should be updated at least within 24 hours of any maintenance. Each terminal is required to contain programme safeguards against the ability of unauthorised personnel to alter the database.

**AMC M.A.614(c) Maintenance and airworthiness review records**

Associated maintenance data is specific information such as repair and modification data. This does not necessarily require the retention of all aircraft maintenance manual, component maintenance manual, parts catalogues etc. issued by the TC holder or STC holder. Maintenance records should refer to the revision status of the data used.

**GM M.A.615 Privileges of the organisation**

M.A.615 states that the organisation shall only maintain an aircraft or component for which it is approved when all the necessary facilities, equipment, tooling, material, maintenance data, and certifying staff are available.

This provision is intended to cover the situation where the larger organisation may temporarily not hold all the necessary tools, equipment, etc. for an aircraft type or variant specified in the organisation's approval. This paragraph means that the competent authority need not amend the approval to delete the aircraft

type or variants on the basis that it is a temporary situation and there is a commitment from the organisation to re-acquire tools, equipment, etc. before maintenance on the type may recommence.

**GM M.A.615(a) Privileges of the organisation**

M.A.615(a) applies also to facilities which may not be individually approved by the competent authority, such as those described in AMC M.A.605(a) for ELA2 aircraft.

**AMC M.A.615(b) Privileges of the organisation**

M.A.615(b) refers to work carried out by another organisation which is not appropriately approved under M.A. Subpart F or Part-145 to carry out such tasks.

The intent is to permit the acceptance of specialised maintenance services, such as, but not limited to, non-destructive testing, surface treatment, heat-treatment, welding, fabrication of specified parts for minor repairs and modifications, etc., without the need of Subpart F approval for those tasks.

The requirement that the organisation performing the specialised services must be ‘appropriately qualified’ means that it should meet an officially recognised standard or, otherwise, it should be acceptable to the competent authority (through the approval of the Maintenance Organisation Manual).

‘Under the control of the Subpart F organisation’ means that the Subpart F organisation should investigate the capability of the subcontracted organisation (including qualifications, facilities, equipment and materials) and ensure that such organisation:

- Receives appropriate maintenance instructions and maintenance data for the task to be performed.
- Properly records the maintenance performed in the Subpart F airworthiness records.
- Notifies the Subpart F organisation for any deviation or non-conformity, which has arisen during such maintenance.

The CRS may be issued either at the subcontractors or at the organisation facility by authorised certifying staff, and always under the M.A. Subpart F organisation reference. Such staff would normally come from the M.A. Subpart F organisation but may otherwise be a person from the subcontractor who meets the M.A. Subpart F organisation certifying staff standard which itself is approved by the competent authority via the Maintenance Organisation Manual.

Subcontracted specialised services organisations should be listed in the Maintenance Organisation Manual of the Subpart F organisation together with their qualifications, and the associated control procedures.

**AMC M.A.616 Organisational review**

1. The primary objectives of the organisational review are to enable the approved maintenance organisation to ensure that it can deliver a safe product and that approved maintenance organisation remains in compliance with the requirements.
2. The approved maintenance organisation should identify:
  - 2.1. the person responsible for the organisational review;
  - 2.2. the frequency of the reviews;
  - 2.3. the scope and content of the reviews;
  - 2.4. the persons accomplishing the reviews;

- 2.5. the procedure for planning, performing and processing review findings; and,
- 2.6. the procedure for ensuring corrective actions are carried out in the appropriate time frame.
3. The organisation quality system as specified in Part-145 provides an acceptable basic structure for the organisational review system for organisations with more than 10 maintenance staff, dependent upon the complexity of the organisation.
4. Appendix VIII to AMC M.A.616 should be used to manage the organisational reviews.

**AMC M.A.617 Changes to the approved maintenance organisation**

The competent authority should be given adequate notification of any proposed changes in order to enable the maintenance organisation to remain approved if agreed by the competent authority during negotiations about any of the specified changes. Without this paragraph the approval would automatically be suspended in all cases.

**SUBPART G — CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION**

**AMC M.A.702 Application**

An application should be made on an EASA Form 2 (Appendix IX to AMC M.A.602 and AMC M.A.702) or equivalent acceptable to the competent authority

The EASA Form 2 is valid for the application for M.A. Subpart F, Part-145 and M.A. Subpart G organisations. Organisations applying for several approvals may do so using a single EASA Form 2.

**AMC M.A.704 Continuing airworthiness management exposition**

1. The purpose of the continuing airworthiness management exposition is to set forth the procedures, means and methods of the CAMO. Compliance with its contents will assure compliance with Part-M requirements.
2. A continuing airworthiness management exposition should comprise:
  - Part 0 General organisation
  - Part 1 Continuing airworthiness procedures
  - Part 2 Quality system or organisational review (as applicable)
  - Part 3 Contracted maintenance (for operators) – management of maintenance (liaison with maintenance organisations in the case of other than commercial air transport operators)
  - Part 4 Airworthiness review procedures (if applicable)
3. Where a CAMO is also approved to another Part, the exposition or manual required by the other Part may form the basis of the continuing airworthiness management exposition in a combined document. Example for a combined Part-145 and M.A. Subpart G organisation:

*Part-145 Exposition (see equivalent paragraphs in AMC 145.A.70(a))*

- Part 1 Management
- Part 2 Maintenance procedures
- Part L2 Additional line maintenance procedures
- Part 3 Quality system and/or organisational review (as applicable)
- Part 4 Contracts with owners/operators
- Part 5 Appendices (sample of documents)
- Part 7 FAA supplement (if applicable)
- Part 8 TCCA supplement (if applicable)

Part 3 should also cover the functions specified by M.A.712 quality system.

Part 4 should also cover contracted maintenance (for operators) – Management of maintenance (liaison with maintenance organisations in the case of other than commercial air transport operators)

Additional parts should be introduced covering the following (*see equivalent paragraphs in Appendix V to AMC M.A.704, which may have a different numbering system*):

- Part 0 General organisation
- Part 6 Continuing airworthiness management procedures

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART G — CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION**

Part 9 Airworthiness review procedures (if applicable)

Example for a combined M.A. Subpart F and M.A. Subpart G organisation:

*M.A. Subpart F Maintenance Organisation Manual (see equivalent paragraphs in Appendix IV to AMC M.A.604, which have a different numbering system)*

Part 1 General

Part 2 Description

Part 3 General Procedures

Part 4 Working Procedures. This Part contains, among other things, procedures for Organisational Reviews.

Part 5 Appendixes

Part 4 should also cover the functions specified by M.A.712 quality system (or organisation review, as applicable).

Additional parts should be introduced covering the following (*see equivalent paragraphs in Appendix V to AMC M.A.704, which may have a different numbering system*):

Part 0 General organisation

Part 6 Continuing airworthiness management procedures

Part 7 Airworthiness review procedures (if applicable)

4. Personnel should be familiar with those parts of the exposition that are relevant to their tasks.
5. The CAMO should specify in the exposition who is responsible for the amendment of the document.
6. Unless otherwise agreed by the approving competent authority, the person responsible for the management of the quality system or for the organisational review should be responsible for monitoring and amending the exposition, including associated procedures manuals, and the submission of proposed amendments to the approving competent authority. The approving competent authority may agree a procedure, which will be stated in the amendment control section of the exposition, defining the class of amendments which can be incorporated without the prior consent of the competent authority.
7. The operator may use electronic data processing (EDP) for publication of the continuing airworthiness management exposition. The continuing airworthiness management exposition should be made available to the approving competent authority in a form acceptable to the competent authority. Attention should be paid to the compatibility of EDP publication systems with the necessary dissemination of the continuing airworthiness management exposition, both internally and externally.
8. Part 0 'General organisation' of the continuing airworthiness management exposition should include a corporate commitment by the CAMO, signed by the accountable manager confirming that the continuing airworthiness management exposition and any associated manuals define the organisation compliance with Part-M and will be complied with at all times.
9. The accountable manager's exposition statement should embrace the intent of the following paragraph, and in fact this statement may be used without amendment. Any modification to the statement should not alter the intent:

This exposition defines the organisation and procedures upon which the competent authority\* M.A. Subpart G continuing airworthiness management approval is based.

These procedures are approved by the undersigned and should be complied with, as applicable, in order to ensure that all continuing airworthiness tasks of ... (quote operator's name) ... fleet of aircraft and/or of all aircraft under contract in accordance with M.A.201 (e) with ... (quote organisation's name) ... are carried out on time to an approved standard.

It is accepted that these procedures do not override the necessity of complying with any new or amended regulation published from time to time where these new or amended regulations are in conflict with these procedures.

It is understood that the competent authority\* will approve this organisation whilst the competent authority\* is satisfied that the procedures are being followed and the work standard is maintained. It is understood that the competent authority\* reserves the right to suspend, vary or revoke the M.A. Subpart G continuing airworthiness management approval of the organisation or the air operators certificate, as applicable, if the competent authority\* has evidence that the procedures are not followed and the standards not upheld.

Signed .....

Dated .....

Accountable Manager and ... (quote position) ...

For and on behalf of ... (quote organisation's name) ... '

\*Where it states competent authority, please insert the actual name of the approving competent authority organisation or administration delivering the M.A. Subpart G continuing airworthiness management approval or the air operators certificate.

10. Whenever the accountable manager is changed it is important to ensure that the new accountable manager signs the paragraph 9 statement at the earliest opportunity as part of the acceptance by the approving competent authority.

Failure to carry out this action invalidates the M.A. Subpart G continuing airworthiness management approval or the air operators certificate.

11. The exposition should contain information as applicable, on how the continuing airworthiness management organisation complies with CDCCL instructions.

Appendix V to AMC M.A.704 contains an example of an exposition lay-out.

#### **AMC M.A.705 Facilities**

Office accommodation should be such that the incumbents, whether they be continuing airworthiness management, planning, technical records or quality staff, can carry out their designated tasks in a manner that contributes to good standards. In the smaller CAMO, the competent authority may agree to these tasks being conducted from one office subject to being satisfied that there is sufficient space and that each task can be carried out without undue disturbance. Office accommodation should also include an adequate technical library and room for document consultation.

#### **AMC M.A.706 Personnel requirements**

1. The person or group of persons should represent the continuing airworthiness management structure of the organisation and be responsible for all continuing airworthiness functions. Dependent on the size of the operation and the organisational set-up, the continuing airworthiness functions may be divided under individual managers or combined in nearly any number of ways. However, if a quality system is in place it should be independent from the other functions.



2. The actual number of persons to be employed and their necessary qualifications is dependent upon the tasks to be performed and thus dependent on the size and complexity of the organisation (general aviation aircraft, corporate aircraft, number of aircraft and the aircraft types, complexity of the aircraft and their age and for commercial air transport, route network, line or charter, ETOPS) and the amount and complexity of maintenance contracting. Consequently, the number of persons needed, and their qualifications may differ greatly from one organisation to another and a simple formula covering the whole range of possibilities is not feasible.
3. To enable the competent authority to accept the number of persons and their qualifications, an organisation should make an analysis of the tasks to be performed, the way in which it intends to divide and/or combine these tasks, indicate how it intends to assign responsibilities and establish the number of man/hours and the qualifications needed to perform the tasks. With significant changes in the aspects relevant to the number and qualifications of persons needed, this analysis should be updated.
4. Nominated person or group of persons should have:
  - 4.1. practical experience and expertise in the application of aviation safety standards and safe operating practices;
  - 4.2. a comprehensive knowledge of:
    - (a) relevant parts of operational requirements and procedures;
    - (b) the AOC holder's operations specifications when applicable;
    - (c) the need for, and content of, the relevant parts of the AOC holder's operations manual when applicable;
  - 4.3. knowledge of quality systems;
  - 4.4. five years relevant work experience of which at least two years should be from the aeronautical industry in an appropriate position;
  - 4.5. a relevant engineering degree or an aircraft maintenance technician qualification with additional education acceptable to the competent authority. 'relevant engineering degree' means an engineering degree from aeronautical, mechanical, electrical, electronic, avionic or other studies relevant to the maintenance and continuing airworthiness of aircraft/aircraft components;

The above recommendation may be replaced by 5 years of experience additional to those already recommended by paragraph 4.4 above. These 5 years should cover an appropriate combination of experience in tasks related to aircraft maintenance and/or continuing airworthiness management and/or surveillance of such tasks;
  - 4.6. thorough knowledge with the organisation's continuing airworthiness management exposition;
  - 4.7. knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course. These courses should be at least at a level equivalent to Part-66 Appendix III Level 1 General Familiarisation and could be imparted by a Part-147 organisation, by the manufacturer, or by any other organisation accepted by the competent authority.

'Relevant sample' means that these courses should cover typical systems embodied in those aircraft being within the scope of approval.

For all balloons and any other aircraft of 2 730 kg MTOM and below the formalised training courses may be replaced by demonstration of knowledge. This knowledge may be

demonstrated by documented evidence or by an assessment performed by the competent authority. This assessment should be recorded.

- 4.8. knowledge of maintenance methods.
- 4.9. knowledge of applicable regulations.

**AMC M.A.706(a) Personnel requirements**

Accountable manager is normally intended to mean the chief executive officer of the CAMO, who by virtue of position has overall (including in particular financial) responsibility for running the organisation. The accountable manager may be the accountable manager for more than one organisation and is not required to be knowledgeable on technical matters. When the accountable manager is not the chief executive officer, the competent authority will need to be assured that such an accountable manager has direct access to the chief executive officer and has a sufficiency of continuing airworthiness funding allocation.

**AMC M.A.706(e) Personnel requirements**

1. The competent authority of the operator should only accept that the nominated post holder be employed by the organisation approved under Part-145 when it is manifest that he/she is the only available competent person in a position to exercise this function, within a practical working distance from the operator's offices.
2. This paragraph only applies to contracted maintenance and therefore does not affect situations where the organisation approved under Part-145 and the operator are the same organisation.

**AMC M.A.706(f) Personnel requirements**

Additional training in fuel tank safety as well as associated inspection standards and maintenance procedures should be required of CAMO technical personnel, especially the staff involved with the management of CDCCL, Service Bulletin assessment, work planning and maintenance programme management. EASA guidance is provided for training to CAMO personnel in Appendix XII to AMC to M.A.706(f) and M.B.102(c).

**AMC M.A.706(i) Personnel requirements**

The approval by the competent authority of the exposition, containing in M.A.704(a)3 the list of M.A.706(i) personnel, constitutes their formal acceptance by the competent authority and also their formal authorisation by the organisation.

Airworthiness review staff are automatically recognised as persons with authority to extend an airworthiness review certificate in accordance with M.A.711(a)4 and M.A.901(f).

**AMC M.A.706(k) Personnel requirements**

Adequate initial and recurrent training should be provided and recorded to ensure continued competence.

**AMC M.A.707(a) Airworthiness review staff**

1. Airworthiness review staff are only required if the CAMO wants to be granted M.A.711(b) airworthiness review and, if applicable, M.A.711(c) permit to fly privileges.
2. 'experience in continuing airworthiness' means any appropriate combination of experience in tasks related to aircraft maintenance and/or continuing airworthiness management and/or surveillance of such tasks.

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART G — CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION**

3. A person qualified to the AMC M.A.706 subparagraph 4.5 should be considered as holding the equivalent to an aeronautical degree.
4. An appropriate licence in compliance with Annex III (Part-66) is any one of the following:
  - a category B1 licence in the subcategory of the aircraft reviewed, or
  - a category B2 or C licence, or
  - in the case of piston-engine non-pressurised aeroplanes of 2 000 kg MTOM and below, a category B3 licence.

It is not necessary to satisfy the experience requirements of Part-66 at the time of the review.

5. To hold a position with appropriate responsibilities means the airworthiness review staff should have a position in the organisation independent from the airworthiness management process or with overall authority on the airworthiness management process of complete aircraft.

Independence from the airworthiness management process may be achieved, among other ways, by:

- Being authorised to perform airworthiness reviews only on aircraft for which the person has not participated in their management. For example, performing airworthiness reviews on a specific model line, while being involved in the airworthiness management of a different model line.
- M.A. Subpart G organisations with Part-145/M.A. Subpart F approval, may nominate maintenance personnel from their Part-145/M.A. Subpart F organisation as airworthiness review staff, as long as they are not involved in the airworthiness management of the aircraft. These personnel should not have been involved in the release to service of that particular aircraft (other than maintenance tasks performed during the physical survey of the aircraft or performed as a result of findings discovered during such physical survey) to avoid possible conflict of interests.
- Nominating as airworthiness review staff personnel from the quality department of the CAMO.

Overall authority on the airworthiness management process of complete aircraft may be achieved, among other ways, by:

- Nominating as airworthiness review staff the accountable manager or the nominated postholder.
- Being authorised to perform airworthiness reviews only on those particular aircraft for which the person is responsible for the complete continuing airworthiness management process.
- In the case of one-man organisations, this person has always overall authority. This means that this person can be nominated as airworthiness review staff.

**AMC M.A.707(a)(1) Airworthiness review staff**

For all aircraft used in commercial air transport and any other aircraft, other than balloons, above 2 730 kg MTOM, formal aeronautical maintenance training means training (internal or external) supported by evidence on the following subjects:

- Relevant parts of initial and continuing airworthiness regulations.

- Relevant parts of operational requirements and procedures, if applicable.
- The organisation's continuing airworthiness management exposition.
- Knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course. These courses should be at least at a level equivalent to Part-66 Appendix III Level 1 General Familiarisation and could be imparted by a Part-147 organisation, by the manufacturer, or by any other organisation accepted by the competent authority.

'Relevant sample' means that these courses should cover typical systems embodied in those aircraft being within the scope of approval

- Maintenance methods.

**AMC M.A.707(a)(2) Airworthiness review staff**

For all balloons and any other aircraft of 2 730 Kg MTOM and below, not used in commercial air transport:

1. 'experience in continuing airworthiness' can be full time or part-time, either as professional or on a voluntary basis.
2. Appropriate aeronautical maintenance training means demonstrated knowledge of the following subjects:
  - Relevant parts of initial and continuing airworthiness regulations.
  - Relevant parts of operational requirements and procedures, if applicable.
  - The organisation's continuing airworthiness management exposition.
  - Knowledge of a relevant sample of the type(s) of aircraft gained through training and/or work experience. Such knowledge should be at least at a level equivalent to Part-66 Appendix III Level 1 General Familiarisation and could be imparted by a Part-147 organisation, by the manufacturer, or by any other organisation accepted by the competent authority.

'Relevant sample' means that these courses should cover typical systems embodied in those aircraft being within the scope of approval.

- Maintenance methods.

This knowledge may be demonstrated by documented evidence or by an assessment performed by the competent authority or by other airworthiness review staff already authorised within the organisation in accordance with approved procedures. This assessment should be recorded.

**AMC M.A.707(b) Airworthiness review staff**

The formal acceptance by the competent authority of the airworthiness review staff is granted through the corresponding EASA Form 4.

If the airworthiness review is performed under the supervision of existing airworthiness review staff, evidence should be provided to the competent authority together with EASA Form 4. If satisfied, the competent authority will issue the formal acceptance through EASA Form 4.

Once the airworthiness review staff has been accepted by the competent authority, the inclusion of their name in the exposition (refer to M.A.704(a)5) constitutes the formal authorisation by the organisation.

**AMC M.A.707(c) Airworthiness review staff**

In order to keep the validity of the airworthiness review staff authorisation, the airworthiness review staff should have either:

- been involved in continuing airworthiness management activities for at least six months in every two year period, or
- conducted at least one airworthiness review in the last twelve month period.

In order to restore the validity of the authorisation, the airworthiness review staff should conduct at a satisfactory level an airworthiness review under the supervision of the competent authority or, if accepted by the competent authority, under the supervision of another currently valid authorised airworthiness review staff of the concerned continuing airworthiness management organisation in accordance with an approved procedure.

**AMC M.A.707(e) Airworthiness review staff**

The minimum content of the airworthiness review staff record should be:

- Name,
- Date of Birth,
- Basic Education,
- Experience,
- Aeronautical Degree and/or Part-66 qualification and/or nationally-recognised maintenance personnel qualification,
- Initial Training received,
- Type of Training received,
- Continuation Training received,
- Experience in continuing airworthiness and within the organisation,
- Responsibilities of current role in the organisation,
- Copy of the authorisation.

**AMC M.A.708(b)3 Continuing Airworthiness Management**

When managing the approval of modifications or repairs the organisation should ensure that Critical Design Configuration Control Limitations are taken into account.

**AMC M.A.708(c) Continuing airworthiness management**

1. Where an operator is not approved under Part-145 or an operator's maintenance organisation is an independent organisation, a contract should be agreed between the operator and a maintenance organisation approved under Part-145, which specifies, in detail, the work to be performed by the maintenance organisation. Appendix XI to this AMC gives further details on the subject.

2. Both the specification of work and the assignment of responsibilities should be clear, unambiguous and sufficiently detailed to ensure that no misunderstanding should arise between the parties concerned (operator, maintenance organisation and the competent authority) that could result in a situation where work that has a bearing on the airworthiness or serviceability of aircraft is not or will not be properly performed.
3. Special attention should be paid to procedures and responsibilities to ensure that all maintenance work is performed, service bulletins are analysed and decisions taken on accomplishment, airworthiness directives are completed on time and that all work, including non-mandatory modifications is carried out to approved data and to the latest standards.
4. For line maintenance, the actual layout of the contract the IATA Standard Ground Handling Agreement may be used as a basis, but this does not preclude the competent authority of operator from ensuring that the content of the contract is acceptable to them, and especially that the contract allows the operator to properly exercise its maintenance responsibility. Those parts of a contract that have no bearing on the technical or operational aspects of airworthiness are outside the scope of this paragraph.
5. It is possible to contract another operator that is not directly approved under Part-145. In this case the operator's continuing airworthiness management exposition should include appropriate procedures to ensure that all this contracted maintenance is ultimately performed on time by organisations approved under Part-145 in accordance with the contracting operator's data. In particular the quality system procedures should place great emphasis on monitoring compliance with the above. The list of Part-145 approved contractors, or a reference to this list, should be included in the operator's continuing airworthiness management exposition.
6. Such a maintenance arrangement does not absolve the operator from its overall continuing airworthiness responsibility. Specifically, in order to accept the maintenance arrangement, the competent authority should be satisfied that such an arrangement allows the operator to ensure full compliance with responsibilities pursuant to M.A.201.
7. The purpose of M.A.708(c) is to ensure that all maintenance is carried out by properly approved Part-145 organisations. This does not preclude a primary maintenance arrangement with an operator that is not such an organisation, when it proves that such an arrangement is in the interest of the operator by simplifying the management of its maintenance, and the operator keeps an appropriate control of it. Such an arrangement should not preclude the operator from ensuring that all maintenance is performed by a Part-145 approved organisation and complying with the M.A.201 continuing airworthiness responsibility requirements. Typical examples of such arrangements follow:

— Component maintenance:

The operator may find it more appropriate to have a primary contractor that would despatch the components to appropriately approved organisations, rather than sending himself different types of components to various maintenance organisations approved under Part-145. The benefit for the operator is that the management of maintenance is simplified by having a single contact point for component maintenance. The operator remains responsible for ensuring that all maintenance is performed by maintenance organisations approved under Part-145 and in accordance with the approved standard.

— Aircraft, engine and component maintenance:

The operator may wish to have a maintenance contract with another operator of the same type of aircraft not approved under Part-145. A typical case is that of a dry-leased aeroplane between operators where the parties, for consistency or continuity reasons (especially for short term lease agreements), find it appropriate to keep the aeroplane under the current maintenance

arrangement. Where this arrangement involves various Part-145 approved contractors, it might be more manageable for the lessee operator to have a single contract with the lessor operator. Such an arrangement should not be understood as a transfer of responsibility to the lessor operator: the lessee operator, being the approved operator of the aircraft, remains responsible for the continuing airworthiness of the aircraft in performing the M.A.708 functions, and employing the M.A.706 continuing airworthiness management group of persons and staff.

In essence, this does not alter the intent of M.A.201(h) in that it also requires that the operator has to establish a written maintenance contract acceptable to the competent authority of operator and, whatever type of acceptable arrangement is made, the operator is required to exercise the same level of control on contracted maintenance, particularly through the M.A.706(c) continuing airworthiness management group of persons and quality system as referred to in M.A.712.

#### **AMC M.A.708(c)(1) Continuing airworthiness management – unscheduled maintenance**

The intent of this paragraph is that maintenance contracts are not necessary when the operator's continuing airworthiness system, as approved by the competent authority of operator, specifies that the relevant maintenance activity may be ordered through one time work orders. This includes for obvious reasons unscheduled line maintenance and may also include aeroplane component maintenance up to engines, so long as the competent authority of operator considers that the maintenance is manageable through work orders, both in term of volume and complexity. It should be noted that this paragraph implies that even where base maintenance is ordered on a case-by-case basis, there should be a written maintenance contract.

#### **AMC M.A.709 Documentation**

When using maintenance data provided by the customer, the CAMO is responsible for ensuring that this data is current. As a consequence, it should establish appropriate procedures or provisions in the contract with the customer.

The sentence '..., except when required by point M.A.714', means, in particular, the need to keep a copy of the customer data which was used to perform continuing airworthiness activities during the contract period.

'Baseline' maintenance programme: it is a maintenance programme developed for a particular aircraft type following, where applicable, the maintenance review board (MRB) report, the type certificate holder's maintenance planning document (MPD), the relevant chapters of the maintenance manual or any other maintenance data containing information on scheduling.

'Generic' maintenance programme: it is a maintenance programme developed to cover a group of similar types of aircraft. These programmes should be based on the same type of instructions as the baseline maintenance programme. Examples of 'generic' maintenance programmes could be Cessna 100 Series (covering Cessna 150, 172, 177, etc.).

'Baseline' and 'generic' maintenance programmes are not applicable to a particular aircraft registration mark, but to an aircraft type or group of types, and should be available to the competent authority prior to the initial approval and prior to the extension of the scope of an existing organisation approval. The intent is that the competent authority is aware of the scope and complexity of tasks that will be managed before granting an organisation approval or change of approval.

After this initial approval, when an owner/operator is contracted, the baseline or generic maintenance programme, as applicable, may be used to establish the M.A.302 aircraft maintenance programme, incorporating the additional maintenance tasks and indicating those which are not applicable to a particular aircraft registration mark. This may be achieved by adding an Annex to the baseline/generic maintenance programme for each aircraft registration, specifying which tasks are added and which are not applicable. This will result in an aircraft maintenance programme specific for each customer.

However, this does not mean that this adaptation must be performed for each contracted aircraft registration. The reason is that the customer may already have an approved aircraft maintenance programme, which in that case should be used by the continuing airworthiness management organisation to manage the continuing airworthiness of such aircraft.

Continuing airworthiness management organisations may seek authorisation for indirect approval in order to amend the aircraft maintenance programme mentioned above in accordance with M.A.302(c). The indirect approval procedure should include provisions to notify to the competent authority that an aircraft maintenance programme specific for a customer has been created. The reason is that, according to M.A.704(a)9, for aircraft not involved in commercial air transport the Continuing Airworthiness Management Exposition (CAME) only needs to include the reference to the baseline/generic maintenance programme.

#### **GM M.A.709 Documentation**

Paragraph M.A.709(a) refers to continuing airworthiness tasks referred to in M.A.708. As a consequence, this covers continuing airworthiness management tasks but not airworthiness reviews.

Airworthiness review requirements are established in M.A.710 and the requirements for the corresponding record retention are contained in M.A.714.

#### **GM M.A.710 Airworthiness review**

##### Responsibilities of airworthiness review staff:

The following is a summary of the requirements contained in M.A.710 as well as the associated AMCs and Appendices, in relation to the responsibilities of the airworthiness review staff:

- Airworthiness review staff are responsible for performing both the documental and the physical survey.
- Procedures must be established by the CAMO in order to perform the airworthiness review, including the depth of samplings (refer to Appendix V to AMC M.A.704, paragraphs 4.2 and 4.3).
- Procedures must make very clear that the final word about the depth of the inspections (both documental and physical) belongs to the airworthiness review staff, who can go beyond the depth contained in the CAME if they find it necessary. At the end, it is the responsibility of the airworthiness review staff to be satisfied that the aircraft complies with Part-M and is airworthy, and the organisation must ensure that no pressure or restrictions are imposed on the airworthiness review staff when performing their duty.
- A compliance report must be produced by the airworthiness review staff, detailing all items checked and the outcome of the review.
- Airworthiness review staff are responsible for the items checked during the airworthiness review. However, they do not take over the responsibilities of the CAMO, Part-145, DOA, POA or any other organisations, not being responsible for problems not detected during the airworthiness review or for the possibility that the approved or declared maintenance programme may not include certain



recommendations from the Design Approval Holder. Obviously, if the airworthiness review staff are not independent of the airworthiness management process and were nominated on the basis of the option of having overall authority on such a process, they will be responsible for the full continuing airworthiness of such aircraft. Nevertheless, this responsibility will be a consequence of their position related to M.A.706 and not of their position as airworthiness review staff (M.A.707).

- The issuance of the airworthiness review certificate (ARC) by the airworthiness review staff only certifies that the aircraft is considered airworthy in relation to the scope of the airworthiness review performed and the fact that the airworthiness review staff are not aware of instances of non-compliance which endanger flight safety. Furthermore, it only certifies that the aircraft is considered airworthy at the time of the review.

It is the responsibility of the owner or contracted CAMO to ensure that the aircraft is fully airworthy at any time.

**AMC M.A.710(a) Airworthiness review**

1. A full documented review is a check of at least the following categories of documents:
  - registration papers
  - M.A.305 aircraft continuing airworthiness record system
  - M.A.306 operator's technical log system
  - list of deferred defects, minimum equipment list and configuration deviation list if applicable
  - aircraft flight manual including aircraft configuration
  - aircraft maintenance programme
  - maintenance data
  - relevant work packages
  - AD status
  - modification and SB status
  - modification and repair approval sheets
  - list of service life-limited component
  - relevant EASA Form 1 or equivalent
  - mass and balance report and equipment list
  - aircraft, engine and propeller TC Data Sheets

As a minimum, sample checks within each document category should be carried out.

2. The CAMO should develop procedures for the airworthiness review staff to produce a compliance report that confirms the above have been reviewed and found in compliance with Part-M.

**AMC M.A.710(b) and (c) Airworthiness review**

1. The physical survey could require actions categorised as maintenance (e.g. operational tests, tests of emergency equipment, visual inspections requiring panel opening etc.). In this case, after the airworthiness review a release to service should be issued in accordance with Part-M.
2. When the airworthiness review staff are not appropriately qualified to Part-66 in order to release such maintenance, M.A.710(b) requires them to be assisted by such qualified personnel.

However, the function of such Part-66 personnel is limited to perform and release the maintenance actions requested by the airworthiness review staff, it not being their function to perform the physical survey of the aircraft. As stated in M.A.710(b), the airworthiness review staff shall carry out the physical survey of the aircraft, and this survey includes the verification that no inconsistencies can be found between the aircraft and the documented review of records.

3. This means that the airworthiness review staff who are going to sign the airworthiness review certificate or the recommendation should be the one performing both the documented review and the physical survey of the aircraft, it not being the intent of the rule to delegate the survey to Part-66 personnel who are not airworthiness review staff. Furthermore, the provision of M.A.710(d) allowing a 90 days anticipation for the physical survey provides enough flexibility to ensure that the airworthiness review staff are present.
4. The physical survey may include verifications to be carried out during flight.
5. The CAMO should develop procedures for the airworthiness review staff to produce a compliance report that confirms the physical survey has been carried out and found satisfactory.
6. To ensure compliance the physical survey may include relevant sample checks of items.

**AMC M.A.710(d) Airworthiness review**

‘Without loss of continuity of the airworthiness review pattern’ means that the new expiration date is set up one year after the previous expiration date. As a consequence, when the airworthiness review is anticipated, the validity of the airworthiness review certificate is longer than one year (up to 90 days longer).

This anticipation of up to 90 days also applies to the 12 month requirements shown in M.A.901(b), which means that the aircraft is still considered as being in a controlled environment if it has been continuously managed by a single organisation and maintained by appropriately approved organisations, as stated in M.A.901(b), from the date when the last airworthiness review certificate was issued until the date when the new airworthiness review is performed (this can be up to 90 days less than 12 months).

**AMC M.A.710(e) Airworthiness review**

A copy of both physical survey and document review compliance reports stated above should be sent to the competent authority together with any recommendation issued.

**AMC M.A.710(ga) Airworthiness review**

This review of the maintenance programme is performed by the person who performed the airworthiness review, who could belong to the competent authority, a CAMO or a maintenance organisation or could also be independent certifying staff in accordance with M.A.901(g).

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 in the documents affecting the programme basis, such as the M.A.302(i) ‘Minimum Inspection Programme’ or the Design Approval Holder data.

- Applicable mandatory requirements for compliance with Part-21, such as Airworthiness Directives, Airworthiness Limitations, Certification Maintenance Requirements and specific maintenance requirements contained in the TCDS.

For the purpose of reviewing the results of the maintenance performed during that year, the airworthiness review staff should request the owner/CAMO to provide 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 recommendations from the Design Approval Holder which were initially disregarded by the owner.

**GM M.A.710(h) Airworthiness review**

The objective of informing the competent authority when the airworthiness review shows discrepancies linked to deficiencies in the content of the maintenance programme is to allow the competent authority to take it into account when planning the ACAM inspections and to make sure that the competent authority agrees on the amendments required in the maintenance programme as required by M.A.302(h)5.

**AMC M.A.711(b) Privileges of the organisation**

An organisation may be approved for the privileges of M.A.711(a) only, without the privilege to carry out airworthiness reviews. This can be contracted to another appropriately approved organisation. In such a case, it is not mandatory that the contracted organisation is linked to an AOC holder, being possible to contract an appropriately approved independent continuing airworthiness management organisation which is approved for the same aircraft type.

In order to be approved for the privileges of M.A.711(b) for a particular aircraft type, it is necessary to be approved for the privileges of M.A.711(a) for that aircraft type. As a consequence, the normal situation in this case is that the organisation will be performing continuing airworthiness management tasks and performing airworthiness reviews on every aircraft type contained in the approval certificate.

Nevertheless, this does not necessarily mean that the organisation needs to be currently managing an aircraft type in order to be able to perform airworthiness reviews on that aircraft type. The organisation may be performing only airworthiness reviews on an aircraft type without having any customer under contract for that type.

Furthermore, this situation should not necessarily lead to the removal of the aircraft type from the organisation approval. As a matter of fact, since in most cases the airworthiness review staff are not involved in continuing airworthiness management activities, it cannot be argued that these airworthiness review staff are going to lose their skills just because the organisation is not managing a particular aircraft type. The important issue in relation to maintaining a particular aircraft type in the organisation approval is whether the organisation continuously fulfils all the Subpart G requirements (facilities, documentation, qualified personnel, quality system, etc.) required for initial approval.

**AMC M.A.711(c) Privileges of the organisation**

The sentence 'for the particular aircraft for which the organisation is approved to issue the airworthiness review certificate' contained in M.A.711(c) means that:

- For aircraft used in commercial air transport, and aircraft above 2 730kg MTOM, except balloons, the permit to fly can only be issued for aircraft which are in a controlled environment and are managed by that CAMO.
- For aircraft not involved in commercial air transport of 2 730kg MTOM and below, and for all balloons, the permit to fly can be issued for any aircraft.

**AMC M.A.712(a) Quality system**

1. Procedures should be held current such that they reflect best practice within the organisation. It is the responsibility of all employees to report any difficulties with the procedures via their organisation's internal occurrence reporting mechanisms.
2. All procedures, and changes to the procedures, should be verified and validated before use where practicable.
3. The feedback part of the system should address who is required to rectify any non-compliance in each particular case and the procedure to be followed if rectification is not completed within appropriate timescales. The procedure should lead to the accountable manager specified in M.A.706.
4. The independent quality audit reports referenced in AMC M.A.712(b) should be sent to the relevant department for rectification action giving target rectification dates. Rectification dates should be discussed with such department before the quality department or nominated quality auditor confirms such dates in the report. The relevant department is required to rectify findings and inform the quality manager or the quality auditor of such rectification.
5. The accountable manager should hold regular meetings with staff to check progress on rectification except that in the large organisations such meetings may be delegated on a day to day basis to the quality manager subject to the accountable manager meeting at least twice per year with the senior staff involved to review the overall performance and receiving at least a half yearly summary report on findings of non-compliance.

**AMC M.A.712(b) Quality System**

1. The primary objectives of the quality system are to enable the CAMO to ensure airworthy aircraft and to remain in compliance with the Part-M requirements.
2. An essential element of the quality system is the independent audit.
3. The independent audit is an objective process of routine sample checks of all aspects of the CAMO ability to carry out continuing airworthiness management to the required standards. It includes some product sampling as this is the end result of the process.
4. The independent audit represents an objective overview of the complete continuing airworthiness management related activities. It is intended to complement the M.A.902 requirement for an airworthiness review to be satisfied that all aircraft managed by the organisation remain airworthy.
5. The independent audit should ensure that all aspects of M.A. Subpart G compliance are checked annually, including all the sub-contracted activities, and may be carried out as a complete single exercise or subdivided over the annual period in accordance with a scheduled plan. The independent audit does not require each procedure to be checked against each product line when it can be shown that the particular procedure is common to more than one product line and the procedure has been checked every year without resultant findings. Where findings have been identified, the particular procedure should be rechecked against other product lines until the findings have been rectified after which the independent audit procedure may revert back to

the annual interval for the particular procedure. Provided that there are no safety related findings, the audit time periods specified in this AMC may be increased by up to 100% subject to agreement by the competent authority.

6. Where the organisation has more than one location approved the quality system should describe how these are integrated into the system and include a plan to audit each location every year.
7. A report should be raised each time an audit is carried out describing what was checked and the resulting findings against applicable requirements, procedures and products.
8. The independence of the audit should be established by always ensuring that audits are carried out by personnel not responsible for the function, procedure or products being checked.
9. An organisation should establish a quality plan acceptable to the competent authority to show when and how often the activities as required by M.A. Subpart G will be audited.

#### **AMC M.A.712(f) Quality system**

A small organisation is considered to be an organisation with up to 5 full-time staff (including all M.A.706 personnel) or equivalent proportional number when using part-time staff. The complexity of the organisation, combination of aircraft and aircraft types, the utilisation of the aircraft and the number of approved locations of the organisations should also be considered before replacing the quality system by an organisational review.

Appendix XIII to this AMC should be used to manage the organisational reviews.

The following activities should not be considered as subcontracting and, as a consequence, they may be performed without a quality system, although they need to be described in the continuing airworthiness management exposition and be approved by the competent authority:

- Subscription to a technical publisher that provides maintenance data (Aircraft Maintenance Manuals, Illustrated Parts Catalogues, Service Bulletins, etc.), which may be applicable to a wide range of aircraft. These data may include maintenance schedules recommended by different manufacturers that can be afterwards used by the continuing airworthiness management organisation in order to produce customised maintenance programmes.
- Contracting the use of a software tool for the management of continuing airworthiness data and records, under the following conditions (in addition to M.A.714(d) and (e)):
  - If the tool is used by several organisations, each organisation should have access to its own data only.
  - Introduction of data can only be performed by personnel of the continuing airworthiness management organisation.
  - The data can be retrieved at any time.

#### **AMC M.A.713 Changes to the approved continuing airworthiness organisation**

1. This paragraph covers scheduled changes to the continuing airworthiness organisation's approval. Whilst the requirements relating to air operator certificates, including their issue, variation and continued validity, are prescribed in the appropriate regulation, operators should be aware this paragraph is included in Part-M and may affect continued acceptance of the continuing airworthiness management.
2. The primary purpose of this paragraph is to enable the continuing airworthiness organisation to remain approved if agreed by the competent authority during negotiations about any of the

specified changes. Without this paragraph the approval would automatically be suspended in all cases.

**AMC M.A.714 Record-keeping**

1. The CAMO should ensure that it always receives a complete CRS from the approved maintenance organisation, M.A.801(b)(2) certifying staff and/or from the Pilot-owner such that the required records can be retained. The system to keep the continuing airworthiness records should be described in the organisation continuing airworthiness management exposition.
2. When an organisation arranges for the relevant maintenance organisation to retain copies of the continuing airworthiness records on its behalf, it will nevertheless continue to be responsible for the records under M.A.714 relating to the preservation of records. If it ceases to be the organisation of the aircraft, it also remains responsible for transferring the records to any other person or organisation managing continuing airworthiness of the aircraft.
3. Keeping continuing airworthiness records in a form acceptable to the competent authority means in paper form or on a computer database or a combination of both methods. Records stored in microfilm or optical disc form are also acceptable. The record should remain legible throughout the required retention period.
4. Paper systems should use robust material which can withstand normal handling and filing.
5. Computer systems should have at least one backup system which should be updated within 24 hours of any new entry. Each terminal is required to contain programme safeguards against the ability of unauthorised personnel to alter the database.
6. Microfilming or optical storage of continuing airworthiness records may be carried out at any time. The records should be as legible as the original record and remain so for the required retention period.

**SUBPART H — CERTIFICATE OF RELEASE TO SERVICE — CRS**

**AMC M.A.801 Aircraft certificate of release to service after embodiment of a Standard Change or a Standard Repair (SC/SR)**

**1. Release to service and eligible persons**

Only natural or legal persons entitled to release to service an aircraft after maintenance in accordance with Part-M or Part-145 are considered as an eligible installer responsible for the embodiment of a SC/SR when in compliance with applicable requirements.

- For aircraft where there is no Part-66 licence applicable, the release to service of an aircraft after embodiment of a SC/SR is only possible by holders of an appropriate certifying staff qualification valid in a Member State (national qualification), with the following conditions:
  - If the holder signs the release to service on behalf of an Approved Maintenance Organisation (AMO), this is valid for aircraft registered in any Member State.
  - If the holder signs the release to service as an independent certifying staff (not on behalf of an AMO), this is only valid for aircraft registered in the Member State responsible for such certifying staff qualification.

Depending on its nature, for certain SCs/SRs, the Certification Specification CS-STAN might restrict the eligibility for the issuance of the release to service to certain persons.

Since the design of the SC/SR does not require specific approval, the natural or legal person releasing the aircraft to service after the embodiment of the change or repair takes the responsibility that the applicable Certification Specifications within CS-STAN are fulfilled while being in compliance with Part-M and/or Part-145 and not in conflict with TC holders' data. This includes responsibility in respect of an adequate design, the selection/manufacturing of suitable parts and their identification, documenting the change or repair, generation or amendment of aircraft manuals and instructions as needed, embodiment of the change/repair, releasing the aircraft to service and record-keeping.

**2. Parts and appliances to be installed as part of a SC/SR**

The design of the parts and appliances to be used in a SC/SR is considered a part of the change/repair, and, therefore, there is no need of a specific design approval. However, it is possible that for a particular SC, these Certification Specifications specifically require the use of parts and appliances that meet a technical standard. In this case, when the parts and appliances require to be authorised as an ETSO article, other articles recognised as equivalent by means of an international safety agreement or grandfathered in accordance with Regulation (EU) No 748/2012 are equally acceptable.

Normally, a SC/SR shall not contain specifically designed parts that should be produced by a production organisation approved in accordance with Part-21 (POA). However, in the case that the change or repair would contain such a part, it should be produced by an approved Production Organisation (POA), and delivered with an EASA Form 1. An arrangement in accordance with 21.A.122 (b) is not applicable.

Eligibility for installation of parts and appliances belonging to a SC/SR is subject to compliance with the Part-21 and Part-M and Part-145 related provisions, and the situation varies depending on the aircraft in/on which the SC/SR is to be embodied, and who the installer is. The need for an EASA Form 1 is addressed in Part-21 and Part-M, while less restrictive rules may, for instance, apply for ELA1 and ELA2 aircraft parts (e.g. 21.A.307) and sailplanes parts (e.g. AMC 21A.303 of the 'AMC and GM to Part-21').

Furthermore, Part-M Subpart F and Part-145 contain provisions (i.e. M.A.603(c) and 145.A.42(c)) allowing maintenance organisations to fabricate certain parts to be installed in/on the aircraft as part of their maintenance activities.

### **3. Parts and appliances identification**

The parts modified or installed during the embodiment of the SC/SR need to be permanently marked in accordance with Part-21 Subpart Q.

### **4. Documenting the SC/SR and declaring compliance with the Certification Specifications**

In accordance with Part-M or Part-145 (e.g. AMC M.A.801(f) and 145.A.50(b)), the legal or natural person responsible for the embodiment of a change or a repair should compile details of the work accomplished. In the case of SCs/SRs, this includes, as necessary, based on its complexity, an engineering file containing drawings, a list of the parts and appliances used for the change or repair, supporting analysis and the results of tests performed or any other evidence suitable to show that the design fulfils the applicable Certification Specifications within CS-STAN together with a statement of compliance and amendments to aircraft manuals, to instructions for continuing airworthiness and to other documents such as aircraft parts list, wiring diagrams, etc., as deemed necessary. The EASA Form 123 is prepared for the purpose of documenting the preparation and embodiment of the SC/SR. The aircraft logbook should contain an entry referring to EASA Form 123; both EASA Form 123 and the release to service required after the embodiment of the SC/SR should be signed by the same person.

Form 123 and all the records listed on it should follow elementary principles of controlled documentation, e.g. contain reference number of documents, issue dates, revision numbers, name of persons preparing/releasing the document, etc.

### **5. Record-keeping**

The legal or natural person responsible (see paragraph 1. above) for the embodiment of the change/repair should keep the records generated with the SC/SR as required by Part-M or Part-145 and CS-STAN.

In addition, M.A.305 requires that the aircraft owner (or CAMO, if a contract i.a.w. M.A.201 (e) exists) keeps the status of the changes/repairs embodied in/on the aircraft in order to control the aircraft configuration and manage its continuing airworthiness.

With regard to SCs/SRs, the information provided to the owner or CAMO may be listed in Form 123 and should include, as required, a copy of any modified aircraft manual and/or instructions for continuing airworthiness. All this information should normally be consulted when the aircraft undergoes an airworthiness review, and, therefore, a clear system to record the embodiment of SCs/SRs, which is also easily traceable, would be of help during subsequent aircraft inspections.

### **6. Instructions for continuing airworthiness**

As stipulated in M.A.302, the aircraft owner or CAMO needs to assess if the changes in the instructions for continuing airworthiness of the aircraft require to amend the aircraft maintenance programme and to obtain its approval.

### **7. Embodiment of more than one SC**

The embodiment of two or more related SCs described in Subpart B of CS-STAN is permitted as a single change (the use of one Form 123 only) as long as adequate references to and records of all SCs embodied are captured. Restrictions and limitations of the two (or more) SCs would apply. It is permitted to issue a single release to service containing adequate traceability of all the SCs embodied.



**8. Acceptable form to be used to record the embodiment of SCs/SRs**

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART H — CERTIFICATE OF RELEASE TO SERVICE — CRS**

**EASA Form 123 — Standard Change/Standard Repair (SC/SR) embodiment record**

<b>EASA Form 123 — Standard Change/Standard Repair (SC/SR) embodiment record</b>	<sup>1</sup> SC/SR number(s):
<sup>2</sup> SC/SR title & description:	
<sup>3</sup> Applicability:	
<sup>4</sup> List of parts (description/Part-No/Qty):	
<sup>5</sup> Operational limitations/affected aircraft manuals. Copies of these manuals are provided to the aircraft owner:	
<sup>6</sup> Documents used for the development and embodiment of this SC/SR:          * Copies of the documents marked with an asterisk are handed to the aircraft owner.	
<sup>7</sup> Instructions for continuing airworthiness. Copies of these manuals are provided to the aircraft owner:	
<sup>8</sup> Other information:	
<sup>9a.</sup> <input type="checkbox"/> This SC complies with the criteria established in 21A.90B(a) and with the relevant paragraphs of CS-STAN.	
<sup>9b.</sup> <input type="checkbox"/> This SR complies with the criteria established in 21A.431B(a) and with the relevant paragraphs of CS-STAN.	
<sup>10.</sup> Date of SC/SR embodiment:	<sup>11.</sup> Identification data and signature of the person responsible for the embodiment of the SC/SR:
<sup>12.</sup> Signature of the aircraft owner. This signature attests that all relevant documentation is handed over from the issuer of this form to the aircraft owner, and, therefore, the latter becomes aware of any impact or limitations on operations or additional continuing airworthiness requirements which may apply to the aircraft due to the embodiment of the change/repair.	

## **AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

### **SUBPART H — CERTIFICATE OF RELEASE TO SERVICE — CRS**

#### Notes:

Original remains with the legal or natural person responsible for the embodiment of the SC/SR.

The aircraft owner should retain a copy of this form.

The aircraft owner should be provided with copies of the documents referenced in boxes 5 and 7 and those in box 6 marked with an asterisk '\*'.

The 'relevant paragraphs' in boxes 9a and 9b refer to the applicable paragraphs of 'Subpart A – General' of CS-STAN and those of the SC/SR quoted in box 2.

For box 12, when the aircraft owner has signed a contract i.a.w. M.A.201 (e) (i), it is possible that the Continuing Airworthiness Management Organisation (CAMO) representative signs box 12 and provides all relevant information to the owner before next flight.

#### Completion instructions:

Use English or the official language of the State of registry to fill in the form.

1. Identify the SC/SR with a unique number and reference this number in the aircraft logbook.
  2. Specify the applicable EASA CS-STAN chapter including revision (e.g. CS-SCxxxxy or CS-SRxxxxy) & title. Provide also a short description.
  3. Identify the aircraft (a/c) registration, serial number and type.
  4. List the parts' numbers and description for the parts installed. Refer to an auxiliary document if necessary.
  5. Identify affected aircraft manuals.
  6. Refer to the documentation developed to support the SC/SR and its embodiment, including design data required by the CS-STAN: design definition, documents recording the showing of compliance with the Certification Specifications or any test result, etc. The documents' references should quote their revision/issue.
  7. Identify instructions for continuing airworthiness that need to be considered for the aircraft maintenance programme review.
  8. To be used as deemed necessary by the installer.
- 9a., 9b., 10. and 12. Self-explanatory.
11. Give full name details and certificate reference (of the natural or legal person) used for issuing the aircraft release to service.

**AMC M.A.801(b) Aircraft certificate of release to service**

A certificate of release to service is necessary before flight, at the completion of any defect rectification, whilst the aircraft operates a flight between scheduled maintenance checks.

**AMC M.A.801(d) Aircraft certificate of release to service**

1. '3 years of appropriate maintenance experience' means 3 years working in an aircraft maintenance environment on at least some of the aircraft type systems corresponding to the aircraft endorsed on the aircraft maintenance license or on the certifying staff authorisation that the person holds.
2. 'Holding the proper qualifications' means holding either:
  - (a) a valid ICAO Annex 1 compliant maintenance license for the aircraft type requiring certification, or;
  - (b) a certifying staff authorisation valid for the work requiring certification, issued by an ICAO Annex 6 approved maintenance organisation.
3. A release in accordance with this paragraph does not affect the controlled environment of the aircraft as long as the M.A.801(d)2 recheck and release has been carried out by an approved maintenance organisation.

**AMC M.A.801(f) Aircraft certificate of release to service**

1. The aircraft certificate of release to service should contain the following statement:
  - (a) 'Certifies that the work specified except as otherwise specified was carried out in accordance with Part-M and in respect to that work the aircraft is considered ready for release to service'.
  - (b) For a Pilot-owner a certificate of release to service should contain the following statement:  
'Certifies that the limited pilot-owner maintenance specified except as otherwise specified was carried out in accordance with Part M and in respect to that work the aircraft is considered ready for release to service'.
2. The certificate of release to service should relate to the task specified in the manufacturer's or operator's instruction or the aircraft maintenance programme which itself may cross-refer to a manufacturer's/operator's instruction in a maintenance manual, service bulletin etc.
3. The date such maintenance was carried out should include when the maintenance took place relative to any life or overhaul limitation in terms of date/flying hours/cycles/ landings etc., as appropriate.
4. When extensive maintenance has been carried out, it is acceptable for the certificate of release to service to summarise the maintenance so long as there is a unique cross-reference to the work-pack containing full details of maintenance carried out. Dimensional information should be retained in the work-pack record.
5. The person issuing the certificate of release to service should use his normal signature except in the case where a computer release to service system is used. In this latter case the competent authority will need to be satisfied that only the particular person can electronically issue the release to service. One such method of compliance is the use of a magnetic or optical personal card in conjunction with a personal identity number (PIN) known only to the individual, which is keyed into the computer. A certification stamp is optional.

6. At the completion of all maintenance, owners, certifying staff, operators and maintenance organisations should ensure they have a clear, concise, legible record of the work performed.
7. In the case of an M.A.801(b)2 release to service, certifying staff should retain all records necessary to prove that all requirements have been met for the issuance of a certificate of release to service.

**AMC M.A.801(g) Aircraft certificate of release to service**

1. Being unable to establish full compliance with sub-paragraph M.A.801(b) means that the maintenance required by the aircraft owner or CAMO could not be completed due either to running out of available aircraft maintenance downtime for the scheduled check or by virtue of the condition of the aircraft requiring additional maintenance downtime.
2. The aircraft owner or CAMO is responsible for ensuring that all required maintenance has been carried out before flight. Therefore an aircraft owner or CAMO should be informed and agree to the deferment of full compliance with M.A. 801(b). The certificate of release to service may then be issued subject to details of the deferment, including the aircraft owner or CAMO authorisation, being endorsed on the certificate.
3. If a CRS is issued with incomplete maintenance a record should be kept stating what action the mechanic, supervisor and certifying staff should take to bring the matter to the attention of the relevant aircraft owner or CAMO so that the issue may be discussed and resolved with the aircraft owner or CAMO.

**AMC M.A.801(h) Aircraft certificate of release to service**

‘Endangers flight safety’ means any instance where safe operation could not be assured or which could lead to an unsafe condition. It typically includes, but is not limited to, significant cracking, deformation, corrosion or failure of primary structure, any evidence of burning, electrical arcing, significant hydraulic fluid or fuel leakage and any emergency system or total system failure. An AD overdue for compliance is also considered a hazard to flight safety.

**AMC M.A.802 Component certificate of release to service**

When an approved organisation maintains an aircraft component for use by the organisation an EASA Form 1 may not be necessary depending upon the organisation’s internal release procedures, however all the information normally required for the EASA Form 1 should be adequately detailed in the certificate of release to service.

**AMC M.A.803 Pilot-owner authorisation**

1. Privately operated means the aircraft is not operated pursuant to M.A.201(h) and (i).
2. A Pilot-owner may only issue a CRS for maintenance he/she has performed.
3. In the case of a jointly-owned aircraft, the maintenance programme should list:
  - The names of all Pilot-owners competent and designated to perform Pilot-owner maintenance in accordance with the basic principles described in Appendix VIII of Part-M. An alternative would be the maintenance programme to contain a procedure to ensure how such a list of competent Pilot-owners should be managed separately and kept current.
  - The limited maintenance tasks they may perform.

4. An equivalent valid pilot license may be any document attesting a pilot qualification recognised by the Member State. It does not have to be necessarily issued by the competent authority, but it should in any case be issued in accordance with the particular Member State's system. In such a case, the equivalent certificate or qualification number should be used instead of the pilot's licence number for the purpose of the M.A.801(b)3 (certificate of release to service).
5. Not holding a valid medical examination does not invalidate the pilot licence (or equivalent) required under M.A.803(a)1 for the purpose of the Pilot-owner authorisation.

**SUBPART I — AIRWORTHINESS REVIEW CERTIFICATE**

**AMC M.A.901 Aircraft airworthiness review**

In order to ensure the validity of the aircraft airworthiness certificate, M.A.901 requires performing periodically an airworthiness review of the aircraft and its continuing airworthiness records, which results in the issuance of an airworthiness review certificate valid for one year.

**AMC M.A.901(a) Aircraft airworthiness review**

EASA Form 15a is issued by competent authorities while EASA Form 15b is issued by a M.A. Subpart G organisation and EASA Form 15c is issued by a Part-145 or an M.A. Subpart F maintenance organisation.

**AMC M.A.901(b) Aircraft airworthiness review**

1. If the continuing airworthiness of the aircraft is not managed according to an Appendix I Continuing airworthiness arrangement, the aircraft should be considered to be outside a controlled environment. Nevertheless, such arrangement is not necessary when the operator and the CAMO are the same organisation.
2. The fact that limited pilot-owner maintenance as defined in M.A.803(b) is not carried out and released by an approved maintenance organisation does not change the status of an aircraft in a controlled environment providing the CAMO under contract has been informed of any such maintenance carried out.

**AMC M.A.901(c)2, (e)2 and (f) Aircraft airworthiness review**

When the aircraft has remained within a controlled environment, the extension of the validity of the airworthiness review certificate does not require an airworthiness review but only a verification of the continuous compliance with M.A.901(b).

It is acceptable to anticipate the extension of the airworthiness review certificate by a maximum of 30 days without a loss of continuity of the airworthiness review pattern, which means that the new expiration date is set up one year after the previous expiration date. This anticipation of up to 30 days also applies to the 12 month requirements shown in M.A.901(b), meaning that the aircraft is still considered as being in a controlled environment if it has been continuously managed by a single organisation and maintained by appropriately approved organisations, as stated in M.A.901(b), from the date when the last airworthiness review certificate was issued until the date when the extension is performed (this can be up to 30 days less than 12 months).

It is also acceptable to perform the extension of an airworthiness review certificate after its expiration date, as long as all the conditions for the extension are met. However, this means the following:

- The aircraft could not fly since the airworthiness review certificate expired until it is extended, and
- The new expiration date (after extension) is set one year after the previous expiration date (not one year after the extension is performed).

**AMC M.A.901(d) and (g) Aircraft airworthiness review**

The recommendation sent by a CAMO or by M.A.901(g) certifying staff to the competent authority of the Member State of registry should be, at least, in English when the Member State of registry is different from the CAMO's Member State. Otherwise it can be completed in the official language(s) of the CAMO's Member State.

The recommendation sent to the competent authority should contain at least the items described below:

- (a) General information
  - CAMO information
  - owner/lessee information
  - date and place where the document review and the aircraft survey were carried out
  - period and place the aircraft can be seen if required by the competent authority
- (b) Aircraft information
  - registration
  - type
  - manufacturer
  - serial number
  - flight manual reference
  - weight and centre of gravity data
  - maintenance programme reference
- (c) Documents accompanying the recommendation
  - copy of registration papers
  - copy of the owners request for a new airworthiness review certificate
- (d) Aircraft status
  - aircraft total time and cycles
  - list of persons or organisations having carried out continuing airworthiness activities including maintenance tasks on the aircraft and its components since the last airworthiness review certificate
- (e) Aircraft survey
  - a precise list of the areas of the aircraft that were surveyed and their status
- (f) Findings
  - a list of all the findings made during the airworthiness review with the corrective action carried out
- (g) Statement

A statement signed by the airworthiness review staff recommending the issue of an airworthiness review certificate.



The statement should confirm that the aircraft in its current configuration complies with the following:

- airworthiness directives up to the latest published issue, and;
- type certificate datasheet;
- maintenance programme;
- component service life limitations;
- the valid weight and centre of gravity schedule reflecting the current configuration of the aircraft;
- Part 21 for all modifications and repairs;
- the current flight manual including supplements, and;
- operational requirements.

The above items should clearly state the exact reference of the data used in establishing compliance; for instance the number and issue of the type certificate data sheet used should be stated.

The statement should also confirm that all of the above is properly entered and certified in the aircraft continuing airworthiness record system and/or in the operator's technical log.

#### **AMC M.A.901(g) Aircraft airworthiness review**

The words 'certifying staff' mean that the personnel meet at the time of the airworthiness review all the Part-66 requirements to be certifying staff for the aircraft subject to review (including also continuing experience requirements), which in some cases may refer to national rules.

The formal acceptance of the certifying staff by the competent authority should only be granted after verification of the qualifications and after the satisfactory performance of an airworthiness review under supervision of the competent authority.

The sentence 'shall not be issued for more than two consecutive years' means that every three years the airworthiness review has to be performed by the competent authority or by an appropriately approved CAMO.

#### **AMC M.A.901(j) Aircraft airworthiness review**

Suitable accommodation should include:

- (a) an office with normal office equipment such as desks, telephones, photocopying machines etc. whereby the continuing airworthiness records can be reviewed.
- (b) a hangar when needed for the physical survey.

The support of personnel appropriately qualified in accordance with Part-66 is necessary when the competent authority's airworthiness review staff is not appropriately qualified.

#### **AMC M.A.901(l)1 Aircraft airworthiness review**

Independence from the continuing airworthiness management process of the aircraft means being authorised to perform airworthiness reviews only on aircraft for which the person has not participated in their continuing airworthiness management.

This may not be relevant for most maintenance organisations (Part-145 or Part-M Subpart F). Since these organisations cannot perform the continuing airworthiness management of aircraft (this is a privilege of CAMOs), it needs to be considered by those maintenance organisations (Part-145 or Part-M Subpart F) intending to nominate as airworthiness review staff certifying staff who are also employed/contracted by a CAMO and who have been involved in the continuing airworthiness management of the aircraft being reviewed.

Nevertheless, such independence is not necessary if these airworthiness review staff (who are also employed/contracted by the CAMO) can show 'overall authority on the continuing airworthiness management process of the complete aircraft'. This may be achieved, among other ways, if this person is:

- the accountable manager or the nominated postholder of the CAMO.
- responsible for the complete continuing airworthiness management process of the aircraft being reviewed.
- the only person employed by an one-man CAMO.

**GM M.A.901(l)5 Aircraft airworthiness review**

The EASA Form 15c is only applicable to ELA1 aircraft not involved in commercial operations. As a consequence, a new EASA Form 15a or 15b has to be issued if the operation of the aircraft changes to commercial. This includes the corresponding approval of the maintenance programme and the performance of an airworthiness review.

**GM M.A.901(l)7 Aircraft airworthiness review**

The objective of informing the competent authority when the airworthiness review shows discrepancies linked to deficiencies in the content of the maintenance programme is to allow the competent authority to take it into account when planning the ACAM inspections and to make sure that the competent authority agrees on the amendments required in the maintenance programme as required by M.A.302(h)5.

**AMC M.A.903(a)1 Transfer of aircraft registration within the EU**

The applicant should notify to the competent authority within the former Member State of registry so as to allow the proper transfer of information between the two competent authorities during the aircraft transfer process-

**AMC M.A.903(b) Transfer of aircraft registration within the EU**

In case of transfer of aircraft registration within EU, the aircraft owner/ operator should verify that the competent authority of the new Member State of registry has entered the new aircraft registration on the existing airworthiness review certificate and validated the change.

**AMC M.A.904(a)1 Airworthiness reviews of aircraft imported into the EU**

In order to allow for possible participation of authority personnel, the applicant should inform the competent authority at least 10 working days in advance of the time and location of the airworthiness review.

**AMC M.A.904 (a)2 Airworthiness reviews of aircraft imported into the EU**

1. When performing an airworthiness review of aircraft imported into the EU the aircraft and the relevant records should be reviewed to determine the work to be undertaken to establish the airworthiness of the aircraft.
2. In determining the work to be undertaken during the airworthiness review on the aircraft, the following should be taken into consideration:
  - (a) the information from third country authorities such as export certificates, primary authority information;
  - (b) the information on aircraft maintenance history such as continuing airworthiness records, aircraft, engine, propeller, rotor and life limited part log books or cards as appropriate, tech log/flight log/cabin log, list of deferred defects, total flight times and cycles, times and cycles since last maintenance, accident history, former maintenance schedule, former AD compliance status;
  - (c) the information on aircraft such as aircraft, engine and propeller type certificate datasheets, noise and emission certificate data sheets, flight manual and supplements;
  - (d) the aircraft continuing airworthiness status such as the aircraft and component AD status, the SB status, the maintenance status, the status of all service life limited components, weight and centre of gravity schedule including equipment list;
  - (e) the modification and repair status of the aircraft detailing elements such as owner/operator designed modifications and repairs, STCs, and parts needing European parts approval (EPA);
  - (f) the aircraft cabin configuration such as emergency equipment fitted, cockpit configuration, placards, instrument limitations, cabin layout;
  - (g) the maintenance needed for import, such as embodiment of modifications needed to comply with the EASA type certificate, bridging check to comply with the new maintenance programme;
  - (h) the avionics such as, but not limited to, radio and navigation equipment, instrument flight rules (IFR) equipment, digital flight data recorder (DFDR)/cockpit voice recorder (CVR) test, emergency locator transmitter (ELT) 406 MHz code and identification;
  - (i) the compass compensation;
  - (j) special operating rules such as extended twin-engine operations (ETOPS)/long range operations (LROPS), reduced vertical separation minima (RVSM), minimum navigation performance specifications (MNPS), all weather operations (AWOPS), area navigation (RNAV);
  - (k) the aircraft survey including verification of conformity with the flight manual and the datasheet, presence of fire proof identification plates, conformity of markings including registration, presence and serviceability of emergency equipment, internal and external lighting systems, and
  - (l) check flight including check of control system/cockpit ground check/engine run up.
3. If there is no CAMO or maintenance organisation approved for the airworthiness review of the specific aircraft type available, the competent authority may carry out the airworthiness review in accordance with this paragraph and the provisions M.A.901(h) and M.B.902. In this case, the airworthiness review should be requested to the competent authority with a 30-day notice.

**AMC M.A.904(b) Airworthiness review of aircraft imported into the EU**

The recommendation sent to the competent authority should contain at least the items described below.

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART I — AIRWORTHINESS REVIEW CERTIFICATE**

- (a) All the information set forth by AMC M.A 901(d) & (g)
- (b) Aircraft information
  - aircraft assigned registration;
  - state of manufacturer;
  - previous registration;
  - export certificate number;
  - TC and TC data sheet numbers;
  - noise and emissions TC and TC data sheet numbers;
  - comparison of prior maintenance programme with the proposed new maintenance programme.
- (c) Documents accompanying the recommendation
  - copy of the application;
  - original export certificate;
  - copy of the approvals of the flight manual and its supplements;
  - list of ADs incorporated up to the latest published issue;
  - proposed new maintenance programme;
  - status of all service life limited components;
  - the valid weight and centre of gravity schedule reflecting the current configuration of the aircraft, and;
  - Part-21 approval reference for all modifications and repairs.
- (d) Maintenance
  - a copy of the work packages requested by the CAMO including details of any bridging check to ensure all the necessary maintenance has been carried out.
- (e) Aircraft check flight
  - a copy of the check flight report.

**SECTION B PROCEDURE FOR COMPETENT AUTHORITIES**

**SUBPART A — GENERAL**

**AMC M.B.102(a) Competent authority - General**

1. In deciding upon the required airworthiness organisational structure, the competent authority should review the number of certificates to be issued, the number and size of potential operators, the number of M.A. Subpart F approved maintenance organisations and M.A. Subpart G continuing airworthiness management organisations within that Member State, as well as the level of civil aviation activity, number and complexity of aircraft and the size of the Member State's aviation industry.
2. The competent authority should retain effective control of important inspection functions and not delegate them in such a way that aircraft owners, operators, M.A. Subpart F approved maintenance organisations and M.A. Subpart G continuing airworthiness management organisations, in effect, regulate themselves in airworthiness matters.
3. The set-up of the organisational structure should ensure that the various tasks and obligations of the competent authority are not relying on individuals. That means that a continuing and undisturbed fulfilment of these tasks and obligations of the competent authority should also be guaranteed in case of illness, accident or leave of individual employees.

**AMC M.B.102(c) Competent authority – Qualification and training**

1. Competent authority inspectors should have:
  - 1.1. practical experience and expertise in the application of aviation safety standards and safe operating practices;
  - 1.2. comprehensive knowledge of:
    - (a) relevant parts of implementing rules, certification specifications and guidance material;
    - (b) the competent authority's procedures;
    - (c) the rights and obligations of an inspector;
    - (d) quality systems;
    - (e) continuing airworthiness management;
    - (f) operational procedures when affecting the continuing airworthiness management of the aircraft or the maintenance.
  - 1.3. training on auditing techniques.
  - 1.4. five years relevant work experience to be allowed to work as an inspector independently. This may include experience gained during training to obtain the subparagraph 1.5 qualification.
  - 1.5. a relevant engineering degree or an aircraft maintenance technician qualification with additional education. 'Relevant engineering degree' means an engineering degree from aeronautical, mechanical, electrical, electronic, avionic or other studies relevant to the maintenance and continuing airworthiness of aircraft/aircraft components.
  - 1.6. knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course including Fuel Tank Safety (FTS) training as described in Appendix XII to AMC to

M.A.706(f) and M.B.102(c). These courses should be at least at a level equivalent to Part-66 Appendix III Level 1 General Familiarisation.

‘Relevant sample’ means that these courses should cover typical systems embodied in those aircraft being within the scope of approval.

- 1.7. knowledge of maintenance standards.
2. In addition to technical competency, inspectors should have a high degree of integrity, be impartial in carrying out their tasks, be tactful, and have a good understanding of human nature.
3. A programme for continuation training should be developed which provides for the inspectors, at regular intervals, to visit appropriate manufacturers and attend technical symposia as well as training or refresher courses to gain first-hand knowledge of new developments. As a general policy, it is not desirable for the inspectors to obtain technical qualifications from those entities under their direct regulatory jurisdiction.

#### **AMC M.B.102(d) Competent authority organisation - Procedures**

The documented procedures should contain the following information:

- (a) The Member State’s designation of the competent authority(ies).
- (b) The title(s) and name(s) of the manager(s) of the competent authority and their duties and responsibilities.
- (c) Organisation chart(s) showing associated chains of responsibility of the senior persons.
- (d) A procedure defining the qualifications for staff together with a list of staff authorised to sign certificates.
- (e) A general description of the facilities.
- (f) Procedures specifying how the competent authority(ies) ensure(s) compliance with Part-M.

#### **AMC M.B.104(a) Record-keeping**

1. The record-keeping system should ensure that all records are accessible whenever needed within a reasonable time. These records should be organized in a consistent way throughout the competent authority (chronological, alphabetical order, etc.).
2. All records containing sensitive data regarding applicants or organisations should be stored in a secure manner with controlled access to ensure confidentiality of this kind of data.
3. All computer hardware used to ensure data backup should be stored in a different location from that containing the working data in an environment that ensures they remain in good condition. When hardware- or software-changes take place special care should be taken that all necessary data continues to be accessible at least through the full period specified in M.B.104(c) and/or (e).

#### **AMC M.B.104(f) Record-keeping**

The cases, when records shall be made available should be limited to:

- incidents or accidents,
- findings through the aircraft continuing monitoring program where organisations approved by another competent authority are involved, to determine the root cause,
- aircraft mainly operated in another Member State,
- an aircraft previously operated in another Member State,

— an organisation having approvals in several Member States.

When records are requested from another Member State, the reason for the request should be clearly stated. The records can be made available by sending a copy or by allowing their consultation.

**AMC M.B.105(a) Mutual exchange of information**

One typical case where the mutual exchange of information is necessary is when an aircraft is transferred inside the EU according to M.A.903. When notified of such a transfer, a competent authority should inform the competent authority where the aircraft will be registered of any known problems with the aircraft being transferred. Furthermore, the competent authority where the aircraft will be registered should ensure that the former competent authority has been properly notified that the aircraft is leaving.

**SUBPART B — ACCOUNTABILITY**

To be developed as appropriate.



**SUBPART C — CONTINUING AIRWORTHINESS**

**AMC M.B.301(a) Maintenance programme**

For the competent authority of registry to verify compliance with M.A.302, the auditing surveyor/inspector should have received training on maintenance programme development and control.

**AMC M.B.301(b) Maintenance programme**

1. When assessing aircraft maintenance programmes for approval, the competent authority should verify that the maintenance programme is acceptable for the continued airworthiness of the specific aircraft listed and it is appropriate for the proposed operating environment and scheduled utilisation.
2. The competent authority should assess the contents taking into account the origins of the document i.e. the manufacturers recommended maintenance programme, a MRB report, the operators own experience or another approved programme.
3. A competent authority may elect to publish a proposed maintenance schedule for a piston engined aircraft type or a group of piston engined aircraft types below 2 730Kgs maximum take off mass (MTOM) or for a sailplane, powered sailplane or balloon type or for a group of sailplanes, powered sailplanes or balloon types. When owners/operators of the aircraft mentioned above elect to use a competent authority proposed maintenance schedule, all the out of phase manufacturer recommendations should be incorporated into the final maintenance programme in order for it to be approved.
4. A copy of the approved programme should be retained by the competent authority, unless the programme is approved by a CAMO.
5. The documentation issued by the competent authority to approve the operator's maintenance programme may include details of who may issue certificates of release to service in a particular situation and may define which tasks are considered as complex maintenance tasks or limited pilot owner maintenance according to Appendix VIII to Part-M.
6. In the case of commercial air transport or large aircraft, development of the approved operator's maintenance programme is dependent upon sufficient satisfactory in-service experience which has been properly processed. In general, the task being considered for escalation beyond the MRB limits should have been satisfactorily repeated at the existing frequency several times before being proposed for escalation. Appendix I to AMC M.A.302 and M.B.301(b) gives further information.
7. The competent authority may approve an incomplete maintenance programme at the start of operation of an aircraft or an operator, subject to limiting the approval of the maintenance programme to a period that does not exceed any required maintenance not yet approved.
8. If the competent authority is no longer satisfied that a safe operation can be maintained, the approval of a maintenance programme or part of it may be suspended or revoked. Events giving rise to such action include:
  - 8.1. An operator changing the utilisation of an aircraft;
  - 8.2. The owner or CAMO has failed to ensure that the programme reflects the maintenance needs of the aircraft such that safe operation can be assured.

**AMC M.B.301(c) Maintenance Programme**

1. Approval of an aircraft maintenance programme through a procedure established by a CAMO should require the organisation to demonstrate to the competent authority that it has competence, procedures and record keeping provisions, which will enable the organisation to analyse aircraft reliability, TC holder's instructions, and other related operating and maintenance criteria.
2. According to the complexity of the aircraft and the nature of the operation, the maintenance programme procedures should contain reliability centred maintenance and condition monitored maintenance programme procedures and have procedures relating to the programme control which contain the following provisions:
  - (a) task escalation or adjustment,
  - (b) maintenance programme review,
  - (c) SB or Service Information assessment,
  - (d) component and structures in service performance review,
  - (e) maintenance programme revision,
  - (f) maintenance procedure effectiveness review and amendment,
  - (g) maintenance review board report (MRBR) or manufacturer maintenance planning document (MPD) review and assessment, as appropriate,
  - (h) AD review and assessment,
  - (i) owner/maintenance/CAMO liaison,
  - (j) training.
3. When the competent authority requests it, the organisation should make provision for the attendance of a representative of the competent authority at meetings held to consider maintenance implications arising from reviews of the above provisions.

**AMC M.B.301(d) Maintenance programme**

Programmes and all associated airworthiness data, including that data used for substantiating the escalation of programmes should be made available to the competent authority upon request.

**AMC M.B.303 Aircraft continuing airworthiness monitoring**

The competent authority may create an adapted airworthiness survey programme for the aircraft for which it performs the airworthiness review.

**AMC1 M.B.303(b) Aircraft continuing airworthiness monitoring**

**SCOPE OF SURVEYS**

1. The competent authority should undertake sample product surveys of aircraft on its register to verify that:
  - (a) the condition of an aircraft as sampled is to a standard acceptable for the Certificate of Airworthiness/Airworthiness Review Certificate to remain in force,
  - (b) the operator/owner's management of the airworthiness of the aircraft is effective,
  - (c) the approvals and licenses granted to organisations and persons continue to be applied in a consistent manner to achieve the required standards.

A physical inspection of the aircraft is necessary during each ACAM survey (ramp or in-depth).

2. Sample product surveys of aircraft include:
  - (a) in-depth surveys carried out during extensive maintenance that fully encompass selected aspects of an aircraft's airworthiness,
  - (b) ramp surveys carried out during aircraft operations to monitor the apparent condition of an aircraft's airworthiness.
3. When performing a ramp survey, the inspector(s) should make all possible efforts to avoid an unreasonable delay of the aircraft inspected.
4. The further information on 'KEY RISK ELEMENTS' can be found in Appendix III to GM1 M.B.303(b).

**AMC2 M.B.303(b) Aircraft continuing airworthiness monitoring**

**IN-DEPTH SURVEY**

1. An ACAM in-depth survey is a sample inspection of the key risk elements (KREs) and should be performed during scheduled/extensive maintenance. Appendix III to GM1 M.B.303(b) provides guidance on KREs that can be used for planning and/or analysis of the inspections.
2. The survey should be a 'deep cut' through the elements or systems selected.
3. The record of an ACAM inspection should identify which KREs were inspected.

**AMC3 M.B.303(b) Aircraft continuing airworthiness monitoring**

**KEY RISK ELEMENTS**

1. The following KREs should be used for aircraft continuing airworthiness monitoring:
  - (a) Type design and changes to type design
  - (b) Airworthiness limitations
  - (c) Airworthiness Directives
  - (d) Aircraft documents
  - (e) Flight Manual
  - (f) Mass & Balance
  - (g) Markings & placards
  - (h) Operational requirements
  - (i) Defect management
  - (j) Aircraft Maintenance Programme
  - (k) Component control
  - (l) Repairs
  - (m) Records
2. These KREs and their detailed components should be adapted to the complexity of the aircraft type being surveyed by retaining only those items that are applicable and relevant for the particular aircraft type.

3. The further information regarding 'KEY RISK ELEMENTS' can be found in Appendix III to GM1 M.B.303(b).

**GM1 M.B.303(b) Aircraft continuing airworthiness monitoring**

**KEY RISK ELEMENTS**

The KREs define the scope of continuing airworthiness. The list of KREs is intended to provide the basis for planning and control of the ACAM survey programme. It will ensure that the programme covers all aspects of continuing airworthiness. While it is not required to cover all KREs during a given inspection, the ACAM survey programme needs to ensure that there is no omission, i.e. certain KRE are never inspected.

The further information on 'KEY RISK ELEMENTS' can be found in Appendix III to GM1 M.B.303(b).

**AMC M.B.303(c) Aircraft continuing airworthiness monitoring**

Each competent authority should create an annual programme of surveys, selecting aircraft and/or operators depending on local knowledge of the maintenance environment, operating conditions, airworthiness standards and past surveillance experience. The programme should be used to identify the operator/fleet/aircraft, which are causing the greatest concern.

**SUBPART D — MAINTENANCE STANDARDS**

To be developed as appropriate.

**SUBPART E — COMPONENTS**

To be developed as appropriate.

**SUBPART F — MAINTENANCE ORGANISATION**

**AMC M.B.602(a) Initial approval**

1. 'Formally indicate in writing' means that an EASA Form 4 (Appendix X to AMC M.B.602(a) and AMC M.B.702(a)) should be used for this activity. With the exception of the accountable manager, an EASA Form 4 should be completed for each person nominated to hold a position required by M.A.606(b).
2. In the case of the accountable manager approval of the maintenance organisation manual containing the accountable manager's signed commitment statement constitutes formal acceptance.

**AMC M.B.602(b) Initial approval**

The competent authority should indicate approval of the maintenance organisation manual in writing.

**AMC M.B.602(c) Initial approval**

1. The competent authority should determine by whom, and how the audit shall be conducted. For example, it will be necessary to determine whether one large team audit or a short series of small team audits or a long series of single man audits are most appropriate for the particular situation.
2. The audit may be carried out on a product line type basis. For example, in the case of an organisation with Socata TB20 and Piper PA28 ratings, the audit is concentrated on one type only for a full compliance check. Dependent upon the result, the second type may only require a sample check that should at least cover the activities identified as weak for the first type.
3. The competent authority auditing surveyor should always ensure that he/she is accompanied throughout the audit by a senior technical member of the organisation. The reason for being accompanied is to ensure the organisation is fully aware of any findings during the audit.
4. The auditing surveyor should inform the senior technical member of the organisation at the end of the audit visit on all findings made during the audit.

**AMC M.B.602(e) Initial approval**

1. Findings should be recorded on an audit report form with a provisional categorisation as a level 1 or 2. Subsequent to the audit visit that identified the particular findings, the competent authority should review the provisional finding levels, adjusting them if necessary and change the categorisation from 'provisional' to 'confirmed'.
2. All findings should be confirmed in writing to the applicant organisation within 2 weeks of the audit visit.
3. There may be occasions when the competent authority finds situations in the applicant's organisation on which it is unsure about compliance. In this case, the organisation should be informed about possible non-compliance at the time and the fact that the situation will be reviewed within the competent authority before a decision is made. If the review concludes that there is no finding then a verbal confirmation to the organisation will suffice.

**AMC M.B.602(f) Initial approval**

1. The audit report should be made on an EASA Form 6F (see appendix VI).

2. A quality review of the EASA Form 6F audit report should be carried out by a competent independent person nominated by the competent authority. The review should take into account the relevant paragraphs of M.A. Subpart F, the categorisation of finding levels and the closure action taken. Satisfactory review of the audit form should be indicated by a signature on the EASA Form 6F.

**AMC M.B.602(g) Initial approval**

The audit reports should include the date each finding was cleared together with reference to the competent authority report or letter that confirmed the clearance.

**AMC M.B.603(a) Issue of approval**

1. For approvals involving more than one competent authority, the approval should be granted in conjunction with the competent authorities of the Member States in whose territories the other maintenance organisation facilities are located. For practical reasons the initial approval should be granted on the basis of a joint audit visit by the approving competent authority and competent authorities of the Member States in whose territories the other maintenance organisation facilities are located. Audits related to the continuation of the approval should be delegated to the competent authorities of the Member States in whose territories the other maintenance organisation facilities are located. The resulting audit form and recommendation should then be submitted to the approving competent authority.
2. The approval should be based upon the organisational capability relative to M.A. Subpart F compliance and not limited by reference to individual EASA certificated products.

For example, if the organisation is capable of maintaining within the limitation of M.A. Subpart F the Cessna 100 series aircraft the approval schedule should state A2 Cessna 100 series and not Cessna 172RG which is a particular designator for one of many Cessna 100 series.

**3. Special case for ELA1 aircraft:**

In order to promote standardisation, for this category of aircraft the following approach is recommended:

- Possible ratings to be endorsed in EASA Form 3:
  - ELA1 sailplanes;
  - ELA1 powered sailplanes and ELA1 aeroplanes;
  - ELA1 balloons;
  - ELA1 airships.
- Before endorsing any of those ratings (for example, ELA1 sailplanes) in EASA Form 3, the competent authority should audit that the organisation is capable of maintaining at least one aircraft type (for example, one type of sailplanes within the ELA1 category), including the availability of the necessary facilities, equipment, tooling, material, maintenance data, and certifying staff.
- It is acceptable that the detailed scope of work in the Maintenance Organisation Manual (MOM) contains the same ratings endorsed in EASA Form 3 (for example, ELA1 sailplanes), without a need to further limit them. However, the maintenance organisation will only be able to maintain a certain aircraft type when all the necessary facilities, equipment, tooling, material, maintenance data, and certifying staff are available.



**AMC M.B.603(c) Issue of approval**

The numeric sequence of the approval reference should be unique to the particular approved maintenance organisation.

**AMC M.B.604(b) Continuing oversight**

1. Where the competent authority has decided that a series of audit visits are necessary to arrive at a complete audit of an approved maintenance organisation, the program should indicate which aspects of the approval will be covered on each visit.
2. It is recommended that part of an audit concentrates on the organisations internal self monitoring reports produced by the organisational review to determine if the organisation is identifying and correcting its problems.
3. At the successful conclusion of the audit(s) including verification of the manual, an audit report form should be completed by the auditing surveyor including all recorded findings, closure actions and recommendation. An EASA Form 6F should be used for this activity.
4. Credit may be claimed by the competent authority surveyor(s) for specific item audits completed during the preceding 23-month period subject to four conditions:
  - (a) the specific item audit should be the same as that required by M.A. Subpart F latest amendment, and
  - (b) there should be satisfactory evidence on record that such specific item audits were carried out and that all corrective actions have been taken, and
  - (c) the competent authority surveyor(s) should be satisfied that there is no reason to believe standards have deteriorated in respect of those specific item audits being granted a back credit;
  - (d) the specific item audit being granted a back credit should be audited not later than 24 months after the last audit of the item.
5. When performing the oversight of organisations that hold both M.A. Subpart F and M.A. Subpart G approvals, the competent authority should arrange the audits to cover both approvals avoiding duplicated visit of a particular area.

**AMC M.B.605(a)(1) Findings**

For a level 1 finding it may be necessary for the competent authority to ensure that further maintenance and re-certification of all affected products is accomplished, dependent upon the nature of the finding.

**AMC M.B.606 Changes**

1. Changes in nominated persons.

The competent authority should have adequate control over any changes to personnel specified in M.A.606(a) and (b). Such changes will require an amendment to the manual.
2. It is recommended that a simple manual status sheet is maintained which contains information on when an amendment was received by the competent authority and when it was approved.
3. The competent authority should define the minor amendments to the manual which may be incorporated through indirect approval. In this case a procedure should be stated in the amendment section of the maintenance organisation manual.

Changes notified in accordance with M.A.617 are not considered minor.

For all cases other than minor, the applicable part(s) of the EASA Form 6F should be used for the change.

4. The approved maintenance organisation should submit each manual amendment to the competent authority whether it be an amendment for competent authority approval or an indirectly approved amendment. Where the amendment requires competent authority approval, the competent authority when satisfied, should indicate its approval in writing. Where the amendment has been submitted under the indirect approval procedure the competent authority should acknowledge receipt in writing.

**SUBPART G — CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION**

**AMC M.B.701(a) Application**

1. The competent authority should not expect the documents listed in M.B.701(a) to be submitted in a completed state with the initial application for grant or change since each may require approval in its own right and may be subject to amendment as a result of competent authority assessment during the technical investigations. Draft documents should be submitted at the earliest opportunity so that investigation of the application can begin. Grant or change cannot be achieved until the competent authority is in possession of completed documents.
2. This information is required to enable the competent authority to conduct its investigation, to assess the volume of maintenance work necessary and the locations at which it will be accomplished.
3. The applicant should inform the competent authority where base and scheduled line maintenance is to take place and give details of any contracted maintenance which is in addition to that provided in response to M.A.201(h)2 or M.A.708(c).
4. At the time of application, the operator should have arrangements for all base and scheduled line maintenance in place for an appropriate period of time, as accepted to the competent authority. The operator should establish further arrangements in due course before the maintenance is due.

Base maintenance contracts for high-life time checks may be based on one time contracts, when the competent authority considers that this is compatible with the operator's fleet size.

**AMC M.B.702(a) Initial approval**

1. 'Formally indicate in writing' means that an EASA Form 4 (Appendix X to AMC M.B.602(a) and AMC M.B.702(a)) should be used for this activity. With the exception of the accountable manager, an EASA Form 4 should be completed for each person nominated to hold a position required by M.A.706(c), (d) and M.A.707.
2. In the case of the accountable manager, approval of the continuing airworthiness management exposition containing the accountable manager's signed commitment statement constitutes formal acceptance, once the authority has held a meeting with the accountable manager and is satisfied with its results.

**AMC M.B.702(b) Initial approval**

1. The competent authority should indicate approval of the continuing airworthiness management exposition in writing.
2. Contracts for sub-contracting continuing airworthiness management tasks by operators should be included in the continuing airworthiness organisation exposition. The competent authorities should verify that the standards set forth in AMC M.A.201(h)1 have been met when approving the exposition.
3. The competent authority while investigating the acceptability of the proposed subcontracted continuing airworthiness management tasks arrangements will take into account, in the subcontracted organisation, all other such contracts that are in place irrespective of state of registry in terms of sufficiency of resources, expertise, management structure, facilities and liaison between the contracting continuing airworthiness management organisation, the

subcontracted organisation and where applicable contracted Part-145 maintenance organisation(s).

**AMC M.B.702(c) Initial approval**

1. The competent authority should determine by whom, and how the audit shall be conducted. For example, it will be necessary to determine whether one large team audit or a short series of small team audits or a long series of single man audits are most appropriate for the particular situation.
2. The audit may be carried out on a product line type basis. For example, in the case of an organisation with Airbus A320 and Airbus A310 ratings, the audit is concentrated on one type only for a full compliance check. Dependent upon the result, the second type may only require a sample check that should at least cover the activities identified as weak for the first type.
3. When determining the scope of the audit and which activities of the organisation will be assessed during the audit, the privileges of the approved organisation should be taken into account, e.g. approval to carry out airworthiness reviews.
4. The competent authority auditing surveyor should always ensure that he/she is accompanied throughout the audit by a senior technical member of the organisation. Normally this is the quality manager. The reason for being accompanied is to ensure the organisation is fully aware of any findings during the audit.
5. The auditing surveyor should inform the senior technical member of the organisation at the end of the audit visit on all findings made during the audit.

**AMC M.B.702(e) Initial approval**

1. Findings should be recorded on an audit report form with a provisional categorisation as a level 1 or 2. Subsequent to the audit visit that identified the particular findings, the competent authority should review the provisional finding levels, adjusting them if necessary and change the categorisation from 'provisional' to 'confirmed'.
2. All findings should be confirmed in writing to the applicant organisation within 2 weeks of the audit visit.
3. There may be occasions when the competent authority finds situations in the applicant's organisation on which it is unsure about compliance. In this case, the organisation should be informed about possible non-compliance at the time and the fact that the situation will be reviewed within the competent authority before a decision is made. If the review concludes that there is no finding then a verbal confirmation to the organisation will suffice.

**AMC M.B.702(f) Initial approval**

1. The audit report form should be the EASA Form 13 (Appendix VII).
2. A quality review of the EASA Form 13 audit report should be carried out by a competent independent person nominated by the competent authority. The review should take into account the relevant paragraphs of M.A. Subpart G, the categorisation of finding levels and the closure action taken. Satisfactory review of the audit form should be indicated by a signature on the EASA Form 13.

**AMC M.B.702(g) Initial approval**

The audit reports should include the date each finding was cleared together with reference to the competent authority report or letter that confirmed the clearance.

**AMC M.B.703 Issue of approval**

The table shown for the Approval Schedule in EASA Form 14 includes a field designated as ‘Aircraft type/series/group’

The intention is to give maximum flexibility to the competent authority to customise the approval to a particular organisation.

Possible alternatives to be included in this field are the following:

- A specific type designation that is part of a type certificate, such as Airbus 340-211 or Cessna 172R.
- A type rating (or series) as listed in Part-66 Appendix I to AMC, which may be further subdivided, such as Boeing 737-600/700/800, Boeing 737-600, Cessna 172 Series.
- An aircraft group such as, for example, ‘all sailplanes and powered sailplanes’ or ‘Cessna single piston engined aircraft’ or ‘Group 3 aircraft’ (as defined in 66.A.5) or ‘aircraft below 2 730 kg MTOM’.

Reference to the engine type installed in the aircraft may or may not be included, as necessary.

It is important to note that the scope of work defined in EASA Form 14 is further limited to the one defined in the Continuing Airworthiness Management Exposition (CAME). It is this scope of work in the CAME which ultimately defines the approval of the organisation. As a consequence, it is possible for a competent authority to endorse in EASA Form 14, for example, a scope of work for Group 3 aircraft while the detailed scope of work defined in the CAME does not include all Group 3 aircraft.

Nevertheless, in all cases, the competent authority should be satisfied that the organisation has the capability to manage the types/groups/series endorsed in the EASA Form 14.

Since the activities linked to continuing airworthiness management are mainly process-oriented rather than facility/tooling-oriented, changes to the detailed scope of work defined in the CAME (either directly or through a capability list), within the limits already included in EASA Form 14, may be considered as not affecting the approval and not subject to M.A.713. As a consequence, for these changes the competent authority may allow the use by the CAMO of the indirect approval procedure defined in M.A.704(c).

In the example mentioned above, before endorsing the Group 3 in EASA Form 14 for the first time, the competent authority should make sure that the organisation is capable of managing this category of aircraft as a whole. In particular, the competent authority should ensure that Baseline/Generic Maintenance Programmes (see M.A.709) or individual maintenance programmes (for contracted customers) are available for all the aircraft which are intended to be initially included in the scope of work detailed in the CAME. Later on, if changes need to be introduced in the detailed scope of work detailed in the CAME to include new aircraft types (within Group 3), this may be done by the CAMO through the use of the indirect approval procedure.

Since, as mentioned above, the competent authority should make sure that the organisation is capable of managing the requested category as a whole, it is not reasonable to grant a full Group 3 approval based on an intended scope of work which is limited to, for example, a Cessna 172 aircraft. However, it may be reasonable to grant such full Group 3 approval, after showing appropriate capability, for an intended scope of work covering several aircraft types or series of different complexity and which are representative of the full Group 3.

**Special case for ELA1 aircraft:**

In order to promote standardisation, for this category of aircraft the following approach is recommended:

- Possible ratings to be endorsed in EASA Form 14:
  - ELA1 sailplanes;
  - ELA1 powered sailplanes and ELA1 aeroplanes;
  - ELA1 balloons;
  - ELA1 airships.
- Before endorsing any of those ratings (for example, ELA1 sailplanes) in EASA Form 14, the competent authority should audit that the organisation is capable of managing at least one aircraft type (for example, one type of sailplanes within the ELA1 category), including the availability of the necessary facilities, data, maintenance programmes, and staff.
- It is acceptable that the detailed scope of work in the CAME contains the same ratings endorsed in EASA Form 14 (for example, ELA1 sailplanes), without a need to further limit them. However, the CAMO will only be able to manage a certain aircraft type when all the necessary facilities, data, maintenance programmes and staff are available.

**AMC M.B.703(a) Issue of approval**

For approvals involving more than one competent authority, the approval should be granted in conjunction with the competent authority of the Member States in whose territories the other continuing airworthiness management organisation facilities are located. For practical reasons the initial approval should be granted on the basis of a joint audit visit by the approving competent authority and competent authority of the Member States in whose territories the other continuing airworthiness management organisation facilities are located. Audits related to the renewal of the approval should be delegated to the competent authority of the Member States in whose territories the other continuing airworthiness management organisation facilities are located. The resulting audit form and recommendation should then be submitted to the approving competent authority.

**AMC M.B.703(c) Issue of approval**

The numeric sequence should be unique to the particular CAMO.

**AMC M.B.704(b) Continuing oversight**

1. Where the competent authority has decided that a series of audit visits are necessary to arrive at a complete audit of an approved continuing airworthiness management organisation, the program should indicate which aspects of the approval will be covered on each visit.
2. It is recommended that part of an audit concentrates on two ongoing aspects of the M.A. Subpart G approval, namely the organisations internal self monitoring quality reports produced by the quality monitoring personnel to determine if the organisation is identifying and correcting its problems and secondly the number of concessions granted by the quality manager.
3. At the successful conclusion of the audit(s) including verification of the exposition, an audit report form should be completed by the auditing surveyor including all recorded findings, closure actions and recommendation. An EASA Form 13 should be used for this activity.
4. Credit may be claimed by the competent authority Surveyor(s) for specific item audits completed during the preceding 23 month period subject to four conditions:

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART G — CONTINUING AIRWORTHINESS MANAGEMENT ORGANISATION**

- (a) the specific item audit should be the same as that required by M.A. Subpart G latest amendment, and
  - (b) there should be satisfactory evidence on record that such specific item audits were carried out and that all corrective actions have been taken, and
  - (c) the competent authority surveyor(s) should be satisfied that there is no reason to believe standards have deteriorated in respect of those specific item audits being granted a back credit;
  - (d) the specific item audit being granted a back credit should be audited not later than 24 months after the last audit of the item.
5. When an operator sub-contracts continuing airworthiness management tasks all sub-contracted organisations should also be audited by the competent authority of operator at periods not exceeding 24 months (credits per paragraph 4 above are permitted) to ensure they fully comply with M.A. Subpart G. For these audits, the competent authority auditing surveyor should always ensure that he/she is accompanied throughout the audit by a senior technical member of the operator. All findings should be sent to and corrected by the operator.
  6. When performing the oversight of organisations that hold both M.A. Subpart F and M.A. Subpart G approvals, the competent authority should arrange the audits to cover both approvals avoiding duplicated visit of a particular area.

**AMC M.B.705(a)(1) Findings**

1. For a level 1 finding the competent authority should inform the owner/operator and the competent authority of any potentially affected aircraft in order that corrective action can be taken to ensure possible unsafe conditions on these aircraft are corrected before further flight.
2. Furthermore, a level 1 finding could lead to a non-compliance to be found on an aircraft as specified in M.B. 303(g). In this case, proper action as specified in M.B.303(h) would be taken.

**AMC M.B.706 Changes**

1. Changes in nominated persons. The competent authority should have adequate control over any changes to the personnel specified in M.A.706(a), (c), (d) and (i). Such changes will require an amendment to the exposition.
2. It is recommended that a simple exposition status sheet is maintained which contains information on when an amendment was received by the competent authority and when it was approved.
3. The competent authority should define the minor amendments to the exposition which may be incorporated through indirect approval. In this case a procedure should be stated in the amendment section of the approved continuing airworthiness management exposition.
4. Changes notified in accordance with M.A.713 are not considered minor. For all cases other than minor, the applicable part(s) of the EASA Form 13 should be used for the change.
5. The approved continuing airworthiness management organisation should submit each exposition amendment to the competent authority whether it be an amendment for competent authority approval or an indirectly approved amendment. Where the amendment requires competent authority approval, the competent authority when satisfied, should indicate its approval in writing. Where the amendment has been submitted under the indirect approval procedure the competent authority should acknowledge receipt in writing.

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART H — CERTIFICATE OF RELEASE TO SERVICE — CRS**

**SUBPART H — CERTIFICATE OF RELEASE TO SERVICE — CRS**

To be developed as appropriate.



**SUBPART I — AIRWORTHINESS REVIEW CERTIFICATE**

**AMC M.B.901 Assessment of recommendations**

1. The result of the verification and the investigation of a recommendation should be sent to the applicant within 30 days. If corrective action has been requested before the issuance of an airworthiness review certificate, the competent authority may decide a further period for the assessment of the requested corrective action.
2. The verification of the compliance statement required by M.B.901 does not mean repeating the airworthiness review itself. However the competent authority should verify that the CAMO has carried out a complete and accurate assessment of the airworthiness of the aircraft.
3. Depending on the content of the recommendation, the history of the particular aircraft, and the knowledge of the CAMO or M.A.901(g) certifying staff making the recommendation in terms of experience, number and correction of findings and previous recommendations the extent of the investigation will vary. Therefore, whenever possible the person carrying out the investigation should be involved in the oversight of the CAMO making the recommendation.
4. In some cases, the inspector may decide that it is necessary to organise:
  - a physical survey of the aircraft, or;
  - a full or partial airworthiness review.

In this case, the inspector should inform the CAMO or M.A.901(g) certifying staff making the recommendation with sufficient notice so that it may organise itself according to M.A.901(j).

Furthermore, this part of the investigation should be carried out by appropriate airworthiness review staff in accordance with M.B.902(b).

5. Only when satisfied the aircraft is airworthy, should the inspector issue an airworthiness review certificate.

**AMC M.B.902(b) Airworthiness review by the competent authority**

1. A person qualified in accordance with AMC M.B.102(c) subparagraph 1.5 should be considered as holding the equivalent to an aeronautical degree.
2. 'experience in continuing airworthiness' means any appropriate combination of experience in tasks related to aircraft maintenance and/or continuing airworthiness management (engineering) and/or surveillance of such tasks.
3. An appropriate licence in compliance with Annex III (Part-66) is a category B or C licence in the subcategory of the aircraft reviewed. It is not necessary to satisfy the recent experience requirements of Part 66 at the time of the review or to hold the type rating on the particular aircraft.
4. To hold a position with appropriate responsibilities means the airworthiness review staff should have a position within the competent authority that authorises that person to sign on behalf that competent authority.
5. A person in the competent authority carrying out airworthiness reviews or airworthiness certificate renewal inspections in a Member State, prior to the date of entry into force of Part-M should be considered as complying with M.B.902(b).

**AMC M.B.902(b)(1) Airworthiness review by the competent authority**

For all aircraft used in commercial air transport and any other aircraft, other than balloons, above 2 730 kg MTOM, formal aeronautical maintenance training means training (internal or external) supported by evidence on the following subjects:

- Relevant parts of continuing airworthiness regulations.
- Relevant parts of operational requirements and procedures, if applicable.
- Knowledge of the internal procedures for continuing airworthiness.
- Knowledge of a relevant sample of the type(s) of aircraft gained through a formalised training course. These courses should be at least at a level equivalent to Part-66 Appendix III Level 1 General Familiarisation.

‘Relevant sample’ means that these courses should cover typical systems embodied in those aircraft being within the scope of approval.

**AMC M.B.902(b)(2) Airworthiness review by the competent authority**

For all balloons and any other aircraft of 2 730 kg MTOM and below, not used in commercial air transport, appropriate aeronautical maintenance training means demonstrated knowledge of the following subjects:

- Relevant parts of continuing airworthiness regulations.
- Relevant parts of operational requirements and procedures, if applicable.
- Knowledge of the internal procedures for continuing airworthiness.
- Knowledge of a relevant sample of the type(s) of aircraft gained through training and/or work experience. Such knowledge should be at least at a level equivalent to Part-66 Appendix III Level 1 General Familiarisation.

‘Relevant sample’ means that these courses should cover typical systems embodied in those aircraft being within the scope of approval.

This knowledge may be demonstrated by documented evidence or by an assessment performed by the competent authority. This assessment should be recorded.

**AMC M.B.902(c) Airworthiness review by the competent authority**

**The minimum content of the airworthiness review staff record should be:**

- Name,
- Date of Birth,
- Basic Education,
- Experience,
- Aeronautical Degree and/or Part-66-qualification,
- Initial Training received,
- Type Training received,
- Continuation Training received,

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**SUBPART I — AIRWORTHINESS REVIEW CERTIFICATE**

- Experience in continuing airworthiness and within the organisation,
- Responsibilities of current job.

**AMC AND GM TO APPENDICES TO PART-M**

**AMC to Appendix II to Part-M Use of the EASA Form 1 for maintenance**

**1. The following formats of an issued EASA Form 1 or equivalent certificate are acceptable:**

- A paper certificate bearing a signature (both originals and copies are accepted);
- A paper certificate generated from an electronic system (printed from electronically stored data) when complying with the following subparagraph 2;
- An electronic EASA Form 1 or equivalent when complying with the following subparagraph 2.

**2. Electronic signature and electronic exchange of the EASA Form 1**

a) Submission to the competent authority

Any organisation intending to implement an electronic signature procedure to issue EASA Form 1 and/or to exchange electronically such data contained on the EASA Form 1, should document it and submit it to the competent authority as part of the documents attached to its exposition.

b) Characteristics of the electronic system generating the EASA Form 1

The electronic system should:

- guarantee secure access for each certifying staff;
- ensure integrity and accuracy of the data certified by the signature on the form and be able to show evidence of the authenticity of the EASA Form 1 (recording and record keeping) with suitable security, safeguards and backups;
- be active only at the location where the part is being released with an EASA Form 1;
- not permit to sign a blank form;
- provide a high degree of assurance that the data has not been modified after signature (if modification is necessary after issuance, i.e., re-certification of a part, a new form with a new number and reference to the initial issuance should be made).
- provide for a 'personal' electronic signature, identifying the signatory. The signature should be generated only in presence of the signatory.

An electronic signature means data in electronic form which is attached to or logically associated with other electronic data and which serves as a method of authentication and should meet the following criteria:

- it is uniquely linked to the signatory;
- it is capable of identifying the signatory;
- it is created using means that the signatory can maintain under his sole control.

This electronic signature should be an electronically generated value based on a cryptographic algorithm and appended to data in a way to enable the verification of the data's source and integrity.

Organisation(s) are reminded that additional national and/or European requirements may need to be satisfied when operating electronic systems. 'Directive 1999/93/EC of the European Parliament and of the

Council of 13 December 1999 on a Community framework for electronic signatures', as last amended, may constitute a reference.

The electronic system should be based on a policy and management structure (confidentiality, integrity and availability), such as:

- Administrators, signatories;
- Scope of authorisation, rights;
- Password and secure access, authentication, protections, confidentiality;
- Track changes;
- Minimum blocks to be completed, completeness of information;
- Archives;
- etc.

The electronic system generating the EASA Form 1 may contain additional data such as;

- Manufacturer code;
- Customer identification code;
- Workshop report;
- Inspection results;
- etc.

c) Characteristics of the EASA Form 1 generated from the electronic system.

To facilitate understanding and acceptance of the EASA Form 1 released with an electronic signature, the following statement should be in Block 14b: 'Electronic Signature on File'.

In addition to this statement, it is accepted to print or display a signature in any form, such as a representation of the hand-written signature of the person signing (i.e. scanned signature) or a representation of their name.

When printing the electronic form, the EASA Form 1 should meet the general format as specified in Appendix II to Part-M. A watermark-type 'PRINTED FROM ELECTRONIC FILE' should be printed on the document.

When the electronic file contains a hyperlink to data required to determine the airworthiness of the item(s), the data associated to the hyperlink, when printed, should be in a legible format and be identified as a reference from the EASA Form 1.

Additional information not required by the EASA Form 1 completion instructions may be added to the printed copies of EASA Form 1, as long as the additional data do not prevent a person from filling out, issuing, printing, or reading any portion of the EASA Form 1. This additional data should be provided only in block 12 unless it is necessary to include it in another block to clarify the content of that block.

d) Electronic exchange of the electronic EASA Form 1

The electronic exchange of the electronic EASA Form 1 should be accomplished on a voluntary basis. Both parties (issuer and receiver) should agree on electronic transfer of the EASA Form 1.

For that purpose, the exchange needs to include:

- all data of the EASA Form 1, including referenced data required by the EASA Form 1 completion instructions;
- all data required for authentication of the EASA Form 1.
- In addition, the exchange may include:
  - data necessary for the electronic format;
  - additional data not required by the EASA Form 1 completion instructions, such as manufacturer code, customer identification code.
- The system used for the exchange of the electronic EASA Form 1 should provide:
  - A high level of digital security; the data should be protected, not altered or not corrupted;
  - Traceability of data back to its source.

Trading partners wishing to exchange EASA Form 1 electronically should do so in accordance with the means of compliance stated in this document. It is recommended that they use an established, common, industry method such as Air Transport Association (ATA) Spec 2000 Chapter 16.

The organisation(s) are reminded that additional national and/or European requirements may need to be satisfied when operating the electronic exchange of the electronic EASA Form 1.

The receiver should be capable of regenerating the EASA Form 1 from the received data without alteration; if not, the system should revert back to the paper system.

When the receiver needs to print the electronic form, refer to subparagraph c) here above.

#### **GM to Appendix II to Part-M Use of the EASA Form 1 for maintenance**

##### **EASA Form 1 Block 12 'Remarks'**

Examples of data to be entered in this block as appropriate:

- Maintenance documentation used, including the revision status, for all work performed and not limited to the entry made in block 11. A statement such as 'in accordance with the CMM' is not acceptable.
- NDT methods with appropriate documentation used when relevant.
- Compliance with airworthiness directives or service bulletins.
- Repairs carried out.
- Modifications carried out.
- Replacement parts installed.
- Life-limited parts status.
- Shelf life limitations.
- Deviations from the customer work order.
- Release statements to satisfy a foreign Civil Aviation Authority maintenance requirement.
- Information needed to support shipment with shortages or re-assembly after delivery.

- References to aid traceability, such as batch numbers.

**AMC to Appendix V to Part-M Maintenance Organisation Approval referred to in Annex I (Part-M) Subpart F**

The following fields on page 2 'Maintenance Organisation Approval Schedule' of the maintenance organisation approval certificate should be completed as follows:

- Date of original issue: It refers to the date of the original issue of the maintenance organisation manual.
- Date of last revision approved: It refers to the date of the last revision of the maintenance organisation manual affecting the content of the certificate. Changes to the maintenance organisation manual which do not affect the content of the certificate do not require the reissuance of the certificate.
- Revision No: It refers to the revision No of the last revision of the maintenance organisation manual affecting the content of the certificate. Changes to the maintenance organisation manual which do not affect the content of the certificate do not require the reissuance of the certificate.

**AMC to Appendix VI to Part-M Continuing Airworthiness Management Organisation Approval referred to in Annex I (Part-M) Subpart G**

The following fields on page 2 'Continuing Airworthiness Management Organisation Approval Schedule' of the continuing airworthiness management organisation approval certificate should be completed as follows:

- Date of original issue: It refers to the date of the original issue of the continuing airworthiness management exposition
- Date of last revision: It refers to the date of the last revision of the continuing airworthiness management exposition affecting the content of the certificate. Changes to the continuing airworthiness management exposition which do not affect the content of the certificate do not require the reissuance of the certificate.
- Revision No: It refers to the revision No of the last revision of the continuing airworthiness management exposition affecting the content of the certificate. Changes to the continuing airworthiness management exposition which do not affect the content of the certificate do not require the reissuance of the certificate.

**AMC to Appendix VII 'Complex Maintenance Tasks'**

The sentence 'suitably approved or authorised welder' contained in Appendix VII, paragraph 3(c), means that the qualification should meet an officially recognised standard or, otherwise, should be accepted by the competent authority.

**AMC to Appendix VIII 'Limited Pilot Owner Maintenance'**

1. The lists here below specify items that can be expected to be completed by an owner who holds a current and valid pilot licence for the aircraft type involved and who meets the competence and responsibility requirements of Appendix VIII to Part-M.

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**AMC AND GM TO APPENDICES TO PART-M**

2. The list of tasks may not address in a detailed manner the specific needs of the various aircraft categories. In addition, the development of technology and the nature of the operations undertaken by these categories of aircraft cannot be always adequately considered.
3. Therefore, the following lists are considered to be the representative scope of limited Pilot-owner maintenance referred to in M.A.803 and Appendix VIII:
  - Part A applies to aeroplanes;
  - Part B applies to rotorcraft;
  - Part C applies to sailplanes and powered sailplanes;
  - Part D applies to balloons and airships.
4. Inspection tasks/checks of any periodicity included in an approved maintenance programme can be carried out providing that the specified tasks are included in the generic lists of Parts A to D of this AMC and remains compliant with Part M Appendix VIII basic principles.

The content of periodic inspections/checks as well as their periodicity is not regulated or standardised in an aviation specification. It is the decision of the manufacturer/Type Certificate Holder (TCH) to recommend a schedule for each specific type of inspection/check.

For an inspection/check with the same periodicity for different TCHs, the content may differ, and in some cases may be critically safety-related and may need the use of special tools or knowledge and thus would not qualify for Pilot-owner maintenance. Therefore, the maintenance carried out by the Pilot-owner cannot be generalised to specific inspections such as 50 Hrs, 100 Hrs or 6 Month periodicity.

The Inspections to be carried out are limited to those areas and tasks listed in this AMC to Appendix VIII; this allows flexibility in the development of the maintenance programme and does not limit the inspection to certain specific periodic inspections. A 50 Hrs/6 Month periodic inspection for a fixed wing aeroplane as well as the one-year inspection on a glider may normally be eligible for Pilot-owner maintenance.

**TABLES**

**Note:** Tasks in Part A or Part B shown with \*\* exclude IFR operations following Pilot-owner maintenance. For these aircraft to operate under IFR operations, these tasks should be released by an appropriate licensed engineer.



**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**AMC AND GM TO APPENDICES TO PART-M**

**Part A/PILOT-OWNER MAINTENANCE TASKS for POWERED AIRCRAFT (AEROPLANES)**

ATA	Area	Task	Aeroplanes ≤2 730kg
09	Towing	Tow release unit and tow cable retraction mechanism – Cleaning, lubrication and tow cable replacement (including weak links).	Yes
		Mirror –Installation and replacement of mirrors.	Yes
11	Placards	Placards, Markings – Installation and renewal of placards and markings required by AFM and AMM.	Yes
12	Servicing	Lubrication – Those items not requiring a disassembly other than of non-structural items such as cover plates, cowlings and fairings.	Yes
20	Standard Practices	Safety Wiring – Replacement of defective safety wiring or cotter keys, excluding those in engine controls, transmission controls and flight control systems.	Yes
		Simple Non-Structural Standard Fasteners – Replacement and adjustment, excluding the replacement of receptacles and anchor nuts requiring riveting.	Yes
21	Air Conditioning	Replacement of flexible hoses and ducts.	Yes
23	Communication.	Communication devices – Remove and replace self contained, instrument panel mount communication devices with quick disconnect connectors, excluding IFR operations.	Yes**
24	Electrical power	Batteries – Replacement and servicing, excluding servicing of Ni-Cd batteries and IFR operations.	Yes**
		Wiring – Repairing broken circuits in non critical equipment, excluding ignition system, primary generating system and required communication, navigation system and primary flight instruments.	Yes
		Bonding – Replacement of broken bonding cable.	Yes
		Fuses – Replacement with the correct rating.	Yes
25	Equipment	Safety Belts – Replacement of safety belts and harnesses excluding belts fitted with airbag systems.	Yes

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**AMC AND GM TO APPENDICES TO PART-M**

		Seats – Replacement of seats or seat parts not involving disassembly of any primary structure or control system.	Yes
		Non-essential instruments and/or equipment - Replacement of self contained, instrument panel mount equipment with quick disconnect connectors.	Yes
		Oxygen System – Replacement of portable oxygen bottles and systems in approved mountings, excluding permanently installed bottles and systems.	Yes
		ELT – Removal/Reinstallation.	Yes
27	Flight controls	Removal or reinstallation of co-pilot control column and rudder pedals where provision for quick disconnect is made by design.	Yes
28	Fuel System	Fuel Filter elements – Cleaning and/or replacement.	Yes
30	Ice and Rain Protection	Windscreen Wiper – Replacement of wiper blade.	Yes
31	Instruments	Instrument Panel – Removal and reinstallation provided this it is a design feature with quick disconnect connectors, excluding IFR operations.	Yes**
		Pitot Static System – Simple sense and leak check, excluding IFR operations.	Yes**
		Drainage – Drainage of water drainage traps or filters within the Pitot Static system excluding IFR operations.	Yes**
		Instruments – Check for legibility of markings and those readings are consistent with ambient conditions.	Yes
32	Landing Gear	Wheels – Removal, replacement and servicing, including replacement of wheel bearings and lubrication.	Yes
		Servicing – Replenishment of hydraulic fluid	Yes
		Shock Absorber – Replacement of elastic cords or rubber dampers.	Yes
		Shock Struts – Replenishment of oil or air.	Yes
		Skis – Changing between wheel and ski landing gear.	Yes
		Landing skids – Replacement of landing skids and skid shoes.	Yes
		Wheel fairings (spats) – Removal and reinstallation.	Yes
		Mechanical brakes – Adjustment of simple cable operated systems.	Yes
		Brake – Replacement of worn brake pads.	Yes
33	Lights	Lights – Replacement of internal and external bulbs, filaments, reflectors and lenses.	Yes

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**AMC AND GM TO APPENDICES TO PART-M**

34	Navigation	Software – Updating self contained, instrument panel mount navigational software databases, excluding automatic flight control systems and transponders.	Yes
		Navigation devices – Removal and replacement of self contained, instrument panel mount navigation devices with quick disconnect connectors, excluding automatic flight control systems, transponders, primary flight control system and IFR operations.	Yes**
		Self contained data logger – Installation, data restoration.	Yes
51	Structure	Fabric patches – Simple patches extending over not more than one rib and not requiring rib stitching or removal of structural parts or control surfaces.	Yes
		Protective Coating – Applying preservative material or coatings where no disassembly of any primary structure or operating system is involved.	Yes
		Surface finish - Minor restoration where no disassembly of any primary structure or operating system is involved This includes application of signal coatings or thin foils as well as registration markings.	Yes
		Fairings – Simple repairs to non-structural fairings and cover plates which do not change the contour.	Yes
52	Doors and Hatches	Doors - Removal and reinstallation	Yes
53	Fuselage	Upholstery, furnishing – Minor repairs which do not require disassembly of primary structure or operating systems, or interfere with control systems.	Yes
56	Windows	Side Windows - Replacement if it does not require riveting, bonding or any special process	Yes
61	Propeller	Spinner – Removal and reinstallation.	Yes
71	Powerplant installation	Cowling – Removal and reinstallation not requiring removal of propeller or disconnection of flight controls.	Yes
		Induction System – Inspection and replacement of induction air filter.	Yes
72	Engine	Chip detectors – Removal, checking and reinstallation provided the chip detector is a self-sealing type and not electrically	Yes

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**AMC AND GM TO APPENDICES TO PART-M**

		indicated.	
73	Engine fuel	Strainer or Filter elements – Cleaning and/or replacement.	Yes
		Fuel - Mixing of required oil into fuel.	Yes
74	Ignition	Spark Plugs – Removal, cleaning, adjustment and reinstallation.	Yes
75	Cooling	Coolant - Replenishment of coolant fluid.	Yes
77	Engine Indicating	Engine Indicating – Removal and replacement of self contained, instrument panel mount indicators that have quick-release connectors and do not employ direct reading connections.	Yes
79	Oil System	Strainer or filter elements – Cleaning and/or replacement.	Yes
		Oil – Changing or replenishment of engine oil and gearbox fluid.	Yes

**Part B/PILOT-OWNER MAINTENANCE TASKS for ROTORCRAFT**

<b>ATA</b>	<b>Area</b>	<b>Task</b>	<b>Single Engine Rotorcraft  ≤2 730kg</b>
<b>11</b>	Placards	Placards, Markings – Installation and renewal of placards and markings required by AFM and AMM.	Yes
<b>12</b>	Servicing	Fuel, oil, hydraulic, de-iced and windshield liquid replenishment.	Yes
		Lubrication – Those items not requiring a disassembly other than of non-structural items such as cover plates, cowlings and fairings.	Yes
<b>20</b>	Standard Practices	Safety Wiring – Replacement of defective safety wiring or cotter keys, excluding those in engine controls, transmission controls and flight control systems.	Yes
		Simple non-structural standard fasteners – Replacement and adjustment, excluding latches and the replacement of receptacles and anchor nuts requiring riveting.	Yes

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**AMC AND GM TO APPENDICES TO PART-M**

<b>21</b>	Air Conditioning	Replacement of flexible hoses and ducts.	Yes
<b>23</b>	Communication	Communication devices – Remove and replace self contained, instrument panel mount communication devices with quick disconnect connectors, excluding IFR operations.	Yes**
<b>24</b>	Electrical power	Batteries – Replacement and servicing, excluding servicing of Ni-Cd batteries and IFR operations.	Yes**
		Wiring – Repairing broken circuits in noncritical equipment, excluding ignition system, primary generating system and required communication, navigation system and primary flight instruments.	Yes
		Bonding – Replacement of broken bonding cable excluding bonding on rotating parts and flying controls.	Yes
		Fuses – Replacement with the correct rating.	Yes
<b>25</b>	Equipment	Safety Belts - Replacement of safety belts and harnesses excluding belts fitted with airbag systems.	Yes
		Seats – Replacement of seats or seat parts not involving disassembly of any primary structure or control system excluding flight crew seats.	Yes
		Removal/installation of emergency flotation gears with quick disconnect connectors.	Yes
		Non-essential instruments and/or equipment - Replacement of self contained, instrument panel mount equipment with quick disconnect connectors.	Yes
		ELT - Removal/Reinstallation.	Yes
<b>30</b>	Ice and rain protection	Windshield wiper replacement	Yes
<b>31</b>	Instruments	Instrument Panel– Removal and reinstallation provided this it is a design feature with quick disconnect connectors, excluding IFR operations.	Yes**
		Pitot Static System – Simple sense and leak check, excluding IFR operations.	Yes**
		Drainage – Drainage of water drainage traps or filters within the	Yes**

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**AMC AND GM TO APPENDICES TO PART-M**

		Pitot Static system excluding IFR operations.	
		Instruments – Check for legibility of markings and those readings are consistent with ambient conditions.	Yes
<b>32</b>	Landing Gears	Wheels – Removal, replacement and servicing, including replacement of wheel bearings and lubrication.	Yes
		Replacement of skid wear shoes.	Yes
		Fit and remove snow landing pads.	Yes
		Servicing – Replenishment of hydraulic fluid.	Yes
		Brake – Replacement of worn brake pads.	Yes
<b>33</b>	Lights	Lights – replacement of internal and external bulbs, filaments, reflectors and lenses.	Yes
<b>34</b>	Navigation	Software – Updating self contained, instrument panel mount navigational software databases, excluding automatic flight control systems and transponders.	Yes
		Navigation devices – Remove and replace self contained, instrument panel mount navigation devices with quick disconnect connectors, excluding automatic flight control systems, transponders, primary flight control system and IFR operations.	Yes**
		Self contained data logger – Installation, data restoration.	Yes
<b>51</b>	Structure	Protective Coating – Applying preservative material or coatings where no disassembly of any primary structure or operating system is involved.	Yes
		Surface finish - Minor restoration where no disassembly of any primary structure or operating system is involved, excluding intervention on main and tail rotors. This includes application of signal coatings or thin foils as well as Registration markings.	Yes
		Fairings – Simple repairs to non-structural fairings and cover plates which do not change the contour.	Yes
<b>52</b>	Doors	Doors - Removal and reinstallation.	Yes
<b>53</b>	Fuselage	Upholstery, furnishing – Minor repairs which do not require disassembly of primary structure or operating systems, or	Yes

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**AMC AND GM TO APPENDICES TO PART-M**

		interfere with control systems.	
<b>56</b>	Windows	Side Windows - Replacement if it does not require riveting, bonding or any special process.	Yes
<b>62</b>	Main rotor	Removal/installation of main rotor blades that are designed for removal where special tools are not required (tail rotor blades excluded) limited to installation of the same blades previously removed refitted in the original position.	Yes
<b>63</b> <b>65</b>	Transmission	Chip detectors – Remove, check and replace provided the chip detector is a self-sealing type and not electrically indicated.	Yes
<b>67</b>	Flight control	Removal or reinstallation of co-pilot cyclic and collective controls and yaw pedals where provision for quick disconnect is made by design.	Yes
<b>71</b>	Powerplant installation	Cowlings - Removal and re-fitment.	Yes
<b>72</b>	Engine	Chip detectors –removal, checking and reinstallation provided the chip detector is a self sealing type and not electrically indicated.	Yes
<b>79</b>	Oil System	Filter elements – Replacement, provided that the element is of the “spin on/off” type.	Yes
		Oil - Changing or replenishment of engine oil.	Yes

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**AMC AND GM TO APPENDICES TO PART-M**

**Part C/PILOT-OWNER MAINTENANCE TASKS for SAILPLANES AND POWERED SAILPLANES**

**Abbreviations applicable to this Part:**

- N/A not applicable for this category  
 SP sailplane  
 SSPS self-sustained powered sailplane  
 SLPS/TM self-launching powered sailplane/touring motorglider

ATA	Area	Task	SP	SSPS	SLPS/ TM
08	Weighing	Recalculation – Small changes of the Trim plan without needing a reweighing.	Yes	Yes	Yes
09	Towing	Tow release unit and tow cable retraction mechanism – Cleaning, lubrication and tow cable replacement (including weak links).	Yes	Yes	Yes
		Mirror - Installation and replacement of mirrors.	Yes	Yes	Yes
11	Placards	Placards, Markings – Installation and renewal of placards and markings required by AFM and AMM.	Yes	Yes	Yes
12	Servicing	Lubrication – Those items not requiring a disassembly other than of non-structural items such as cover plates, cowlings and fairings.	Yes	Yes	Yes
20	Standard Practices	Safety Wiring – Replacement of defective safety wiring or cotter keys, excluding those in engine controls, transmission controls and flight control systems.	Yes	Yes	Yes
		Simple Non-Structural Standard Fasteners – Replacement and adjustment, excluding the replacement of receptacles and anchor nuts requiring riveting.	Yes	Yes	Yes
		Free play – Measurement of the free play in the control system and the wing to fuselage attachment including minor adjustments by simple means provided by the manufacturer.	Yes	Yes	Yes
21	Air Conditioning	Replacement of flexible hoses and ducts.	Yes	Yes	Yes
23	Communication	Communication devices – Remove and replace self contained, instrument panel mount communication devices with quick disconnect connectors.	Yes	Yes	Yes



**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**AMC AND GM TO APPENDICES TO PART-M**

24	Electrical power	Batteries and solar panels – Replacement and servicing.	Yes	Yes	Yes
		Wiring - Installation of simple wiring connections to the existing wiring for additional non-required equipment such as electric variometers, flight computers but excluding required communication, navigation systems and engine wiring.	Yes	Yes	Yes
		Wiring – Repairing broken circuits in landing light and any other wiring for non-required equipment such as electrical variometers or flight computers, excluding ignition system, primary generating system and required communication, navigation system and primary flight instruments.	Yes	Yes	Yes
		Bonding – Replacement of broken bonding cable.	Yes	Yes	Yes
		Switches – This includes soldering and crimping of non-required equipment such as electrical variometers or flight computers, but excluding ignition system, primary generating system and required communication, navigation system and primary flight instruments.	Yes	Yes	Yes
		Fuses – Replacement with the correct rating.	Yes	Yes	Yes
25	Equipment	Safety Belts – Replacement of safety belt and harnesses.	Yes	Yes	Yes
		Seats – Replacement of seats or seat parts not involving disassembly of any primary structure or control system.	Yes	Yes	Yes
		Non-essential instruments and/or equipment - Replacement of self contained, instrument panel mount equipment with quick disconnect connectors.	Yes	Yes	Yes
		Removal and installation of non-required instruments and/or equipment.	Yes	Yes	Yes
		Wing Wiper, Cleaner – Servicing, removal and reinstallation not involving disassembly or modification of any primary structure, control.	Yes	Yes	Yes
		Static Probes – Removal or reinstallation of variometer static and total energy compensation probes.	Yes	Yes	Yes
		Oxygen System – Replacement of portable oxygen bottles and systems in approved mountings, excluding permanently installed bottles and systems.	Yes	Yes	Yes

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**AMC AND GM TO APPENDICES TO PART-M**

		Air Brake Chute – Installation and servicing	Yes	Yes	Yes
		ELT – Removal / Reinstallation.	Yes	Yes	Yes
26	Fire Protection	Fire Warning – Replacement of sensors and indicators.	N/A	Yes	Yes
27	Flight Control	Gap Seals – Installation and servicing if it does not require complete flight control removal.	Yes	Yes	Yes
		Control System – Measurement of the control system travel without removing the control surfaces.	Yes	Yes	Yes
		Control Cables – Simple optical Inspection for Condition.	Yes	Yes	Yes
		Gas Dampener – Replacement of Gas Dampener in the Control or Air Brake System.	Yes	Yes	Yes
		Co-pilot stick and pedals - Removal or reinstallation where provision for quick disconnect is made by design.	Yes	Yes	Yes
28	Fuel System	Fuel lines – Replacement of prefabricated fuel lines fitted with self-sealing couplings.	N/A	Yes	NO
		Fuel Filter – Cleaning and/or replacement.	N/A	Yes	Yes
31	Instruments	Instrument Panel– Removal and reinstallation provided this is a design feature with quick disconnect, excluding IFR operations.	Yes	Yes	Yes
		Pitot Static System – Simple sense and leak check.	Yes	Yes	Yes
		Instrument Panel vibration damper/shock absorbers- Replacement.	Yes	Yes	Yes
		Drainage – Drainage of water drainage traps or filters within the Pitot static system.	Yes	Yes	Yes
		Flexible tubes - Replacement of damaged tubes.	Yes	Yes	Yes
32	Landing Gear	Wheels – Removal, replacement and servicing, including replacement of wheel bearings and lubrication.	Yes	Yes	Yes
		Servicing – Replenishment of hydraulic fluid	Yes	Yes	Yes
		Shock Absorber – Replacement or servicing of elastic cords or rubber dampers.	Yes	Yes	Yes

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**AMC AND GM TO APPENDICES TO PART-M**

		Shock Struts – Replenishment of oil or air.	Yes	Yes	Yes
		Landing gear doors - Removal or reinstallation and repair including operating straps.	Yes	Yes	Yes
		Skis – Changing between wheel and ski landing gear.	Yes	Yes	Yes
		Skids – Removal or reinstallation and servicing of main, wing and tail skids.	Yes	Yes	Yes
		Wheels fairing (spats) – Removal and reinstallation.	Yes	Yes	Yes
		Mechanical brakes – Adjustment of simple cable operated systems.	Yes	Yes	Yes
		Brake – Replacement of worn brake pads.	Yes	Yes	Yes
		Springs – Replacement of worn or aged springs.	Yes	Yes	Yes
		Gear Warning –Removal or reinstallation of simple gear warning systems.	Yes	Yes	Yes
33	Lights	Lights – Replacement of internal and external bulbs, filaments, reflectors and lenses.	N/A	N/A	Yes
34	Navigation	Software – Updating self contained, instrument panel mount navigational software databases, excluding automatic flight control systems and transponders and including update of non-required instruments/equipment.	Yes	Yes	Yes
		Navigation devices – Removal and replacement of self contained, instrument panel mount navigation devices with quick disconnect connectors, excluding automatic flight control systems, transponders, primary flight control system.	Yes	Yes	Yes
		Self contained data logger – Installation, data restoration.	Yes	Yes	Yes
51	Structure	Fabric patches – Simple patches extending over not more than one rib and not requiring rib stitching or removal of structural parts or control surfaces.	Yes	Yes	Yes
		Protective Coating – Applying preservative material or coatings where no disassembly of any primary structure or operating system is involved.	Yes	Yes	Yes

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**AMC AND GM TO APPENDICES TO PART-M**

		Surface finish - Minor restoration of paint or coating where the underlying primary structure is not affected. This includes application of signal coatings or thin foils as well as Registration markings.	Yes	Yes	Yes
		Fairings – Simple repairs to non-structural fairings and cover plates which do not change the contour.	Yes	Yes	Yes
52	Doors	Doors - Removal and reinstallation.	Yes	Yes	Yes
53	Fuselage	Upholstery, furnishing – Minor repairs which do not require disassembly of primary structure or operating systems, or interfere with control systems.	Yes	Yes	Yes
56	Windows	Side Windows - Replacement if it does not require riveting, bonding or any special process.	Yes	Yes	Yes
		Canopies - Removal and re-fitment.	Yes	Yes	Yes
		Gas dampener – Replacement of Canopy Gas dampener.	Yes	Yes	Yes
57	Wings	Wing Skids – Removal or reinstallation and service of lower wing skids or wing roller including spring assembly.	Yes	Yes	Yes
		Water ballast – Removal or reinstallation of flexible tanks.	Yes	Yes	Yes
		Turbulator and sealing tapes – Removal or reinstallation of approved sealing tapes and turbulator tapes.	Yes	Yes	Yes
61	Propeller	Spinner – Removal and reinstallation.	N/A	Yes	Yes
71	Powerplant installation	Removal or installation of Powerplant unit including engine and propeller.	N/A	Yes	NO
		Cowling - Removal and reinstallation not requiring removal of propeller or disconnection of flight controls.	N/A	Yes	Yes
		Induction System – Inspection and replacement of induction air filter.	N/A	Yes	Yes
72	Engine	Chip detectors – Removal, checking and reinstallation provided the chip detector is a self-sealing type and not electrically indicated.	N/A	Yes	Yes
73	Engine fuel	Strainer or Filter elements – Cleaning and/or replacement.	N/A	Yes	Yes

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**AMC AND GM TO APPENDICES TO PART-M**

		Fuel - Mixing of required oil into fuel.	N/A	Yes	Yes
74	Ignition	Spark Plugs – Removal, cleaning, adjustment and reinstallation.	N/A	Yes	Yes
75	Cooling	Coolant – Replenishment of coolant fluid.	N/A	Yes	Yes
76	Engine Controls	Controls – Minor adjustments of non-flight or propulsion controls whose operation is not critical for any phase of flight.	N/A	Yes	NO
77	Engine Indicating	Engine Indicating – Removal and replacement of self-contained instrument panel mount indicators that have quick-release connectors and do not employ direct reading connections.	N/A	Yes	Yes
79	Oil System	Strainer or Filter elements – Cleaning and/or replacement.	N/A	Yes	Yes
		Oil – Changing or replenishment of engine oil and gearbox fluid.	N/A	Yes	Yes

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**AMC AND GM TO APPENDICES TO PART-M**

**Part D/PILOT-OWNER MAINTENANCE TASKS for BALLOONS/AIRSHIPS**

Area and Task	Hot Air Airship	Hot Air Balloon	Gas Balloon
<b>A) ENVELOPE</b>			
1- Fabric repairs - excluding complete panels (as defined in, and in accordance with, Type Certificate holders' instructions) not requiring load tape repair or replacement.	Yes	Yes	No
2- Nose line - Replacement	Yes	N/A	N/A
3- Banners - fitment, replacement or repair (without sewing).	Yes	Yes	Yes
4- Melting link (temperature flag) - replacement.	Yes	Yes	N/A
5- Temperature transmitter and temperature indication cables - removal or reinstallation.	Yes	Yes	N/A
6- Crown line - replacement (where permanently attached to the crown ring).	No	Yes	N/A
7- Scoop or skirt-replacement or repair of (including fasteners).	Yes	Yes	N/A
<b>B) BURNER</b>			
8- Burner - cleaning and lubrication.	Yes	Yes	N/A
9- Piezo igniters - adjustment.	Yes	Yes	N/A
10- Burner jets - cleaning and replacement.	Yes	Yes	N/A
11- Burner frame corner buffers - replacement or reinstallation.	Yes	Yes	N/A
12- Burner Valves - adjustment of closing valve not requiring special tools or test equipment.	Yes	Yes	N/A
<b>C) BASKET AND GONDOLA</b>			

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**AMC AND GM TO APPENDICES TO PART-M**

13- Basket/gondola frame trim - repair or replacement.	Yes	Yes	Yes
14- Basket/gondola runners (including wheels) - repair or replacement.	Yes	Yes	Yes
15- External rope handles - repair.	Yes	Yes	Yes
16- Replacement of seat covers - upholsteries and safety belts.	Yes	Yes	Yes
<b>D) FUEL CYLINDER</b>			
17- Liquid valve - replacement of O-rings in the outlet.	Yes	Yes	No
<b>E) INSTRUMENTS AND EQUIPMENT</b>			
18- Batteries - replacement of for self-contained instruments and communication equipment.	Yes	Yes	Yes
19- Communication, navigation devices, instruments and/or equipment – Remove and replace self-contained, instrument panel mounted communication devices with quick disconnect connectors.	Yes	Yes	Yes
<b>F) ENGINES</b>			
20- Cleaning and Lubrication not requiring disassembly other than removal of non-structural items such as cover plates, cowlings and fairings.	Yes	N/A	N/A
21- Cowling-removal and re-fitment not requiring removal of the propeller	Yes	N/A	N/A
22- Fuel and oil strainers and/or filter elements - Removal, cleaning and/or replacement	Yes	N/A	N/A
23- Batteries - replacing and servicing (excluding servicing of Ni-Cd batteries).	Yes	N/A	N/A
24- Propeller Spinner – removal and installation for inspection.	Yes	N/A	N/A

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**AMC AND GM TO APPENDICES TO PART-M**

25- Powerplant - Removal or installation of powerplant unit including engine and propeller.	Yes	N/A	N/A
26- Engine- Chip detectors – remove, check and replace.	Yes	N/A	N/A
27- Ignition Spark Plug – removal or installation and adjustment including gap clearance.	Yes	N/A	N/A
28- Coolant fluid - replenishment.	Yes	N/A	N/A
29- Engine Controls - minor adjustments of non-flight or propulsion controls whose operation is not critical for any phase of flight.	Yes	N/A	N/A
30- Engine instruments - removal and replacement.	Yes	N/A	N/A
31- Lubrication oil – changing or replenishment of engine oil and gearbox fluid.	Yes	N/A	N/A
32- Fuel lines - replacement of prefabricated hoses with self-sealing couplings.	Yes	N/A	N/A
33- Air filters (if installed) – removal, cleaning and replacement.	Yes	N/A	N/A



**APPENDICES TO AMC'S AND GM**

**Appendix I to AMC M.A.302 and AMC M.B.301(b) Content of the maintenance programme**

**1. General requirements**

- 1.1. The maintenance programme should contain the following basic information.
  - 1.1.1. The type/model and registration number of the aircraft, engines and, where applicable, auxiliary power units and propellers.
  - 1.1.2. The name and address of the owner, operator or CAMO managing the aircraft airworthiness.
  - 1.1.3. The reference, the date of issue and issue number of the approved maintenance programme.
  - 1.1.4. A statement signed by the owner, operator or CAMO managing the aircraft airworthiness to the effect that the specified aircraft will be maintained to the programme and that the programme will be reviewed and updated as required.
  - 1.1.5. Contents/list of effective pages and their revision status of the document.
  - 1.1.6. Check periods, which reflect the anticipated utilisation of the aircraft. Such utilisation should be stated and include a tolerance of not more than 25%. Where utilisation cannot be anticipated, calendar time limits should also be included.
  - 1.1.7. Procedures for the escalation of established check periods, where applicable and acceptable to the competent authority of registry.
  - 1.1.8. Provision to record the date and reference of approved amendments incorporated in the maintenance programme.
  - 1.1.9. Details of pre-flight maintenance tasks that are accomplished by maintenance staff.
  - 1.1.10. The tasks and the periods (intervals/frequencies) at which each part of the aircraft, engines, APU's, propellers, components, accessories, equipment, instruments, electrical and radio apparatus, together with the associated systems and installations should be inspected. This should include the type and degree of inspection required.
  - 1.1.11. The periods at which components should be checked, cleaned, lubricated, replenished, adjusted and tested.
  - 1.1.12. If applicable details of ageing aircraft system requirements together with any specified sampling programmes.
  - 1.1.13. If applicable details of specific structural maintenance programmes where issued by the type certificate holder including but not limited to:
    - (a) Maintenance of structural Integrity by damage Tolerance and Supplemental Structural Inspection Programmes (SSID).
    - (b) Structural maintenance programmes resulting from the SB review performed by the TC holder.
    - (c) Corrosion prevention and control.
    - (d) Repair Assessment.
    - (e) Widespread Fatigue Damage.
  - 1.1.14. If applicable, details of Critical Design Configuration Control Limitations together with appropriate procedures.

- 1.1.15. If applicable a statement of the limit of validity in terms of total flight cycles/calendar date/flight hours for the structural programme in 1.1.13.
- 1.1.16. The periods at which overhauls and/or replacements by new or overhauled components should be made.
- 1.1.17. A cross-reference to other documents approved by the Agency which contain the details of maintenance tasks related to mandatory life limitations, Certification Maintenance Requirements (CMR's) and ADs.

Note: To prevent inadvertent variations to such tasks or intervals these items should not be included in the main portion of the maintenance programme document, or any planning control system, without specific identification of their mandatory status.

- 1.1.18. Details of, or cross-reference to, any required reliability programme or statistical methods of continuous Surveillance.
- 1.1.19. A statement that practices and procedures to satisfy the programme should be to the standards specified in the TC holder's Maintenance Instructions. In the case of approved practices and procedures that differ, the statement should refer to them.
- 1.1.20. Each maintenance task quoted should be defined in a definition section of the programme.

## **2. Programme basis**

- 2.1. An owner or a CAMO aircraft maintenance programme should normally be based upon the MRB report, where applicable, and the TC holder's maintenance planning document or Chapter 5 of the maintenance manual, (i.e. the manufacturer's recommended maintenance programme).

The structure and format of these maintenance recommendations may be re-written by the owner or the CAMO to better suit the operation and control of the particular maintenance programme.

- 2.2. For a newly type-certificated aircraft where no previously approved maintenance programme exists, it will be necessary for the owner or the CAMO to comprehensively appraise the manufacturer's recommendations (and the MRB report where applicable), together with other airworthiness information, in order to produce a realistic programme for approval.
- 2.3. For existing aircraft types it is permissible for the operator to make comparisons with maintenance programmes previously approved. It should not be assumed that a programme approved for one owner or the CAMO would automatically be approved for another.

Evaluation should be made of the aircraft/fleet utilisation, landing rate, equipment fit and, in particular, the experience of the owner or the CAMO when assessing an existing programme.

Where the competent authority is not satisfied that the proposed maintenance programme can be used as is, the competent authority should request appropriate changes such as additional maintenance tasks or de-escalation of check frequencies as necessary.

- 2.4. Critical Design Configuration Control Limitations (CDCCL)

If CDCCL have been identified for the aircraft type by the TC/STC holder, maintenance instructions should be developed. CDCCL's are characterised by features in an aircraft installation or component that should be retained during modification, change, repair, or scheduled maintenance for the operational life of the aircraft or applicable component or part.

## **3. Amendments**

Amendments (revisions) to the approved maintenance programme should be made by the owner or the CAMO, to reflect changes in the TC holder's recommendations, modifications, service experience, or as required by the competent authority.

**4. Permitted variations to maintenance periods**

The owner or the CAMO may only vary the periods prescribed by the programme with the approval of the competent authority or through a procedure developed in the maintenance programme and approved by the competent authority.

**5. Periodic review of maintenance programme contents**

5.1. The owner or the CAMO approved maintenance programmes should be subject to periodic review to ensure that they reflect current TC holder's recommendations, revisions to the MRB report if applicable, mandatory requirements and the maintenance needs of the aircraft.

5.2. The owner or the CAMO should review the detailed requirements at least annually for continued validity in the light of operating experience.

**6. Reliability Programmes**

**6.1. Applicability**

6.1.1. A reliability programme should be developed in the following cases:

- (a) the aircraft maintenance programme is based upon MSG-3 logic;
- (b) the aircraft maintenance programme includes condition monitored components;
- (c) the aircraft maintenance programme does not contain overhaul time periods for all significant system components;
- (d) when specified by the Manufacturer's maintenance planning document or MRB.

6.1.2. A reliability Programme need not be developed in the following cases:

- (a) the maintenance programme is based upon the MSG-1 or 2 logic but only contains hard time or on condition items;
- (b) the aircraft is not a large aircraft according to Part-M;
- (c) the aircraft maintenance programme provides overhaul time periods for all significant system components;
- (d) Note: for the purpose of this paragraph, a significant system is a system the failure of which could hazard the aircraft safety.

6.1.3. Notwithstanding paragraphs 6.1.1 and 6.1.2 above, a CAMO may however, develop its own reliability monitoring programme when it may be deemed beneficial from a maintenance planning point of view.

**6.2. Applicability for CAMO/operator of small fleets of aircraft.**

6.2.1. For the purpose of this paragraph, a small fleet of aircraft is a fleet of less than 6 aircraft of the same type.

6.2.2. The requirement for a reliability programme is irrespective of the CAMO fleet size.

6.2.3. Complex reliability programmes could be inappropriate for a small fleet. It is recommended that such CAMOs tailor their reliability programmes to suit the size and complexity of operation.

- 6.2.4. One difficulty with a small fleet of aircraft consists in the amount of available data which can be processed: when this amount is too low, the calculation of alert level is very coarse. Therefore 'alert levels' should be used carefully.
- 6.2.5. A CAMO of a small fleet of aircraft, when establishing a reliability programme, should consider the following:
- (a) The programme should focus on areas where a sufficient amount of data is likely to be processed.
  - (b) When the amount of available data is very limited, the CAMO engineering judgement is then a vital element. In the following examples, careful engineering analysis should be exercised before taking decisions:
    - A '0' rate in the statistical calculation may possibly simply reveal that enough statistical data is missing, rather than there is no potential problem.
    - When alert levels are used, a single event may have the figures reach the alert level. Engineering judgement is necessary so as to discriminate an artefact from an actual need for a corrective action.
    - In making his engineering judgement, a CAMO is encouraged to establish contact and make comparisons with other CAMOs of the same aircraft, where possible and relevant. Making comparison with data provided by the manufacturer may also be possible.
- 6.2.6. In order to obtain accurate reliability data, it should be recommended to pool data and analysis with one or more other CAMO(s). Paragraph 6.6 of this paragraph specifies under which conditions it is acceptable that CAMOs share reliability data.
- 6.2.7. Notwithstanding the above there are cases where the CAMO will be unable to pool data with other CAMO, e.g. at the introduction to service of a new type. In that case the competent authority should impose additional restrictions on the MRB/MPD tasks intervals (e.g. no variations or only minor evolution are possible, and with the competent authority approval).
- 6.3. Engineering judgement
- 6.3.1. Engineering judgement is itself inherent to reliability programmes as no interpretation of data is possible without judgement. In approving the CAMO maintenance and reliability programmes, the competent authority is expected to ensure that the organisation which runs the programme (it may be CAMO, or an Part-145 organisation under contract) hires sufficiently qualified personnel with appropriate engineering experience and understanding of reliability concept (see AMC M.A.706).
- 6.3.2. It follows that failure to provide appropriately qualified personnel for the reliability programme may lead the competent authority to reject the approval of the reliability programme and therefore the aircraft maintenance programme.
- 6.4. Contracted maintenance
- 6.4.1. Whereas M.A.302 specifies that, the aircraft maintenance programme -which includes the associated reliability programme-, should be managed and presented by the CAMO to the competent authority, it is understood that the CAMO may delegate certain functions to the Part-145 organisation under contract, provided this organisation proves to have the appropriate expertise.
- 6.4.2. These functions are:

- (a) Developing the aircraft maintenance and reliability programmes,
- (b) Performing the collection and analysis of the reliability data,
- (c) Providing reliability reports, and
- (d) Proposing corrective actions to the CAMO.

6.4.3. Notwithstanding the above decision to implement a corrective action (or the decision to request from the competent authority the approval to implement a corrective action) remains the CAMO prerogative and responsibility. In relation to paragraph 6.4.2(d) above, a decision not to implement a corrective action should be justified and documented.

6.4.4. The arrangement between the CAMO and the Part-145 organisation should be specified in the maintenance contract (see appendix 11) and the relevant CAME, and MOE procedures.

#### 6.5. Reliability programme

In preparing the programme details, account should be taken of this paragraph. All associated procedures should be clearly defined.

##### 6.5.1. Objectives

6.5.1.1. A statement should be included summarising as precisely as possible the prime objectives of the programme. To the minimum it should include the following:

- (a) to recognise the need for corrective action,
- (b) to establish what corrective action is needed and,
- (c) to determine the effectiveness of that action.

6.5.1.2. The extent of the objectives should be directly related to the scope of the programme. Its scope could vary from a component defect monitoring system for a small CAMO, to an integrated maintenance management programme for a big CAMO. The manufacturer's maintenance planning documents may give guidance on the objectives and should be consulted in every case.

6.5.1.3. In case of a MSG-3 based maintenance programme, the reliability programme should provide a monitor that all MSG-3 related tasks from the maintenance programme are effective and their periodicity is adequate.

##### 6.5.2. Identification of items.

The items controlled by the programme should be stated, e.g. by ATA Chapters. Where some items (e.g. aircraft structure, engines, APU) are controlled by separate programmes, the associated procedures (e.g. individual sampling or life development programmes, constructor's structure sampling programmes) should be cross referenced in the programme.

##### 6.5.3. Terms and definitions.

The significant terms and definitions applicable to the Programme should be clearly identified. Terms are already defined in MSG-3, Part-145 and Part-M.

##### 6.5.4. Information sources and collection.

6.5.4.1. Sources of information should be listed and procedures for the transmission of information from the sources, together with the procedure for collecting and receiving it, should be set out in detail in the CAME or MOE as appropriate.

6.5.4.2. The type of information to be collected should be related to the objectives of the Programme and should be such that it enables both an overall broad based assessment of the information to be made and also allow for assessments to be made as to whether any reaction, both to trends and to individual events, is necessary. The following are examples of the normal prime sources:

- (a) Pilots Reports.
- (b) Technical Logs.
- (c) Aircraft Maintenance Access Terminal / On-board Maintenance System readouts.
- (d) Maintenance Worksheets.
- (e) Workshop Reports.
- (f) Reports on Functional Checks.
- (g) Reports on Special Inspections.
- (h) Stores Issues/Reports.
- (i) Air Safety Reports.
- (j) Reports on Technical Delays and Incidents.
- (k) Other sources: ETOPS, RVSM, CAT II/III.

6.5.4.3. In addition to the normal prime sources of information, due account should be taken of continuing airworthiness and safety information promulgated under Part-21.

6.5.5. Display of information.

Collected information may be displayed graphically or in a tabular format or a combination of both. The rules governing any separation or discarding of information prior to incorporation into these formats should be stated. The format should be such that the identification of trends, specific highlights and related events would be readily apparent.

6.5.5.1. The above display of information should include provisions for 'nil returns' to aid the examination of the total information.

6.5.5.2. Where 'standards' or 'alert levels' are included in the programme, the display of information should be oriented accordingly.

6.5.6. Examination, analysis and interpretation of the information.

The method employed for examining, analysing and interpreting the programme information should be explained.

6.5.6.1. Examination.

Methods of examination of information may be varied according to the content and quantity of information of individual programmes. These can range from examination of the initial indication of performance variations to formalised detailed procedures at specific periods, and the methods should be fully described in the programme documentation.

6.5.6.2. Analysis and Interpretation.

The procedures for analysis and interpretation of information should be such as to enable the performance of the items controlled by the programme to be measured; they should also

facilitate recognition, diagnosis and recording of significant problems. The whole process should be such as to enable a critical assessment to be made of the effectiveness of the programme as a total activity. Such a process may involve:

- (a) Comparisons of operational reliability with established or allocated standards (in the initial period these could be obtained from in-service experience of similar equipment of aircraft types).
- (b) Analysis and interpretation of trends.
- (c) The evaluation of repetitive defects.
- (d) Confidence testing of expected and achieved results.
- (e) Studies of life-bands and survival characteristics.
- (f) Reliability predictions.
- (g) Other methods of assessment.

6.5.6.3. The range and depth of engineering analysis and interpretation should be related to the particular programme and to the facilities available. The following, at least, should be taken into account:

- (a) Flight defects and reductions in operational reliability.
- (b) Defects occurring on-line and at main base.
- (c) Deterioration observed during routine maintenance.
- (d) Workshop and overhaul facility findings.
- (e) Modification evaluations.
- (f) Sampling programmes.
- (g) The adequacy of maintenance equipment and publications.
- (h) The effectiveness of maintenance procedures.
- (i) Staff training.
- (j) Service bulletins, technical instructions, etc.

6.5.6.4. Where the CAMO relies upon contracted maintenance and/or overhaul facilities as an information input to the programme, the arrangements for availability and continuity of such information should be established and details should be included.

6.5.7. Corrective Actions.

6.5.7.1. The procedures and time scales both for implementing corrective actions and for monitoring the effects of corrective actions should be fully described. Corrective actions shall correct any reduction in reliability revealed by the programme and could take the form of:

- (a) Changes to maintenance, operational procedures or techniques.
- (b) Maintenance changes involving inspection frequency and content, function checks, overhaul requirements and time limits, which will require amendment of the scheduled maintenance periods or tasks in the approved maintenance programme. This may include escalation or de-escalation of tasks, addition, modification or deletion of tasks.

- (c) Amendments to approved manuals (e.g. maintenance manual, crew manual).
- (d) Initiation of modifications.
- (e) Special inspections of fleet campaigns.
- (f) Spares provisioning.
- (g) Staff training.
- (h) Manpower and equipment planning.

Note: Some of the above corrective actions may need the competent authority's approval before implementation.

6.5.7.2. The procedures for effecting changes to the maintenance programme should be described, and the associated documentation should include a planned completion date for each corrective action, where applicable.

6.5.8. Organisational Responsibilities.

The organisational structure and the department responsible for the administration of the programme should be stated. The chains of responsibility for individuals and departments (Engineering, Production, Quality, Operations etc.) in respect of the programme, together with the information and functions of any programme control committees (reliability group), should be defined. Participation of the competent authority should be stated. This information should be contained in the CAME or MOE as appropriate.

6.5.9. Presentation of information to the competent authority.

The following information should be submitted to the competent authority for approval as part of the reliability programme:

- (a) The format and content of routine reports.
- (b) The time scales for the production of reports together with their distribution.
- (c) The format and content of reports supporting request for increases in periods between maintenance (escalation) and for amendments to the approved maintenance programme. These reports should contain sufficient detailed information to enable the competent authority to make its own evaluation where necessary.

6.5.10. Evaluation and review.

Each programme should describe the procedures and individual responsibilities in respect of continuous monitoring of the effectiveness of the programme as a whole. The time periods and the procedures for both routine and non-routine reviews of maintenance control should be detailed (progressive, monthly, quarterly, or annual reviews, procedures following reliability 'standards' or 'alert levels' being exceeded, etc.).

6.5.10.1. Each Programme should contain procedures for monitoring and, as necessary, revising the reliability 'standards' or 'alert levels'. The organisational responsibilities for monitoring and revising the 'standards' should be specified together with associated time scales.

6.5.10.2. Although not exclusive, the following list gives guidance on the criteria to be taken into account during the review.

- (a) Utilisation (high/low/seasonal).



- (b) Fleet commonality.
- (c) Alert Level adjustment criteria.
- (d) Adequacy of data.
- (e) Reliability procedure audit.
- (f) Staff training.
- (g) Operational and maintenance procedures.

6.5.11. Approval of maintenance programme amendment

The competent authority may authorise the CAMO to implement in the maintenance programme changes arising from the reliability programme results prior to their formal approval by the authority when satisfied that;

- (a) the Reliability Programme monitors the content of the Maintenance Programme in a comprehensive manner, and
- (b) the procedures associated with the functioning of the 'Reliability Group' provide the assurance that appropriate control is exercised by the Owner/operator over the internal validation of such changes.

6.6. Pooling Arrangements.

6.6.1. In some cases, in order that sufficient data may be analysed it may be desirable to 'pool' data: i.e. collate data from a number of CAMOs of the same type of aircraft. For the analysis to be valid, the aircraft concerned, mode of operation, and maintenance procedures applied should be substantially the same: variations in utilisation between two CAMOs may, more than anything, fundamentally corrupt the analysis. Although not exhaustive, the following list gives guidance on the primary factors which need to be taken into account.

- (a) Certification factors, such as: aircraft TCDS compliance (variant)/modification status, including SB compliance.
- (b) Operational Factors, such as: operational environment/utilisation, e.g. low/high/seasonal, etc./respective fleet size operating rules applicable (e.g. ETOPS/RVSM/All Weather etc.)/operating procedures/MEL and MEL utilisation.
- (c) Maintenance factors, such as: aircraft age maintenance procedures; maintenance standards applicable; lubrication procedures and programme; MPD revision or escalation applied or maintenance programme applicable

6.6.2. Although it may not be necessary for all of the foregoing to be completely common, it is necessary for a substantial amount of commonality to prevail. Decision should be taken by the competent authority on a case by case basis.

6.6.3. In case of a short term lease agreement (less than 6 month) more flexibility against the para 6.6.1 criteria may be granted by the competent authority, so as to allow the owner/operator to operate the aircraft under the same programme during the lease agreement effectivity.

6.6.4. Changes by any one of the CAMO to the above, requires assessment in order that the pooling benefits can be maintained. Where a CAMO wishes to pool data in this way, the approval of the competent authority should be sought prior to any formal agreement being signed between CAMOs.

- 6.6.5. Whereas this paragraph 6.6 is intended to address the pooling of data directly between CAMOs, it is acceptable that the CAMO participates in a reliability programme managed by the aircraft manufacturer, when the competent authority is satisfied that the manufacturer manages a reliability programme which complies with the intent of this paragraph.

**Appendix II to AMC to M.A. 201(h)1 Sub-contracting of continuing airworthiness management tasks**

1. SUB-CONTRACTED OPERATOR'S CONTINUING AIRWORTHINESS MANAGEMENT TASKS
  - 1.1. To actively control the standards of the sub-contracted organisation the operator should employ a person or group of persons who are trained and competent in the disciplines associated with M.A Subpart G. As such they are responsible for determining what maintenance is required, when it has to be performed and by whom and to what standard, in order to ensure the continued airworthiness of the aircraft being operated.
  - 1.2. The operator should conduct a pre-contract audit to establish that the sub-contracted organisation can achieve the standards required by M.A Subpart G in connection with those activities to be sub-contracted.
  - 1.3. The operator should ensure that the sub-contracted organisation has sufficient qualified personnel who are trained and competent in the functions to be subcontracted. In assessing the adequacy of personnel resources the operator should consider the particular needs of those activities that are to be sub-contracted, while taking into account the sub-contracted organisations existing commitments.
  - 1.4. To be appropriately approved to contract out continuing airworthiness management tasks the operator should have procedures for the management control of these arrangements. The operator's continuing airworthiness management exposition should contain relevant procedures to reflect his control of those arrangements made with the subcontracted organisation.
  - 1.5. Sub-contracted continuing airworthiness management tasks should be addressed in a contract between the operator and the sub-contracted organisation. The contract should also specify that the sub-contracted organisation is responsible for informing the operator who is in turn responsible for notifying the respective competent authority, of any subsequent changes that affect their ability to support the contract.
  - 1.6. Organisations providing continuing airworthiness management tasks to support commercial air transport operators should use procedures which set out the manner by which the organisation fulfils its responsibility to those sub-contracted activities. Such procedures may be developed by either the sub-contracted organisation or the operator.
  - 1.7. Where the sub-contracted organisation develops its own procedures these should be compatible with the operator's continuing airworthiness management exposition and the terms of the contract. These should be accepted by the competent authority as extended procedures of the operator and as such should be cross-referenced from the continuing airworthiness management exposition. One current copy of the sub-contracted organisation's relevant procedures should be kept by the operator and should be accessible to the competent authority where needed.

Note: Should any conflict arise between the sub-contracted organisation's procedures and those of the operator then the policy and procedures of the continuing airworthiness management exposition will prevail.
  - 1.8. The contract should also specify that the sub-contracted organisation's procedures may only be amended with the agreement of the operator. The operator should ensure that these

amendments are compatible with their continuing airworthiness management exposition and in compliance with M.A Subpart G.

The operator should nominate who will be responsible for continued monitoring and acceptance of the sub-contracted organisation procedures and their amendments. The controls used to fulfil this function should be clearly set out in the amendment section of the continuing airworthiness management exposition detailing the level of operator involvement.

- 1.9. Whenever any elements of continuing airworthiness management tasks are sub-contracted the operator's continuing airworthiness management personnel should have access to all relevant data in order to fulfil their responsibilities.

Note: The operator retains authority to override where necessary for the continuing airworthiness of their aircraft, any recommendation of the sub-contracted organisation.

- 1.10. The operator should ensure that the sub-contracted organisation continues to have qualified technical expertise and sufficient resources to perform the subcontracted tasks while in compliance with the relevant procedures. Failure to do so may invalidate the approval of the operators continuing airworthiness management system.
- 1.11. The contract should provide for competent authority monitoring.
- 1.12. The contract should address the respective responsibilities to ensure that any findings arising from the competent authority monitoring will be closed to the satisfaction of the competent authority.

## 2. ACCOMPLISHMENT

This paragraph describes topics, which may be applicable in such a sub-contract arrangements.

### 2.1. Scope of work

The type of aircraft and their registrations, engine types and/or component subject to the continuing airworthiness management tasks contract should be specified.

### 2.2. Maintenance programme development and amendment

The operator may sub-contract the preparation of the draft maintenance programme and any subsequent amendments. However, the operator remains responsible for assessing that the draft proposals meet his needs and obtaining competent authority approval; the relevant procedures should specify these responsibilities. The contract should also stipulate that any data necessary to substantiate the approval of the initial programme or an amendment to this programme should be provided for operator agreement and/or competent authority upon request.

### 2.3. Maintenance programme effectiveness and reliability

The operator should have in place a system to monitor and assess the effectiveness of the maintenance programme based on maintenance and operational experience. The collection of data and initial assessment may be made by the sub-contracted organisation; the required actions are to be endorsed by the operator.

Where reliability monitoring is used to establish maintenance programme effectiveness, this may be provided by the sub-contracted organisation and should be specified in the relevant procedures. Reference should be made to the operators approved maintenance programme and reliability programme. Participation of the operator's personnel in reliability meetings with the sub-contracted organisation should also be specified.

In providing reliability data the sub-contracted organisation is limited to working with primary data/documents provided by the operator or data provided by the operators contracted maintenance organisation(s) from which the reports are derived. The pooling of reliability data is permitted if accepted by the competent authority.

**2.4. Permitted variations to maintenance programme**

The reasons and justification for any proposed variation to scheduled maintenance may be prepared by the sub-contracted organisation. Acceptance of the proposed variation should be granted by the operator. The means by which the operator acceptance is given should be specified in the relevant procedures. When outside the limits set out in the maintenance programme, the operator is required to obtain approval by the competent authority.

**2.5. Scheduled maintenance**

Where the sub-contracted organisation plans and defines maintenance checks or inspections in accordance with the approved maintenance programme, the required liaison with the operator, including feedback should be defined.

The planning control and documentation should be specified in the appropriate supporting procedures. These procedures should typically set out the operator's level of involvement in each type of check. This will normally involve the operator assessing and agreeing to a work specification on a case by case for base maintenance checks. For routine line maintenance checks this may be controlled on a day-to-day basis by the sub-contracted organisation subject to appropriate liaison and operator controls to ensure timely compliance. This typically may include, but is not necessarily limited to:

- Applicable work package, including job cards,
- Scheduled component removal list,
- ADs to be incorporated,
- Modifications to be incorporated.

The associated procedures should ensure that the operator is advised in a timely manner on the accomplishment of such tasks.

**2.6. Quality monitoring**

The operator's quality system should monitor the adequacy of the sub-contracted continuing airworthiness management task performance for compliance with the contract and M.A Subpart G. The terms of the contract should therefore include a provision allowing the operator to perform a quality surveillance (including audits) upon the sub-contracted organisation. The aim of the surveillance is primarily to investigate and judge the effectiveness of those sub-contracted activities and thereby to ensure compliance with M.A Subpart G and the contract. Audit reports may be subject to review when requested by the competent authority.

**2.7. Access by the competent authority**

The contract should specify that the sub-contracted organisation should always grant access to the competent authority.

**2.8. Maintenance data**

The maintenance data used for the purpose of the contract should be specified, together with those responsible for providing such documentation and the competent authority responsible for the acceptance/approval of such data when applicable. The operator should ensure such data including revisions is readily available to the operator's continuing airworthiness

management personnel and those in the sub-contracted organisation who may be required to assess such data. The operator should establish a 'fast track' means of ensuring that urgent data is transmitted to the sub-contractor in a timely manner. Maintenance data may include, but is not necessarily limited to:

- Maintenance programme,
- ADs,
- Service Bulletins,
- Major repairs/modification data,
- Aircraft Maintenance Manual,
- Engine overhaul manual,
- Aircraft IPC,
- Wiring diagrams,
- Trouble shooting manual.

#### 2.9. Airworthiness directives

While the various aspects of AD assessment, planning and follow-up may be accomplished by the sub-contracted organisation, embodiment is performed by a Part-145 maintenance organisation. The operator is responsible for ensuring timely embodiment of applicable ADs and is to be provided with notification of compliance. It therefore follows that the operator should have clear policies and procedures on AD embodiment supported by defined procedures which will ensure that the operator agrees to the proposed means of compliance.

The relevant procedures should specify:

- What information (e.g. AD publications, continuing airworthiness records, flight hours/cycles, etc.) the sub-contracted organisation needs from the operator.
- What information (e.g. AD planning listing, detailed engineering order, etc) the operator needs from the sub-contracted organisation in order to ensure timely compliance with ADs.

To fulfil their above responsibility, operators should ensure that they are in receipt of current mandatory continued airworthiness information for the aircraft and equipment that they operate.

#### 2.10. Service bulletin/modifications

The sub-contracted organisation may be required to review and make recommendations on embodiment of an SB and other associated non-mandatory material based on a clear operator policy. This should be specified in the contract.

#### 2.11. Service life limit controls & component control/removal forecast.

Where the sub-contracted organisation performs planning activities, it should be specified that the organisation should be in receipt of the current flight cycles; flight hours; landings and/or calendar controlled details as applicable, at a frequency to be specified in the contract. The frequency should be such that it allows the organisation to properly perform the sub-contracted planning functions. It therefore follows that there will need to be adequate liaison between the operator, his Part-145 maintenance organisation(s) and the sub-contracted organisation. Additionally the contract should specify how the operator will be in possession of all current flight cycles, flight hours, etc. in order that the operator may assure the timely accomplishment of the required maintenance.

2.12. Engine health monitoring

If the operator sub-contracts the on wing engine health monitoring, the sub-contracted organisation should be in receipt of all the relevant information to perform this task, including any parameter reading deemed necessary to be supplied by the operator for this control. The contract should also specify what kind of feedback information (such as engine limitation, appropriate technical advice, etc.) the organisation should provide to the operator.

2.13. Defect control

Where the operator has sub-contracted the day-to-day control of technical log deferred defects this should be specified in the contract and should be adequately described in the appropriate procedures. The operator's MEL/CDL provides the basis for establishing which defects may be deferred and associated limits. The procedures should also define the responsibilities and actions to be taken for defects such as AOG situations, repetitive defects, and damage beyond type certificate holder's limits.

For all other defects identified during maintenance, the information should be brought to the attention of the operator who dependent upon the procedural authority granted by the competent authority may determine that some defects can be deferred. Therefore, adequate liaison between the operator, his sub-contracted organisation and contracted Part-145 maintenance organisation should be ensured.

The sub-contracted organisation should make a positive assessment of potential deferred defects and consider potential hazards arising from the cumulative effect of any combination of defects. The sub-contracted organisations should liaise with the operator to gain his agreement following this assessment.

Deferment of MEL/CDL allowable defects can be accomplished by a contracted Part-145 organisation in compliance with the relevant technical log procedures, subject to the acceptance by the aircraft commander.

2.14. Mandatory occurrence reporting

All incidents and occurrences that fall within the reporting criteria defined in Part-M and Part-145 should be reported as required by the respective requirements. The operator should ensure adequate liaison exists with the sub-contracted organisation and the Part-145 organisation.

2.15. Continuing airworthiness records

These may be maintained and kept by the sub-contracted organisation on behalf of the operator who remains the owner of these documents. However, the operator should be provided with the current status of AD compliance and service life limited components in accordance with agreed procedures. The operator should also be provided with unrestricted and timely access to original records as and when needed. On-line access to the appropriate information systems is acceptable.

The record keeping requirements of Part-M should be satisfied. Access to the records by duly authorised members of the competent authority should be arranged upon request.

2.16. Check flight procedures

Check Flights are carried out under the control of the operator. Check flight requirements from the sub-contracted organisation or contracted Part-145 maintenance organisations should be agreed by the operator.

2.17. Communication between the operator and sub-contracted organisation

2.17.1. To exercise airworthiness responsibility the operator needs to be in receipt of all relevant reports and relevant maintenance data. The contract should specify what information should be provided and when.

2.17.2. Meetings provide one important corner stone whereby the operator can exercise part of its responsibility for ensuring the airworthiness of the operated aircraft. They should be used to establish good communications between the operator, the sub-contracted organisation and, where different to the foregoing, the contracted Part-145 organisation. The terms of contract should include whenever appropriate the provision for a certain number of meetings to be held between involved parties. Details of the types of liaison meetings and associated terms of reference of each meeting should be documented. The meetings may include but are not limited to all or a combination of:

(a) Contract review

Before the contract is applicable, it is very important that the technical personnel of both parties that are involved in the application of the contract meet in order to be sure that every point leads to a common understanding of the duties of both parties.

(b) Work scope planning meeting

Work scope planning meetings may be organised so that the tasks to be performed may be commonly agreed.

(c) Technical meeting

Scheduled meetings should be organised in order to review on a regular basis and agree actions on technical matters such as ADs, SBs, future modifications, major defects found during shop visit, reliability, etc...

(d) Quality meeting

Quality meetings should be organised in order to examine matters raised by the operator's quality surveillance and the competent authority's monitoring activity and to agree upon necessary corrective actions.

(e) Reliability meeting

When a reliability programme exists, the contract should specify the operator's and Part-145 approved organisation's respective involvement in that programme, including the participation to reliability meetings. Provision to enable the competent authority participation in the periodical reliability meetings should also be provided.

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**APPENDICES TO AMC AND GM**

**Appendix III to GM1 M.B.303(b) KEY RISK ELEMENTS**

	<b>Title</b>	<b>Description</b>
<b>A. AIRCRAFT CONFIGURATION</b>		
A.1	Type design and changes to type design	The type design is the part of the approved configuration of a product, as laid down in the TCDS, common to all products of that type. With the exception of changes contained in the certification specifications referred to in Part 21 point 21A.90B or 21A.431B of the Annex (Part 21) any changes to type design shall be approved and, for those embodied, shall be recorded with the reference to the approval.
A.2	Airworthiness limitations	An airworthiness limitation is a boundary beyond which an aircraft or a component thereof must not be operated, unless the instruction(s) associated to this airworthiness limitation is (are) complied with.
A.3	Airworthiness Directives	An Airworthiness Directive means a document issued or adopted by the Agency, which mandates actions to be performed on an aircraft to restore an acceptable level of safety, when evidence shows that the safety level of this aircraft may otherwise be compromised. (Part 21A.3B)
<b>B. AIRCRAFT OPERATION</b>		
B.1	Aircraft documents	Aircraft certificates and documents necessary for operations.
B.2	Flight Manual	A manual, associated with the certificate of airworthiness, containing limitations within which operation of the aircraft is to be considered airworthy and, instructions and information necessary to the flight crew members for the safe operation of the aircraft.
B.3	Mass & balance	Mass and balance data is required to make sure the aircraft is capable of operating within the approved envelope.
B.4	Markings & placards	Markings and placards are defined in the individual aircraft type design. Some information may also be found in the Type Certificate Data Sheet, the Supplemental Type Certificates, the Flight Manual, the Aircraft Maintenance Manual, the Illustrated Parts Catalogue, etc.
B.5	Operational requirements	Items required to be installed to perform a specific type of operation.
B.6	Defect management	Defect management requires a system whereby information on faults, malfunctions, defects and other occurrences that cause or might cause adverse effects on the continuing airworthiness of the aircraft is captured. This system should be properly documented. It may include, amongst others, the Minimum Equipment List system, the Configuration Deviation List system and deferred defects management.
<b>C. AIRCRAFT MAINTENANCE</b>		
C.1	Aircraft Maintenance Programme	A document which describes or incorporates by reference the specific scheduled maintenance tasks and their frequency of completion, the associated maintenance procedures and related standard maintenance practices necessary for the safe operation of those aircraft to which it applies.



**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**APPENDICES TO AMC AND GM**

	<b>Title</b>	<b>Description</b>
C.2	Component control	<p>The component control should consider a twofold objective for components maintenance:</p> <ul style="list-style-type: none"><li>- maintenance for which compliance is <u>mandatory</u>;</li><li>- maintenance for which compliance is <u>recommended</u>.</li></ul>
C.3	Repairs	<p>All repairs and unrepaired damage/degradations need to comply with the instructions of the appropriate maintenance manual (e.g. the SRM, the AMM, the CMM). With the exception of repairs contained in the certification specifications referred to in Part 21 point 21A.90B or 21A.431B of the Annex (Part 21), all repairs not defined in the appropriate maintenance manual need to be appropriately approved and recorded with the reference to the approval.</p> <p>This includes any damage or repairs to the aircraft/engine(s)/propeller(s), and their components.</p>
C.4	Records	<p>Continuing Airworthiness records are defined in M.A.305 and M.A.306 and related AMCs.</p>

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**APPENDICES TO AMC AND GM**

<b>A.1</b>	<b>Type design and changes to type design</b>	The type design is the part of the approved configuration of a product, as laid down in the TCDS, common to all products of that type. With the exception of changes contained in the certification specifications referred to in Part 21 point 21A.90B or 21A.431B of the Annex (Part 21) any changes to type design shall be approved and, for those embodied, shall be recorded with the reference to the approval.
<b>Supporting information</b>		<b>Typical inspection items</b>
<p>The type design consists of:</p> <ol style="list-style-type: none"> <li>1. the drawings and specifications, and a listing of those drawings and specifications, necessary to define the configuration and the design features of the product (i.e. the aircraft, its components, etc.) shown to comply with the applicable type-certification basis and environmental protection requirements;</li> <li>2. information on materials and processes and on methods of manufacture and assembly of the product necessary to ensure the conformity of the product;</li> <li>3. an approved Airworthiness Limitation Section (ALS) of the Instructions for Continued Airworthiness (ICA); and</li> <li>4. any other data necessary to allow by comparison the determination of the airworthiness, the characteristics of noise, fuel venting, and exhaust emissions (where applicable) of later products of the same type.</li> </ol> <p>The individual aircraft design is made of the type design supplemented with changes to the type design (e.g. modifications) embodied on the considered aircraft.</p> <p>Depending on the product State of Design, Bilateral Agreements and/or Agency decisions on acceptance of certification findings exist and should be taken into account.</p>		<ol style="list-style-type: none"> <li>1. Use the current type certificate data sheets (airframe, engine, propeller as applicable) and check that the aircraft conforms to its type design (correct engine installed, seat configuration, etc.).</li> <li>2. Check that changes have been approved properly (approved data is used, and a direct relation to the approved data).</li> <li>3. Check for unintentional deviations from the approved type design, sometimes referred to as concessions, divergences, or non-conformances, Technical Adaptations, Technical Variations, etc.</li> <li>4. Check cabin configuration (LOPA).</li> <li>5. Check for embodiment of STC's, and, if any Airworthiness Limitations Section (ALS)/ FM/MEL/WBM and revisions are needed, they have been approved and complied with.             <ol style="list-style-type: none"> <li>a. Aircraft S/N applicable</li> <li>b. Applicable engines</li> <li>c. Applicable APU</li> <li>d. Max. certified weights</li> <li>e. Seating configuration</li> <li>f. Exits</li> </ol> </li> <li>6. Check that the individual aircraft design/configuration is properly established and used as a reference.</li> </ol>
<b>Reference documents: EASA</b>		<ul style="list-style-type: none"> <li>- 21.A.31</li> <li>- 21.A.41</li> </ul>

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

*APPENDICES TO AMC AND GM*

	<ul style="list-style-type: none"><li>- 21.A.61</li><li>- 21.A.90A</li><li>- 21.A.90B</li><li>- M.A.304</li><li>- M.A.305</li><li>- M.A.401</li></ul>
--	---

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**APPENDICES TO AMC AND GM**

<b>A.2</b>	<b>Airworthiness limitations</b>	An airworthiness limitation is a boundary beyond which an aircraft or a component thereof must not be operated, unless the instruction(s) associated with this airworthiness limitation is complied with.
<b>Supporting information</b>		<b>Typical inspection items</b>
<p>Airworthiness limitations are exclusively associated with instructions whose compliance is mandatory as part of the type design. They apply to some scheduled or unscheduled instructions that have been developed to prevent and/or to detect the most severe failure.</p> <p>They mainly apply to maintenance (mandatory modification, replacement, inspections, checks, etc., but can also apply to instructions to control critical design configurations (for example Critical Design Configuration Control Limitations (CDCCL) for the fuel tank safety).</p>		<ol style="list-style-type: none"> <li>1. Check that the Aircraft Maintenance Programme (AMP) reflects airworthiness limitations and associated instructions (standard or alternative) issued by the relevant design approval holders and is approved by the competent authority.</li> <li>2. Check that the aircraft and the components thereof comply with the approved AMP.</li> <li>3. Check the current status of life-limited parts. The current status of life-limited parts is to be maintained throughout the operating life of the part.</li> </ol> <p>Typical Airworthiness Limitation items:</p> <ul style="list-style-type: none"> <li>- Safe Life ALI (SL ALI)/Life limited parts,</li> <li>- Damage Tolerant ALI (DT ALI)/Structure, including ageing aircraft structure,</li> <li>- Certification Maintenance Requirements (CMR),</li> <li>- Ageing Systems Maintenance (ASM), including Airworthiness Limitations for Electrical Wiring Interconnection System (EWIS),</li> <li>- Fuel Tank Ignition Prevention (FTIP)/Flammability Reduction Means (FRM),</li> <li>- CDCCL, check wiring if any maintenance carried out in same area - wiring separation,</li> <li>- Ageing fleet inspections mandated through ALS or AD are included in the AMP.</li> </ul>
<b>Reference documents: EASA</b>		<ul style="list-style-type: none"> <li>- 21.A.31</li> <li>- 21.A.61</li> <li>- CS 22.1529</li> <li>- CS 23.1529, Appendix G, para. G25.4</li> <li>- CS 25.1529, Appendix H, para. H25.4</li> <li>- CS 27.1529, Appendix A, para. A27.4</li> <li>- CS 29.1529, Appendix A, para. A29.4</li> </ul>

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**APPENDICES TO AMC AND GM**

<b>A.2</b>	<b>Airworthiness limitations</b>	An airworthiness limitation is a boundary beyond which an aircraft or a component thereof must not be operated, unless the instruction(s) associated with this airworthiness limitation is complied with.
		<ul style="list-style-type: none"><li>- CS 31HB.82</li><li>- CS-APU 30</li><li>- CS-E 25</li><li>- CS-P 40</li><li>- CS VLR.1529, Appendix A, para. A.VLR.4</li><li>- M.A.302</li><li>- M.A.305</li><li>- M.A.710(a)(7)</li></ul>

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**APPENDICES TO AMC AND GM**

<b>A.3</b>	<b>Airworthiness Directives</b>	An Airworthiness Directive means a document issued or adopted by the Agency, which mandates actions to be performed on an aircraft to restore an acceptable level of safety, when evidence shows that the safety level of this aircraft may otherwise be compromised (Part 21A.3B).
<b>Supporting information</b>		<b>Typical inspection items</b>
Any Airworthiness Directive issued by a State of Design for an aircraft imported from a third country, or for an engine, propeller, part or appliance imported from a third country and installed on an aircraft registered in a Member State, shall apply unless the Agency has issued a different Decision before the date of entry into force of that airworthiness directive.		<ol style="list-style-type: none"> <li>1. Check if all ADs applicable to the airframe, engine(s), propeller(s) and equipment have been incorporated in the AD-status, including their revisions.</li> <li>2. Check records for correct AD applicability (including ADs incorrectly listed as non-applicable).</li> <li>3. Check by sampling in the current AD status that applicable ADs have been or are planned to be (as appropriate) carried out within the requirements of these Airworthiness Directives, unless otherwise specified by the Agency (AMOC).</li> <li>4. Check that applicable ADs related to maintenance are included into the Aircraft Maintenance Programme.</li> <li>5. Check that task-cards correctly reflect AD requirements or refer to procedures and standard practises referenced in ADs.</li> <li>6. Sample during a physical survey some ADs for which compliance can be physically checked.</li> </ol>
<b>Reference documents: EASA</b>		<ul style="list-style-type: none"> <li>- 21.A.3B</li> <li>- 21.B.60</li> <li>- 21.B.326</li> <li>- 21.B.327</li> <li>- M.A.201 &amp; AMC M.A.201(h) § 4</li> <li>- M.A.303</li> <li>- M.A.305(d) &amp; (h)</li> <li>- M.A.401(a) &amp; (b)</li> <li>- M.A.501(b)</li> <li>- M.A.503(a)</li> <li>- M.A.504(a) 2</li> </ul>

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

*APPENDICES TO AMC AND GM*

	<ul style="list-style-type: none"><li>- M.A.504 &amp; AMC M.A.504(c) § 1 (f)</li><li>- M.A.613 &amp; AMC M.A.613(a) § 2.4.3, 2.5.2, 2.6.1(h) &amp; 2.8(b)</li><li>- M.A.708(b)8</li><li>- M.A.709(a)</li><li>- M.A.710(a)5</li><li>- M.A.801 &amp; AMC M.A.801(h)</li></ul>
--	---

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**APPENDICES TO AMC AND GM**

<b>B.1</b>	<b>Aircraft documents</b>	Aircraft certificates and documents necessary for operations.
<b>Supporting information</b>		<b>Typical inspection items</b>
<p>The aircraft certificates and documents necessary for operations may include, but are not necessarily limited to:</p> <ul style="list-style-type: none"> <li>- Certificate of Registration;</li> <li>- Certificate of Airworthiness;</li> <li>- Noise certificate;</li> <li>- Aircraft certificate of release to service;</li> <li>- Technical log book, if required;</li> <li>- Airworthiness Review Certificate;</li> <li>- Etc.</li> </ul>		<ol style="list-style-type: none"> <li>1. Check that all certificates and documents pertinent to the aircraft and necessary for operations (or copies, as appropriate) are on board.</li> <li>2. Check C of A modification/Aircraft identification.</li> <li>3. Check that noise certificate corresponds to aircraft configuration.</li> <li>4. Check Permit to fly and Flight Condition when necessary.</li> <li>5. Check that there is an appropriate aircraft certificate of release to service.</li> </ol>
<b>Reference documents: EASA</b>		<ul style="list-style-type: none"> <li>- Part-21 Subpart H</li> <li>- 21.A.175</li> <li>- 21.A.177</li> <li>- 21.A.182</li> <li>- Part-21 Subpart I</li> <li>- Part-21 Subpart P</li> <li>- Part-21 Subpart Q</li> <li>- 21.A.801</li> <li>- 21.A.807</li> <li>- M.A.201(a)(2)</li> <li>- M.A.801</li> </ul>



**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**APPENDICES TO AMC AND GM**

<b>B.2</b>	<b>Flight Manual</b>	A manual, associated with the certificate of airworthiness, containing operational limitations, instructions and information necessary for the flight crew members for the safe operation of the aircraft.
<b>Supporting information</b>		<b>Typical inspection items</b>
<p>The Flight Manual needs to reflect the current status/configuration of the aircraft. When it does not, it may provide flight crew members with wrong information.</p> <p>This may lead to errors and/or to override limitations that could contribute to severe failure.</p>		<ol style="list-style-type: none"> <li>1. Check the conformity of the Flight Manual (FM), latest issue, with aircraft configuration, including modification status, (AD, SB, STC etc.).</li> <li>2. Check: <ul style="list-style-type: none"> <li>- the FM approval, revision control, Supplement to FM;</li> <li>- the impact of modification status on noise and weight &amp; balance;</li> <li>- additional required manuals (QRH/FCOM/OM-B etc.);</li> <li>- FM limitations.</li> </ul> </li> </ol>
<b>Reference documents: EASA</b>		<ul style="list-style-type: none"> <li>- 21.A.174(b)2(iii), (b)3(ii)</li> <li>- 21.A.204(b)1(ii), (b)2(i)</li> <li>- M.A.305, AMC M.A.305(d)</li> <li>- M.A.710(a)2</li> <li>- M.A.710(c)2</li> <li>- AMC M.A.710(a)1</li> <li>- AMC M.A.901(d) and (g)</li> <li>- AMC M.A.902(b)3</li> <li>- AMC M.A.904(a)(2) points 2(c) and 2(k)</li> <li>- AMC M.A.904(b) point (c)</li> </ul>

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

*APPENDICES TO AMC AND GM*

<b>B.3</b>	<b>Mass &amp; balance</b>	Mass and balance data is required to make sure the aircraft is capable of operating within the approved envelope.
<b>Supporting information</b>		<b>Typical inspection items</b>
The mass and balance report needs to reflect the actual configuration of the aircraft. When it does not, the aircraft might be operated outside the certified operating envelope.		<ol style="list-style-type: none"> <li>1. Check that mass and balance report is valid, considering current configuration.</li> <li>2. Make sure that modifications and repairs are taken into account in the report.</li> <li>3. Check that equipment status is recorded on the mass and balance report.</li> <li>4. Compare current mass and balance report with previous report for consistency.</li> </ol>
<b>Reference documents: EASA</b>		<ul style="list-style-type: none"> <li>- M.A.305(d)5</li> <li>- M.A.708(b)(10)</li> <li>- M.A.710(a)(9), AMC M.A.710(a)1</li> <li>- Part-CAT: CAT.POL.MAB.100 and related AMCs/GM</li> </ul>

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**APPENDICES TO AMC AND GM**

<b>B.4</b>	<b>Markings &amp; placards</b>	Markings and placards are defined in the individual aircraft type design. Some information may also be found in the TCDS, the Supplemental Type Certificates (STC), the FM, the AMM, the IPC, etc.
<b>Supporting information</b>		<b>Typical inspection items</b>
<p>Markings and placards on instruments, equipment, controls, etc. shall include such limitations or information as necessary for the direct attention of the crew during flight.</p> <p>Markings and placards or instructions shall be provided to give any information that is essential to the ground handling in order to preclude the possibility of mistakes in ground servicing (e.g. towing, refuelling) that could pass unnoticed and that could jeopardise the safety of the aircraft in subsequent flights.</p> <p>Markings and placards or instructions shall be provided to give any information essential in the prevention of passenger injuries.</p> <p>National registration markings must be installed. They include registration, possible flag, fireproof registration plate.</p> <p>Product data plates must be installed.</p> <p>When markings and placards are missing, or unreadable, or not properly installed, mistakes or aircraft damages may occur and could subsequently contribute to a severe failure.</p>		<ol style="list-style-type: none"> <li>1. Check that the required markings and placards are installed on the aircraft, especially the emergency exit markings instructions and passenger information signs and placards.</li> <li>2. Check that all installed placards are readable.</li> <li>3. Check the Flight Manual versus the instruments. (General Aviation usually).</li> <li>4. Check registration markings, including State of Registry fireproof nameplate.</li> <li>5. Check product data plates.</li> </ol> <p>Examples of markings &amp; placards:</p> <ul style="list-style-type: none"> <li>- door means of opening,</li> <li>- each compartment's weight/load limitation/placards stating limitation on contents,</li> <li>- passenger information signs, including no smoking signs,</li> <li>- emergency exit marking,</li> <li>- pressurised cabin warning,</li> <li>- calibration placards,</li> <li>- cockpit placards and instrument markings,</li> <li>- O<sup>2</sup> system information data,</li> <li>- accesses to the fuel tanks with flammability reduction means (CDCCL),</li> <li>- fuelling markings (fuel vent, fuel dip stick markings),</li> <li>- EWIS identification,</li> <li>- towing limit markings,</li> <li>- break-in markings,</li> </ul>

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**APPENDICES TO AMC AND GM**

	<ul style="list-style-type: none"><li>- inflate tyres with nitrogen,</li><li>- RVSM + static markings.</li></ul>
<b>Reference documents: EASA</b>	<ul style="list-style-type: none"><li>- 21.A.175</li><li>- 21.A.715</li><li>- 21.A.801</li><li>- 21.A.803</li><li>- 21.A.804</li><li>- 21.A.805</li><li>- 21.A.807</li><li>- relevant CS for the aircraft type being inspected</li><li>- M.A.501</li><li>- M.A.710(c)</li><li>- AMC M.A.504(e)</li><li>- AMC M.A.603(c)</li><li>- AMC M.A.904(a)(2) points 2(f) &amp; 2(k)</li></ul>

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

*APPENDICES TO AMC AND GM*

<b>B.5</b>	<b>Operational requirements</b>	Requirements for the type of operation are complied with (e.g. equipment, documents, approvals).
<b>Supporting information</b>		<b>Typical inspection items</b>
<p>This includes all equipment required by the applicable operational code including national requirements.</p> <p>In case of malfunction, it can create a hazardous situation. Especially emergency equipment needs attention during this inspection.</p>		<ol style="list-style-type: none"> <li>1. Check permits &amp; approvals required for type of operation.</li> <li>2. Check for the presence and serviceability of equipment required by operational approvals.</li> <li>3. Check safety equipment, check that emergency equipment is readily accessible.</li> </ol>
<b>Reference documents: EASA</b>		<ul style="list-style-type: none"> <li>- M.A.201(a)(2)</li> <li>- Part-21 Subpart I</li> <li>- Part-CAT, Subpart D 'Instruments, Data and Equipment'.</li> </ul>

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**APPENDICES TO AMC AND GM**

<b>B.6</b>	<b>Defect management</b>	<p>Defect management requires a system whereby information on faults, malfunctions, defects and other occurrences that cause or might cause adverse effects on the continuing airworthiness of the aircraft is captured. This system should be properly documented.</p> <p>It includes, amongst others, the MEL system, the CDL system and deferred defects management.</p>
<b>Supporting information</b>		<b>Typical inspection items</b>
<p>This KRE addresses the effectiveness of defect management, it should also consider defects found during the physical inspection.</p>		<ol style="list-style-type: none"> <li>1. Check that the deferred defects have been identified, recorded, and rectified/deferred in accordance with approved procedures and within approved time limits.</li> <li>2. Check that operations outside published approved data have only been performed under a Permit to Fly or under flexibility provisions (Regulation (EC) No 216 Article 14). Sample on:             <ol style="list-style-type: none"> <li>a. TLB and hold item list,</li> <li>b. maintenance task cards,</li> <li>c. engine shop report,</li> <li>d. (major) component shop report,</li> <li>e. maintenance/repair/modification working party files after embodiment of modifications or repairs,</li> <li>f. occurrence reporting data,</li> <li>g. communications between the user of maintenance data and the maintenance data author in case of inaccurate, incomplete, ambiguous procedures and practices.</li> </ol> </li> <li>3. Check that the consequences of the deferral have been managed with Operation/Crew.</li> <li>4. Check that defects are being deferred in accordance with approved data (current revision of the MEL, CDL, aircraft maintenance programme).</li> <li>5. Compare physical location of parts/serial numbers with recorded locations to identify undocumented parts swaps for troubleshooting.</li> </ol>
<b>Reference documents: EASA /EU</b>		<ul style="list-style-type: none"> <li>- M.A.301(2)</li> <li>- AMC M.A.301-2</li> <li>- M.A.403</li> <li>- AMC M.A.710(a)</li> </ul>

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

*APPENDICES TO AMC AND GM*

- |  |   |
|--|---|
|  | <ul style="list-style-type: none"><li>- 145.A.60</li><li>- 145.A.45(c)</li><li>- AMC 20-8</li><li>- Regulation (EU) No 376/2014</li></ul> |
|--|---|

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**APPENDICES TO AMC AND GM**

<b>C.1</b>	<b>Aircraft Maintenance Programme</b>	A document which describes the specific scheduled maintenance tasks and their frequency of completion, related standard maintenance practices and the associated procedures necessary for the safe operation of those aircraft to which it applies.
<b>Supporting information</b>		<b>Typical inspection items</b>
<p>The Aircraft Maintenance Programme (AMP) is intended to include scheduled maintenance tasks, the associated procedures and standard maintenance practises. It also includes the reliability programme, when required.</p> <p>Tasks included in the maintenance programme can originate from:</p> <ul style="list-style-type: none"> <li>- tasks for which compliance is <u>mandatory</u>: instructions specified in repetitive Airworthiness Directives (AD), or in the Airworthiness Limitations Section (ALS), which may include Certification Maintenance Requirements (CMRs). The ALS is included in the Instructions for Continuing Airworthiness (ICA) of a design approval holder;</li> <li>- tasks for which compliance is <u>recommended</u>: additional instructions specified in the Maintenance Review Board Report (MRBR), the Maintenance Planning Document (MPD), Service Bulletins (SB), or any other non-mandatory continuing airworthiness information issued by the design approval holder;</li> <li>- additional or alternative instructions proposed by the owner or the continuing airworthiness management organisation once approved in accordance with point M.A.302(d)(iii);</li> </ul> <p>The AMP shall contain details, including frequency, of all maintenance to be carried out, including any specific tasks linked to the type and the specificity of operations.</p>		<p><b>Review of AMP contents:</b></p> <ol style="list-style-type: none"> <li>1. Check that the AMP properly reflects mandatory continuing airworthiness instructions (ALLs, CMRs (the latest source documents' revision. Sample check that tasks are implemented within approved compliance times and that no tasks have been omitted.</li> <li>2. Check how recommended scheduled maintenance tasks (such as TBO intervals, recommended through Service Bulletins, Service Letters, etc..., the latest source documents' revision) are considered when updating the AMP. If applicable, check embodiment policy as required by M.A.301 point 7.</li> <li>3. Check that the AMP properly reflects the maintenance tasks specified in repetitive ADs.</li> <li>4. Check that the AMP properly reflects additional instructions for continuing airworthiness resulting from specific installed equipment or modifications embodied.</li> <li>5. Check that the AMP properly reflects additional instructions for continuing airworthiness resulting from repairs embodied.</li> <li>6. If applicable, check that the AMP properly reflects additional maintenance tasks required by specific approvals (e.g. RVSM, ETOPS, MNPS, B-RNAV).</li> <li>7. Check for any additional scheduled maintenance measures required due to the use of the aircraft and the operational environment.</li> <li>8. If applicable, check for proper identification of pilot-owner maintenance tasks and identification of the pilot-owner(s) or the alternative procedure described in AMC M.A.803 point 3.</li> <li>9. Check approval status of additional or alternative instructions (M.A.302(d)(iii)).</li> <li>10. Check if a reliability programme is present and active when required.</li> </ol> <p><b>Review of aircraft compliance with an AMP:</b></p>



**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**APPENDICES TO AMC AND GM**

	<ol style="list-style-type: none"><li>11. Check if the AMP used is valid for the aircraft, is approved and is amended correctly.</li><li>12. Check if tasks are performed within the value(s) quoted in AMP and the source documents</li><li>13. Sample check that no task has been omitted without justifications accepted by the Competent Authority (at the time of decision).</li><li>14. Check the reporting of performed scheduled maintenance into the records system.</li><li>15. Analyse the effectiveness of the AMP and reliability by reviewing the unscheduled tasks.</li></ol>
<b>Reference documents: EASA</b>	<ul style="list-style-type: none"><li>- M.A.302 and its AMC.</li><li>- M.A.708(b)(1), (b)(2) and (b)(4)</li><li>- M.A.803 and its AMC</li></ul>

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**APPENDICES TO AMC AND GM**

<b>C.2</b>	<b>Component control</b>	<p>The component control should consider a twofold objective for components maintenance:</p> <ul style="list-style-type: none"> <li>- maintenance for which compliance is mandatory.</li> <li>- maintenance for which compliance is recommended.</li> </ul>
<b>Supporting information</b>		<b>Typical inspection items</b>
<p>Depending on each maintenance task, accomplishment is <u>scheduled</u> or <u>unscheduled</u>. Refer to KRE C.1 'Aircraft Maintenance Programme'.</p> <p>Components affected by scheduled maintenance:</p> <p>Life-limited components are of two types:</p> <ul style="list-style-type: none"> <li>- components subject to a certified life limit;</li> <li>- components subject to a service life limit.</li> </ul> <p>Components with a certified life-limit must be <u>permanently</u> removed from service when, or before, their operating limitation is exceeded. The life limitation is controlled at the component level (in opposition to aircraft level).</p> <p>Components subject to a service life ('time controlled components') include the following:</p> <ul style="list-style-type: none"> <li>- components for which removal and restoration are scheduled, regardless of their level of failure resistance. Reference is made to hard time components: They are subject to periodic maintenance dealing with a deterioration that is assumed to be <u>predictable</u> (the overall reliability invariably decreases with age): Failure is less likely to occur before restoration is necessary;</li> <li>- components for which failure resistance can reduce and drop below a defined level: Inspections are scheduled to detect potential failures. Reference is made to 'On-condition' components: They are called such because components, which are inspected, are left in service (no further maintenance action taken) on the condition that they continue to meet specified performance standards.</li> </ul>		<ol style="list-style-type: none"> <li>1. Check that the mandatory maintenance tasks are identified as such and managed separately from recommendations.</li> <li>2. Sample check installed components (PN and SN) against aircraft records:             <ol style="list-style-type: none"> <li>a. Correct Part Number and Serial Number installed.</li> <li>b. Correct authorised release document available.</li> </ol> </li> <li>3. Check the current status of time-controlled components, with due consideration to deferred items. They must identify:             <ol style="list-style-type: none"> <li>a. The affected components (Part Number and Serial Number).</li> <li>b. For components subject to a repetitive task: the task description and reference, the applicable threshold/interval, the last accomplishment data (date, the component's total accumulated life in Hours, Cycles, Landings, Calendar time, as necessary) and the next planned accomplishment data.</li> <li>c. For components subject to an unscheduled task: the task description and reference, the accomplishment data (date, the component's total accumulated life in Hours, Cycles, Landings, Calendar time, as necessary). Pay attention to ETOPS and CDCCL components.</li> </ol> </li> <li>4. Check current status of life-limited components. This status can be requested upon each transfer throughout the operating life of the part:             <ol style="list-style-type: none"> <li>a. The life limitation, the component's total accumulated life, and the life remaining before the component's life limitation is reached (indicating Hours, Cycles, Landings, Calendar time, as necessary).</li> <li>b. If relevant for the determination of the remaining life, a full installation history indicating the number of hours, cycles or calendar time relevant to each installation on these different types of aircraft/engine.</li> </ol> </li> </ol>

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**APPENDICES TO AMC AND GM**

<p>Notes:</p> <ol style="list-style-type: none"><li>1. Restoration tasks for hard time components are not the same as 'On-condition' tasks, since they do not monitor <u>gradual</u> deterioration, but are primarily done to ensure the item may continue to remain in service until the next planned restoration.</li><li>2. Components subject to 'condition-monitoring' are permitted to remain in service without preventive maintenance until functional failure occurs. Reference is made to 'fly-to-failure'. Such components are subject to unscheduled tasks.</li></ol>	<ol style="list-style-type: none"><li>5. Check if the aircraft maintenance programme and reliability programme results impact the component control.</li><li>6. Check that life-limited and time controlled components are correctly marked during a physical survey.</li></ol>
<p><b>Reference documents: EASA</b></p>	<ul style="list-style-type: none"><li>- 21.A.805</li><li>- M.A.302</li><li>- M.A.305</li><li>- M.A.501</li><li>- M.A.503</li><li>- M.A.710</li></ul>

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**APPENDICES TO AMC AND GM**

<b>C.3</b>	<b>Repairs</b>	<p>All repairs and unrepaired damage/degradations need to comply with the instructions of the appropriate maintenance manual (e.g. the SRM, the AMM, the CMM). With the exception of repairs contained in the certification specifications referred to in Part 21 point 21A.90B or 21A.431B of the Annex (Part 21), all repairs not defined in the appropriate maintenance manual need to be appropriately approved and recorded with the reference to the approval.</p> <p>This includes any damage or repairs to the aircraft/engine(s)/propeller(s), and their components.</p>
<b>Supporting information</b>		<b>Typical inspection items</b>
<p>The data substantiating repairs should include, but is not limited to, the damage assessment, the rationale for the classification of the repair, the evidence the repair has been designed in accordance with approved data, i.e. by reference to the appropriate manual, procedure or to a Part 21 repair design approval, the drawings/material and accomplishment instructions, as well as the maintenance and operational instructions.</p> <p>‘Repair status’ means a list of:</p> <ul style="list-style-type: none"> <li>- the repairs embodied since the original delivery of (and still existent upon) the aircraft/engine/propeller/component; and</li> <li>- the un-repaired damage/degradations.</li> </ul> <p>It also includes, either directly or by reference to supporting documentation (i.e. repair files), the substantiating data supporting compliance with the applicable airworthiness requirements.</p> <p>The repair status should identify the repair file reference, the repair classification, the repaired item (i.e. aircraft/engine/propeller/component, and a precise location if necessary), and the date and total life in FH/FC accumulated by the item at the time of repair or finding of the un-repaired damage/degradations. Cross-reference to the aircraft maintenance programme should also be included, as necessary.</p> <p>Depending on the product State of Design, Bilateral Agreements and/or Agency Decisions on acceptance of certification findings exist and should</p>		<ol style="list-style-type: none"> <li>1. Sample the repair <u>status</u> to confirm it appropriately traces repairs and un-repaired damage/deteriorations.</li> <li>2. Sample repair <u>files</u> (at least one file for each type of repaired items) to check that repaired and unrepaired damage/deterioration have been assessed against the latest published approved repair data.</li> <li>3. Check that repair instructions detailed in the repair file comply with published approved repair data.</li> <li>4. Check that major repairs resulting in new or amended airworthiness limitations and associated mandatory instructions (including ageing aircraft programme) have been included in the aircraft maintenance programme.</li> <li>5. Check that new or amended maintenance instructions resulting from repairs have been considered for inclusion in the aircraft maintenance programme.</li> <li>6. Compare the repair status and the physical status of the repaired aircraft/engine(s)/propeller(s), and their repaired components (physical survey) in order to confirm the accuracy of the repair status. Sample embodied repairs to check their conformity against the repair files (physical survey).</li> </ol>

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

*APPENDICES TO AMC AND GM*

be taken into account for the determination of acceptable data for repairs.	
<b>Reference documents: EASA</b>	<ul style="list-style-type: none"><li>- 21.A.431A</li><li>- 21.A.431B</li><li>- M.A.304</li><li>- AMC M.A.304</li><li>- M.A.305</li><li>- AMCs M.A.305</li><li>- M.A.401</li><li>- AMCs M.A.401</li></ul>

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

*APPENDICES TO AMC AND GM*

<b>C.4</b>	<b>Records</b>	Continuing Airworthiness records are defined in M.A.305 and M.A.306 and related AMCs.
<b>Supporting information</b>		<b>Typical inspection items</b>
<p>Retention/Transfer of the records is required so that the status of the aircraft and its components can be readily established at any time.</p> <p>Task accomplishment is scheduled (one time or periodically), or unscheduled (e.g. following an event). Aircraft continuing airworthiness records (refer to logbooks, technical logbooks, component log cards or task cards) shall provide the status with regard to:</p> <ul style="list-style-type: none"> <li>- scheduled tasks: <ul style="list-style-type: none"> <li>- one-time: life-limited parts status, modification status, repair status.</li> <li>- repetitive: maintenance programme status.</li> </ul> </li> <li>- unscheduled tasks.</li> </ul>		<ol style="list-style-type: none"> <li>1. Check the aircraft continuing airworthiness record system: M.A.305 and M.A.306, as applicable, require that certain records are kept for defined periods. Pay attention to the continuity, integrity and traceability of records: <ol style="list-style-type: none"> <li>a. integrity: Check the data recorded is legible,</li> <li>b. continuity: Check that records are available for the applicable retention period,</li> <li>c. traceability: Check the link between operator/CAMO and maintenance documentation, traceability to approved data, traceability to appropriate release documents, etc.</li> </ol> </li> <li>2. If applicable, make sure that the tech log system is used correctly, including: <ol style="list-style-type: none"> <li>a. current aircraft release to service (including the maintenance statement) issued and</li> <li>b. pre-flight inspections signed-off by authorised persons;</li> </ol> </li> <li>3. Check that any maintenance required following abnormal operation/event (such as overspeed, overweight operation, hard landing, excessive turbulence, and operation outside of Flight Manual limitations) has been performed, as applicable.</li> </ol>
<b>Reference documents: EASA</b>		<ul style="list-style-type: none"> <li>- M.A.305</li> <li>- M.A.306</li> <li>- M.A.307</li> <li>- M.A.801</li> <li>- AMCs M.A.305</li> <li>- AMCs M.A.306</li> <li>- AMC M.A.307</li> </ul>

Abbreviations used:

A/C	Aircraft
ACAM	Aircraft Continuous Airworthiness Monitoring
AD	Airworthiness Directive
ALI	Airworthiness Limitation Items
ALS	Airworthiness Limitations Section
AMM	Aircraft Maintenance Manual
AMP	Aircraft Maintenance Programme
APU	Auxiliary Power Unit
ASM	Ageing Systems Maintenance
B-RNAV	Basic Area Navigation
CAMO	Continuing Airworthiness Management Organisation
CDL	Configuration Deviation List
CDCCL	Critical Design Configuration Control Limitations
CMM	Component Maintenance Manual
CMR	Certification Maintenance Requirement
DT	Damage Tolerant
ED	Executive Director of EASA
ETOPS	Extended Range Operations with Two-engined aeroplanes
ETSO	European Technical Standard Order
EWIS	Electrical Wiring Interconnection System
EZAP	Enhanced Zonal Analysis Procedure
FCOM	Flight Crew Operations Manual
FDR	Flight Data Recorder
FM	Flight Manual
FRM	Flammability Reduction Means
FTIP	Fuel Tank Ignition Prevention
GA	General Aviation
ICA	Instructions for Continuing Airworthiness
IPC	Illustrated Parts Catalogue
KRE	Key Risk Element
LHIRF	Lightning High Intensity Radiated Field
LOPA	Layout of Passenger Accommodation
MCAI	Mandatory Continuing Airworthiness Information
MEL	Minimum Equipment List
MNPS	Minimum Navigation Performance Specification
MRB	Maintenance Review Board
MRBR	Maintenance Review Board Report
MPD	Maintenance Planning Document

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**APPENDICES TO AMC AND GM**

NAA	National Aviation Authority
OEM	Original Equipment Manufacturer
OM	Operations Manual
OM-B	Operations Manual Part-B
PN	Part Number
QRH	Quick Reference Handbook
PWR	Power
RVSM	Reduced Vertical Separation Minima
SN	Serial Number
SB	Service Bulletin
SM	Service Manual
SRM	Structural Repair Manual
STC	Supplemental Type Certificate
TBO	Time Between Overhauls
TC	Type Certificate
TCDS	Type Certificate Data Sheet
TLB	Technical Logbook
TSO	Technical Standard Order



**Appendix IV to AMC M.A.604 Maintenance organisation manual**

**1. Purpose**

The maintenance organisation manual is the reference for all the work carried out by the approved maintenance organisation. It should contain all the means established by the organisation to ensure compliance with Part-M according to the extent of approval and the privileges granted to the organisation.

The maintenance organisation manual should define precisely the work that the approved maintenance organisation is authorised to carry out and the subcontracted work. It should detail the resources used by the organisation, its structure and its procedures.

**2. Content**

A typical Maintenance Organisation Manual for a small organisation (less than 10 maintenance staff) should be designed to be used directly on a day to day basis. The working documents and lists should be directly included into the manual. It should contain the following:

Part A. — General

- **Table of contents**
- **List of effective pages**
- **Record of amendments**
- **Amendment procedure**
  - Drafting
  - Amendments requiring direct approval by the competent authority
  - Approval
- **Distribution**
  - Name or title of each person holding a copy of the manual
- **Accountable manager statement**
  - Approval of the manual
  - Statement that the maintenance organisation manual and any incorporated document identified therein reflect the organisation's means of compliance with Part-M
  - Commitment to work according to the manual
  - Commitment to amend the manual when necessary

Part B — Description

- **Organisation's scope of work**
  - Description of the work carried out by the organisation (type of product, type of work) and subcontracted work
  - Identification of the level of work which can be performed at each facility.
- **General presentation of the organisation**

- Legal name and social status
- **Name and title of management personnel**
  - Accountable manager
  - Senior managers
  - Duties and responsibilities
- **Organisation chart**
- **Certifying staff and airworthiness review staff**
  - Minimum qualification and experience
  - List of authorised certifying staff and airworthiness review staff, their scope of qualification and the personal authorisation reference
- **Personnel**
  - Technical personnel (number, qualifications and experience)
  - Administrative personnel (number)
- **General description of the facility**
  - Geographical location (map)
  - Plan of hangars
  - Specialised workshops
  - Office accommodation
  - Stores
  - Availability of all leased facilities.
- **Tools, equipment and material**
  - List of tools, equipment and material used (including access to tools used on occasional basis)
  - Test apparatus
  - Calibration frequencies
- **Maintenance data**
  - List of maintenance data used in accordance with M.A.402, and appropriate amendment subscription information (including access to data used on occasional basis).

Part C — General Procedures

- **Organisational review**
  - Purpose (to insure that the approved maintenance organisation continues to meet the requirements of Part-M)
  - Responsibility

- Organisation, frequency, scope and content (including processing of authority's findings)
- Planning and performance of the review
- Organisational review checklist and forms
- Processing and correction of review findings
- Reporting
- Review of subcontracted work
- **Training**
  - Description of the methods used to ensure compliance with the personnel qualification and training requirements (certifying staff training, specialised training)
  - Description of the personnel records to be retained
- **Subcontracting of specialised services**
  - Selection criteria and control
  - Nature of subcontracted work
  - List of subcontractors
  - Nature of arrangements
  - Assignment of responsibilities for the certification of the work performed
- **One time authorisations**
  - Maintenance checks
  - Certifying staff

Part D — Working Procedures

- **Work order acceptance**
- **Preparation and issue of the work package**
  - Control of the work order
  - Preparation of the planned work
  - Work package content (copy of forms, work cards, procedure for their use, distribution)
  - Responsibilities and signatures needed for the authorisation of the work
- **Logistics**
  - Persons/functions involved
  - Criteria for choosing suppliers
  - Procedures used for incoming inspection and storage of parts, tools and materials
  - Copy of forms and procedure for their use and distribution
- **Execution**

- Persons/functions involved and respective role
  - Documentation (work package and work cards)
  - Copy of forms and procedure for their use and distribution
  - Use of work cards or manufacturer's documentation
  - Procedures for accepting components from stores including eligibility check
  - Procedures for returning unserviceable components to stores
- **Release to Service – Certifying staff**
- Authorised certifying staff functions and responsibilities
- **Release to Service – Supervision**
- Detailed description of the system used to ensure that all maintenance tasks, applicable to the work requested of the approved maintenance organisation, have been completed as required.
- Supervision content
  - Copy of forms and procedure for their use and distribution
  - Control of the work package
- **Release to Service – Certificate of release to service**
- Procedure for signing the CRS (including preliminary actions)
  - Certificate of release to service wording and standardised form
  - Completion of the aircraft continuing airworthiness record system
  - Completion of EASA Form 1
  - Incomplete maintenance
  - Check flight authorisation
  - Copy of CRS and EASA Form 1
- **Records**
- **Airworthiness review procedures and records for ELA1 aircraft not involved in commercial operations**
- **Development and approval processing for maintenance programmes for ELA2 aircraft not involved in commercial operations**
- **Special procedures**
- Such as specialised tasks, disposal of unsalvageable components, re-certification of parts not having an EASA Form 1, etc.
- **Occurrence reporting**
- Occurrences to be reported
  - Timeframe of reports

- Information to be reported
- Recipients
- **Management of indirect approval of the manual**
  - Amendments content eligible for indirect approval
  - Responsibility
  - Traceability
  - Information to the competent authority
  - Final validation

Part E – Appendices

- Sample of all documents used.
- List of maintenance locations.
- List of Part 145 or M.A. Subpart F organisations.
- List of subcontracted specialised services.

**3. Approval**

The competent authority should approve the manual in writing. This will normally be done by approving a list of effective pages.

Minor amendments, or amendments to a large capability list, can be approved indirectly, through a procedure approved by the member state.

**4. Continuous compliance with Part-M**

When a maintenance organisation manual no longer meets the requirements of this Part-M, whether through a change in Part-M, a change in the organisation or its activities, or through an inadequacy shown to exist by verification inspections conducted under the organisational review, or any other reason that affects the manuals conformity to requirements, the approved maintenance organisation is responsible to prepare and have approved an amendment to its manual.

**5. Distribution**

The manual describes how the organisation works therefore the manual or relevant parts thereof need to be distributed to all concerned staff in the organisation and contracted organisations.

**Appendix V to AMC M.A.704 Continuing airworthiness management exposition**

**CONTINUING AIRWORTHINESS MANAGEMENT EXPOSITION**

**TABLE OF CONTENT**

<b>Part 0</b>	<b>General organisation</b>
0.1	Corporate commitment by the accountable manager.
0.2	General information.
0.3	Management personnel.
0.4	Management organisation chart.
0.5	Notification procedure to the competent authority regarding changes to the organisation's activities / approval / location / personnel.
0.6	Exposition amendment procedures.
<b>Part 1</b>	<b>Continuing airworthiness management procedures</b>
1.1	Aircraft technical log utilisation and MEL application (commercial air transport). Aircraft continuing airworthiness record system utilisation (non-commercial air transport).
1.2	Aircraft maintenance programmes – development amendment and approval.
1.3	Time and continuing airworthiness records, responsibilities, retention, access.
1.4	Accomplishment and control of airworthiness directives.
1.5	Analysis of the effectiveness of the maintenance programme(s).
1.6	Non mandatory modification embodiment policy.
1.7	Major repair and modification standards.
1.8	Defect reports.
1.9	Engineering activity.
1.10	Reliability programmes.
1.11	Pre-flight inspections.
1.12	Aircraft weighing.
1.13	Check flight procedures.
<b>Part 2</b>	<b>Quality system</b>
2.1	Continuing airworthiness quality policy, plan and audits procedure.
2.2	Monitoring of continuing airworthiness management activities.
2.3	Monitoring of the effectiveness of the maintenance programme(s).

- 2.4 Monitoring that all maintenance is carried out by an appropriate maintenance organisation.
- 2.5 Monitoring that all contracted maintenance is carried out in accordance with the contract, including sub-contractors used by the maintenance contractor.
- 2.6 Quality audit personnel.

**Part 3 Contracted Maintenance**

- 3.1 Maintenance contractor selection procedure.
- 3.2 Quality audit of aircraft.

**Part 4 Airworthiness review procedures**

- 4.1 Airworthiness review staff.
- 4.2 Review of aircraft records.
- 4.3 Physical survey.
- 4.4 Additional procedures for recommendations to competent authorities for the import of aircraft.
- 4.5 Recommendations to competent authorities for the issue of ARC.
- 4.6 Issuance of ARC.
- 4.7 Airworthiness review records, responsibilities, retention and access.

**Part 4B Permit to fly procedures**

- 4B.1 Conformity with approved flight conditions;
- 4B.2 Issue of the permit to fly under the CAMO privilege;
- 4B.3 Permit to fly authorised signatories;
- 4B.4 Interface with the local authority for the flight;
- 4B.5 Permit to fly records, responsibilities, retention and access.

**Part 5 Appendices**

- 5.1 Sample documents;
- 5.2 List of airworthiness review staff;
- 5.3 List of subcontractors as per AMC M.A.201(h)1 and M.A.711(a)3;
- 5.4 List of approved maintenance organisations contracted;
- 5.5 Copy of contracts for subcontracted work (Appendix II to AMC M.A.201(h)1)
- 5.6 Copy of contracts with approved maintenance organisations.



**LIST OF EFFECTIVE PAGES**

Page	Revision
1	Original
2	Original

Page	Revision
3	Original
4	Original

Page	Revision
5	Original
....	....

**DISTRIBUTION LIST**

*(The document should include a distribution list to ensure proper distribution of the manual and to demonstrate to the competent authority that all personnel involved in continuing airworthiness has access to the relevant information. This does not mean that all personnel have to be in receipt of a manual but that a reasonable amount of manuals are distributed within the organisation(s) so that the concerned personnel may have quick and easy access to this manual.*

*Accordingly, the continuing airworthiness management exposition should be distributed to:*

- the operator's or the organisation's management personnel and any person at a lower level as necessary; and,*
- the Part-145 or M.A. Subpart F contracted maintenance organisation(s) ; and,*
- the competent authority.)*

**PART 0 GENERAL ORGANISATION**

**0.1 Corporate commitment by the accountable manager**

*(The accountable manager's exposition statement should embrace the intent of the following paragraph and in fact this statement may be used without amendment. Any modification to the statement should not alter the intent.)*

This exposition defines the organisation and procedures upon which the M.A. Subpart G approval of Joe Bloggs under Part-M is based.

These procedures are approved by the undersigned and must be complied with, as applicable; in order to ensure that all the continuing airworthiness activities including maintenance for aircraft managed by Joe Bloggs is carried out on time to an approved standard.

It is accepted that these procedures do not override the necessity of complying with any new or amended regulation published by the Agency or the competent authority from time to time where these new or amended regulations are in conflict with these procedures.

The competent authority will approve this organisation whilst the competent authority is satisfied that the procedures are being followed. It is understood that the competent authority reserves the right to suspend, vary or revoke the M.A. Subpart G continuing airworthiness management approval of the organisation, as applicable, if the competent authority has evidence that the procedures are not followed and the standards not upheld.

In the case of commercial air transport, suspension or revocation of the approval of the Part M Subpart G continuing airworthiness management approval would invalidate the AOC.

**0.2 General Information**

a) Brief description of the organisation

*(This paragraph should describe broadly how the whole organisation [i.e. including the whole operator in the case of commercial air transport or the whole organisation when other approvals are held] is organised under the management of the accountable manager, and should refer to the organisation charts of paragraph 0.4.)*

b) Relationship with other organisations

*(This paragraph may not be applicable to every organisation.)*

**(1) Subsidiaries/mother company**

*(For clarity purpose, where the organisation belongs to a group, this paragraph should explain the specific relationship the organisation may have with other members of that group - e.g. links between Joe Bloggs Airlines, Joe Bloggs Finance, Joe Bloggs Leasing, Joe Bloggs Maintenance, etc...)*

**(2) Consortiums**

*(Where the organisation belongs to a consortium, it should be indicated here. The other members of the consortium should be specified, as well as the scope of organisation of the consortium [e.g. operations, maintenance, design (modifications and repairs), production etc...]. The reason for specifying this is that consortium maintenance may be controlled through specific contracts and through consortium's policy and/or procedures manuals that might unintentionally override the maintenance contracts. In addition, in respect of international consortiums, the respective competent authorities should be consulted and their agreement to*

*the arrangement clearly stated. This paragraph should then make reference to any consortium's continuing airworthiness related manual or procedure and to any competent authority agreement that would apply.)*

c) Aircraft managed – Fleet composition

*(This paragraph should quote the aircraft types and the number of aircraft of each type. The following is given as an example :)*

Joe Bloggs PLC manages, as of 28 November 2003, the following:

. 3 B737-300

. 3 B737-400

. 1 A 320-200

. 14 F27 (MK500), etc...

For commercial air transport, the fleet composition reference with the aircraft registrations is given by Joe Bloggs Airlines' current AOC (or else where e.g. in the Operation Manual, by agreement of the competent authority)

*(Depending on the number of aircraft, this paragraph may be updated as follows:*

*-1) the paragraph is revised each time an aircraft is removed from or added in the list.*

*-2) the paragraph is revised each time a type of aircraft or a significant number of aircraft is removed from or added to the list. In that case the paragraph should explain where the current list of aircraft managed is available for consultation.)*

d) Type of operation

*(This paragraph should give broad information on the type of operations such as: commercial, aerial work, non commercial, long haul/short haul/regional, scheduled/charter, regions/countries/continents flown, etc)*

**0.3 Management personnel**

a) Accountable manager

*(This paragraph should address the duties and responsibilities of the accountable manager as far as Part M.A. Subpart G is concerned and demonstrate that he has corporate authority for ensuring that all continuing airworthiness activities can be financed and carried out to the required standard.)*

b) Nominated post holder for continuing airworthiness (for commercial air transport)

*(This paragraph should:*

— *Emphasise that the nominated post holder for continuing airworthiness is responsible to ensure that all maintenance is carried out on time to an approved standard.*

— *Describe the extent of his authority as regards his Part M responsibility for continuing airworthiness.*

*This paragraph is not necessary for organisations not holding an AOC)*

c) Continuing airworthiness coordination

*(This paragraph should list the job functions that constitute the 'group of persons' as required by M.A.706(c) in enough detail so as to show that all the continuing airworthiness responsibilities as described in Part M are covered by the persons that constitute that group. In the case of small operators, where the 'Nominated Post*

holder' for continuing airworthiness constitutes himself the 'group of persons', this paragraph may be merged with the previous one.)

d) Duties and responsibilities

*(This paragraph should further develop the duties and responsibilities of:*

- *the personnel listed in paragraphs c): 'Continuing airworthiness coordination',*
- *the quality manager, as regards the quality monitoring of the maintenance system [which includes the approved maintenance organisation(s)]*

e) Manpower resources and training policy

**(1) Manpower resources**

*(This paragraph should give broad figures to show that the number of people dedicated to the performance of the approved continuing airworthiness activity is adequate. It is not necessary to give the detailed number of employees of the whole company but only the number of those involved in continuing airworthiness. This could be presented as follows:)*

As of 28 November 2003, the number of employees dedicated to the performance of the continuing airworthiness management system is the following:

	Full Time	Part Time in equivalent full time
Quality monitoring	AA	aa = AA'
Continuing airworthiness management	BB	bb = BB'
<i>(Detailed information about the</i>	BB1	bb1 = BB1'
<i>management group of persons)</i>	BB2	bb2 = BB2'
Other...	CC	cc =CC'
Total	TT	tt = TT'
Total Man hours	TT + TT'	

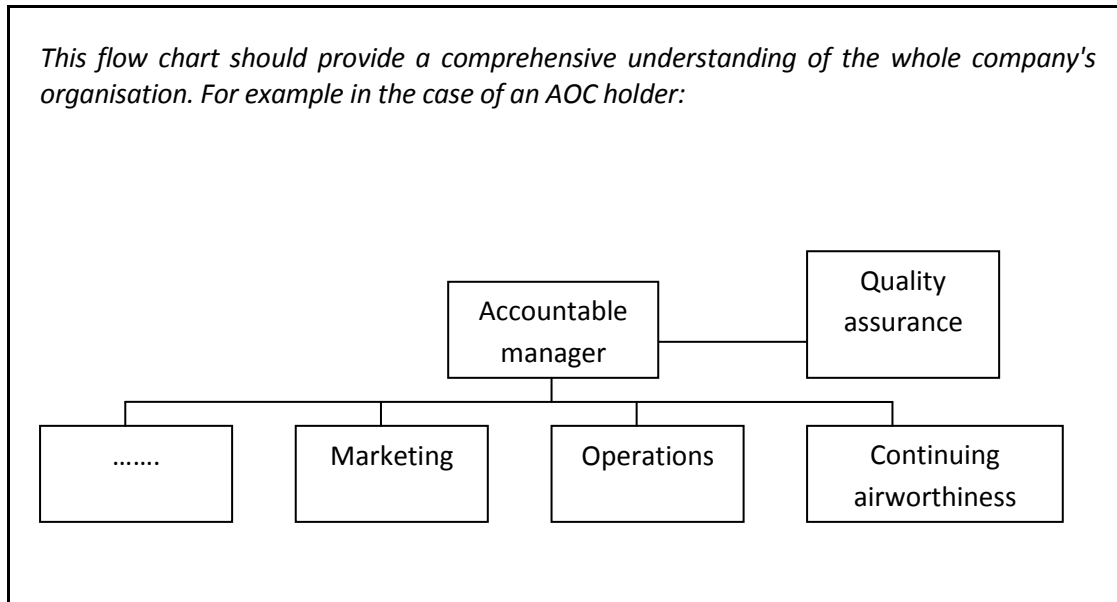
*(Note: According to the size and complexity of the organisation, this table may be further developed or simplified)*

**(2) Training policy**

*(This paragraph should show that the training and qualification standards for the personnel quoted above are consistent with the size and complexity of the organisation. It should also explain how the need for recurrent training is assessed and how the training recording and follow-up is performed)*

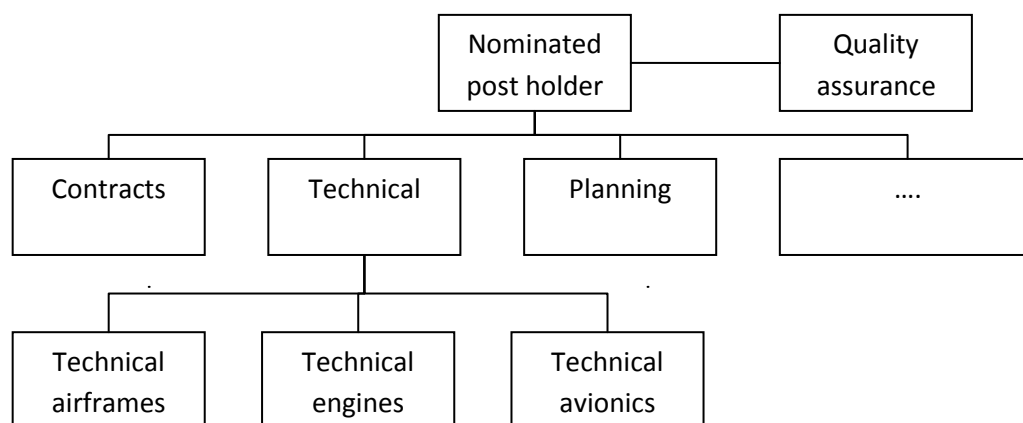
**0.4 Management organisation charts**

a) General organisation chart



b) Continuing airworthiness management organisation chart

*This flow chart should give further details on the continuing airworthiness Management system, and should clearly show the independence of the quality monitoring system, including the links between the quality assurance department and the other departments (see example below). This flow chart may be combined with the one above or subdivided as necessary, depending on the size and the complexity of the organisation. For example in the case of an AOC holder:*



**0.5 Notification procedure to the competent authority regarding changes to the organisation's activities / approval / location / personnel**

*(This paragraph should explain in which occasion the company should inform the competent authority prior to incorporating proposed changes; for instance:*

*The accountable manager (or any delegated person such as the engineering director or the quality manager) will notify to the competent authority any change concerning:*

- (1) the company's name and location(s)*
- (2) the group of person as specified in paragraph 0.3.c)*

*(3) operations, procedures and technical arrangements, as far as they may affect the approval.*

*Joe Bloggs will not incorporate such change until the change have been assessed and approved by the competent authority.)*

**0.6 Exposition amendment procedure**

*(This paragraph should explain who is responsible for the amendment of the exposition and submission to the competent authority for approval. This may include, if agreed by the competent authority the possibility for the approved organisation to approve internally minor changes that have no impact on the approval held. The paragraph should then specify what types of changes are considered as minor and major and what the approval procedures for both cases are.)*

**PART 1 CONTINUING AIRWORTHINESS MANAGEMENT PROCEDURES**

**1.1 Aircraft technical log utilisation and MEL application**

or

**1.1 Aircraft continuing airworthiness record system utilisation**

a) Aircraft technical log and/or continuing airworthiness record system

**(1) General**

*(It may be useful to remind, in this introduction paragraph, the purpose of the aircraft technical log system and/or continuing airworthiness record system, with special care to the options of M.A.305 and M.A.306. For that purpose, paragraphs of M.A.305 and M.A.306 may be quoted or further explained.)*

**(2) Instructions for use**

*(This paragraph should provide instructions for using the aircraft technical log and/or continuing airworthiness record system. It should insist on the respective responsibilities of the maintenance personnel and operating crew. Samples of the technical log and/or continuing airworthiness record system should be included in Part 5 'Appendices' in order to provide enough detailed instructions.)*

**(3) Aircraft technical log approval (For commercial air transport)**

*(This paragraph should explain who is responsible for submitting the aircraft technical log any subsequent amendment to the competent authority for approval and what is the procedure to be followed)*

b) M.E.L. application

*(Although the MEL is a document that is normally not controlled by the continuing airworthiness management system, and that the decision of whether accepting or not a MEL tolerance normally remains the responsibility of the operating crew, this paragraph should explain in sufficient detail the MEL application procedure, because the MEL is a tool that the personnel involved in maintenance have to be familiar with in order to ensure proper and efficient communication with the crew in case of a defect rectification to be deferred.)*

*(This paragraph does not apply to those types of aircraft that do not have an MEL or are not used for commercial air transport and that are not required to have one.)*

**(1) General**

*(This paragraph should explain broadly what a MEL document is. The information could be extracted from the aircraft flight manual.)*

**(2) MEL categories**

*(Where an owner/operator uses a classification system placing a time constraint on the rectification of such defect, it should be explained here what are the general principles of such a system. It is essential for the personnel involved in maintenance to be familiar with it for the management of MEL's deferred defect rectification.)*

**(3) Application**

*(This paragraph should explain how the maintenance personnel identify a MEL limitation to the crew. This should refer to the technical log procedures)*

**(4) Acceptance by the crew (For commercial air transport)**



*(This paragraph should explain how the crew notifies his acceptance or non acceptance of the MEL deferment in the technical log)*

**(5) Management of the MEL time limits**

*(After a technical limitation is accepted by the crew, the defect must be rectified within the time limit specified in the MEL. There should be a system to ensure that the defect will actually be corrected before that limit. This system could be the aircraft technical log for those [small] operators that use it as a planning document, or a specific follow-up system, in other cases, where control of the maintenance time limit is ensured by another means such as data processed planning systems.)*

**(6) MEL Time Limitation Overrun**

*(The competent authority may grant the owner/operator to overrun MEL time limitation under specified conditions. Where applicable this paragraph should describe the specific duties and responsibilities for controlling these extensions.)*

**1.2 Aircraft maintenance programmes - development and amendment**

a) General

*(This introductory paragraph should remind that the purpose of a maintenance programme is to provide maintenance planning instructions necessary for the safe operation of the aircraft.)*

b) Content

*(This paragraph should explain what is [are] the format[s] of the company's aircraft maintenance programme[s]. Appendix I to AMC M.A.302 (a) and M.B.301 (d) should be used as a guideline to develop this paragraph.)*

c) Development

**(1) Sources**

*(This paragraph should explain what are the sources [MRB, MPD, Maintenance Manual, etc.] used for the development of an aircraft maintenance programme.)*

**(2) Responsibilities**

*(This paragraph should explain who is responsible for the development of an aircraft maintenance programme)*

**(3) Manual amendments**

*(This paragraph should demonstrate that there is a system for ensuring the continuing validity of the aircraft maintenance programme. Particularly, it should show how any relevant information is used to update the aircraft maintenance programme. This should include, as applicable, MRB report revisions, consequences of modifications, manufacturers and competent authority recommendations, in service experience, and reliability reports.)*

**(4) Acceptance by the authority**

*(This paragraph should explain who is responsible for the submission of the maintenance programme to the competent authority and what the procedure to follow is. This should in particular address the issue of the competent authority approval for variation to maintenance periods. This may include, if agreed by the*

*competent authority the possibility for the approved organisation to approve internally certain changes. The paragraph should then specify what types of changes are concerned and what the approval procedures are.)*

### **1.3 Time and continuing airworthiness records, responsibilities, retention, access**

#### a) Hours and cycles recording

*(The recording of flight hours and cycles is essential for the planning of maintenance tasks. This paragraph should explain how the continuing airworthiness management organisation has access to the current flight hours and cycle information and how it is processed through the organisation.)*

#### b) Records

*(This paragraph should give in detail the type of company documents that are required to be recorded and what are the recording period requirements for each of them. This can be provided by a table or series of tables that would include the following:*

- Family of document [if necessary],*
- Name of document,*
- Retention period,*
- Responsible person for retention,*
- Place of retention,)*

#### c) Preservation of records

*(This paragraph should set out the means provided to protect the records from fire, floods, etc. as well as the specific procedures in place to guarantee that the records will not be altered during the retention period [especially for the computer record].)*

#### d) Transfer of continuing airworthiness records

*(This paragraph should set out the procedure for the transfer of records, in case of purchase/lease-in, sale/lease-out and transfer to another organisation of an aircraft. In particular, it should specify which records have to be transferred and who is responsible for the coordination [if necessary] of the transfer.)*

### **1.4 Accomplishment and control of Airworthiness Directives**

*(This paragraph should demonstrate that there is a comprehensive system for the management of airworthiness directives. This paragraph may for instance include the following Sub-paragraphs:)*

#### a) Airworthiness directive information

*(This paragraph should explain what the AD information sources are and who receives them in the company. Where available, redundant sources [e.g. agency+ competent authority + manufacturer or association] may be useful.)*

#### b) Airworthiness directive decision

*(This paragraph should explain how and by whom the AD information is analysed and what kind of information is provided to the contracted maintenance organisations in order to plan and to perform the airworthiness directive. This should as necessary include a specific procedure for emergency airworthiness directive management)*

c) Airworthiness directive control

*(This paragraph should specify how the organisation manages to ensure that all the applicable airworthiness directives are performed and that they are performed on time. This should include a close loop system that allows verifying that for each new or revised airworthiness directive and for each aircraft:*

- *the AD is not applicable or,*
- *if the AD is applicable:*
  - *the Airworthiness Directive is not yet performed but the time limit is not overdue,*
  - *the Airworthiness Directive is performed, and any repetitive inspection are identified and performed.*

*This may be a continuous process or may be based on scheduled reviews.)*

**1.5 Analysis of the effectiveness of the maintenance programme**

*(this paragraph should show what tools are used in order to analyse the efficiency of the maintenance programme, such as:*

- *PIREPS,*
- *air turn-backs*
- *spare consumption,*
- *repetitive technical occurrence and defect,*
- *technical delays analysis [through statistics if relevant],*
- *technical incidents analysis [through statistics if relevant],*
- *etc...*

*The paragraph should also indicate by whom and how these data are analysed, what is the decision process to take action and what kind of action could be taken. This may include:*

- *amendment of the maintenance programme,*
- *amendment of maintenance or operational procedures,*
- *etc...)*

**1.6 Non-mandatory modification embodiment policy**

*(This paragraph should specify how the non-mandatory modification information are processed through the organisation, who is responsible for their assessment against the operator's/owner's own need and operational experience, what are the main criteria for decision and who takes the decision of implementing [or not] a non-mandatory modification)*

**1.7 Major repair and modification standards**

*(This paragraph should set out a procedure for the assessment of the approval status of any major repair or modification before embodiment. This will include the assessment of the need of an Agency or design organisation approval. It should also identify the type of approval required, and the procedure to follow to have a repair or modification approved by the Agency or design organisation.)*

### **1.8 Defect reports**

a) Analysis

*(This paragraph should explain how the defect reports provided by the contracted maintenance organisations are processed by the continuing airworthiness management organisation. Analysis should be conducted in order to give elements to activities such as maintenance programme evolution and non mandatory modification policy.)*

b) Liaison with manufacturers and regulatory authorities

*(Where a defect report shows that such defect is likely to occur to other aircraft, a liaison should be established with the manufacturer and the certification competent authority, so that they may take all the necessary action.)*

c) Deferred defect policy

*(Defects such as cracks and structural defect are not addressed in the MEL and CDL. However, it may be necessary in certain cases to defer the rectification of a defect. This paragraph should establish the procedure to be followed in order to be sure that the deferment of any defect will not lead to any safety concern. This will include appropriate liaison with the manufacturer.)*

### **1.9 Engineering activity**

*(Where applicable, this paragraph should expose the scope of the organisation's engineering activity in terms of approval of modification and repairs. It should set out a procedure for developing and submitting a modification/repair design for approval to the Agency and include reference to the supporting documentation and forms used. It should identify the person in charge of accepting the design before submission to the Agency or the competent authority.*

*Where the organisation has a DOA capability under Part 21, it should be indicated here and the related manuals should be referred to.)*

### **1.10 Reliability programmes**

*(This paragraph should explain appropriately the management of a reliability programme. It should at least address the following:*

- extent and scope of the operator's reliability programmes,*
- specific organisational structure, duties and responsibilities,*
- establishment of reliability data,*
- analysis of the reliability data,*
- corrective action system (maintenance programme amendment),*
- scheduled reviews (reliability meetings, the participation of the competent authority.)*

*(This paragraph may be, where necessary, subdivided as follows:)*

a) Airframe

b) Propulsion

c) Component

### **1.11 Pre-flight inspections**

*(This paragraph should show how the scope and definition of pre-flight inspection, that are usually performed by the operating crew, is kept consistent with the scope of the maintenance performed by the contracted maintenance organisations. It should show how the evolution of the pre-flight inspection content and the maintenance programme are concurrent, each time necessary.)*

*(The following paragraphs are self explanatory. Although these activities are normally not performed by continuing airworthiness personnel, these paragraphs have been placed here in order to ensure that the related procedures are consistent with the continuing airworthiness activity procedures.)*

- a) Preparation of aircraft for flight
- b) Sub-contracted ground handling function
- c) Security of Cargo and Baggage loading
- d) Control of refueling, Quantity/Quality
- e) Control of snow, ice, residues from de-icing or anti-icing operations, dust and sand contamination to an approved standard

### **1.12 Aircraft weighing**

*(This paragraph should state in which occasion an aircraft has to be weighed [for instance after a major modification because of weight and balance operational requirements, etc.] who performs it, according to which procedure, who calculates the new weight and balance and how the result is processed into the organisation.)*

### **1.13 Check flight procedures**

*(The criteria for performing a check flight are normally included in the aircraft maintenance programme. This paragraph should explain how the check flight procedure is established in order to meet its intended purpose [for instance after a heavy maintenance check, after engine or flight control removal installation, etc.], and the release procedures to authorise such a check flight.)*

## **PART 2 QUALITY SYSTEM**

### **2.1 Continuing airworthiness quality policy, plan and audits procedure**

- a) Continuing airworthiness quality policy

*(This paragraph should include a formal Quality Policy statement; that is a commitment on what the Quality System is intended to achieve. It should include at the minimum monitoring compliance with Part M and any additional standards specified by the organisation.)*

- b) Quality plan

*(This paragraph should show how the quality plan is established. The quality plan will consist of a quality audit and sampling schedule that should cover all the areas specific to Part M in a definite period of time. However, the scheduling process should also be dynamic and allow for special evaluations when trends or concerns are identified. In case of sub-contracting, this paragraph should also address the planning of the auditing of subcontractors at the same frequency as the rest of the organisation.)*

- c) Quality audit procedure

*(The quality audit is a key element of the quality system. Therefore, the quality audit procedure should be sufficiently detailed to address all the steps of an audit, from the preparation to the conclusion, show the audit report format [e.g. by ref. to paragraph 5.1 "sample of document"], and explain the rules for the distribution of audits reports in the organisation [e.g.: involvement of the Quality Manager, Accountable Manager, Nominated Postholder, etc...].)*

d) Quality audit remedial action procedure

*(This paragraph should explain what system is put in place in order to ensure that the corrective actions are implemented on time and that the result of the corrective action meets the intended purpose. For instance, where this system consists in periodical corrective actions review, instructions should be given how such reviews should be conducted and what should be evaluated.)*

**2.2 Monitoring of continuing airworthiness management activities**

*(This paragraph should set out a procedure to periodically review the activities of the maintenance management personnel and how they fulfil their responsibilities, as defined in Part 0.)*

**2.3 Monitoring of the effectiveness of the maintenance programme(s)**

*(This paragraph should set out a procedure to periodically review that the effectiveness of the maintenance programme is actually analysed as defined in Part 1.)*

**2.4 Monitoring that all maintenance is carried out by an appropriate maintenance organisation**

*(This paragraph should set out a procedure to periodically review that the approval of the contracted maintenance organisations are relevant for the maintenance being performed on the operator's fleet. This may include feedback information from any contracted organisation on any actual or contemplated amendment, in order to ensure that the maintenance system remains valid and to anticipate any necessary change in the maintenance agreements.*

*If necessary, the procedure may be subdivided as follows:*

- a) Aircraft maintenance
- b) Engines
- c) Components)

**2.5 Monitoring that all contracted maintenance is carried out in accordance with the contract, including sub-contractors used by the maintenance contractor**

*(This paragraph should set out a procedure to periodically review that the continuing airworthiness management personnel are satisfied that all contracted maintenance is carried out in accordance with the contract. This may include a procedure to ensure that the system allows all the personnel involved in the contract [including the contractors and his subcontractors] to be acquainted with its terms and that, for any contract amendment, relevant information is dispatched in the organisation and at the contractor.)*

**2.6 Quality audit personnel**

*(This paragraph should establish the required training and qualification standards of auditors. Where persons act as a part time auditor, it should be emphasized that this person must not be directly involved in the activity he/she audits.)*

### **3.1 Maintenance contractor selection procedure**

*(This paragraph should explain how a maintenance contractor is selected by the continuing airworthiness management organisation. Selection should not be limited to the verification that the contractor is appropriately approved for the type of aircraft, but also that the contractor has the industrial capacity to undertake the required maintenance. This selection procedure should preferably include a contract review process in order to insure that:*

- the contract is comprehensive and that no gap or unclear area remains,*
- everyone involved in the contract [both at the continuing airworthiness management organisation and at the maintenance contractor] agrees with the terms of the contract and fully understand his responsibility.*
- that functional responsibilities of all parties are clearly identified.*
- is signed by the owner/lessee of the aircraft in the case of non-commercial air transport.*

*In the case of non-commercial air transport, this activity should be carried in agreement with the owner.)*

### **3.2 Quality audit of aircraft**

*(This paragraph should set out the procedure when performing a quality audit of an aircraft. It should set out the differences between an airworthiness review and quality audit. This procedure may include:*

- compliance with approved procedures;*
- contracted maintenance is carried out in accordance with the contract;*
- continued compliance with Part M.)*

## **PART 4 AIRWORTHINESS REVIEW PROCEDURES**

### **4.1 Airworthiness review staff**

*(This paragraph should establish the working procedures for the assessment of the airworthiness review staff. The assessment addresses experience, qualification, training etc. A description should be given regarding the issuance of authorisations for the airworthiness review staff and how records are kept and maintained.)*

### **4.2 Review of aircraft records**

*(This paragraph should describe in detail the aircraft records that are required to be reviewed during the airworthiness review. The level of detail that needs to be reviewed should be described and the number of records that need to be reviewed during a sample check.)*

### **4.3 Physical survey**

*(This paragraph should describe how the physical survey needs to be performed. It should list the topics that need to be reviewed, the physical areas of the aircraft to be inspected, which documents onboard the aircraft that need to be reviewed etc.)*

### **4.4 Additional procedures for recommendations to competent authorities for the import of aircraft**

*(This paragraph should describe the additional tasks regarding the recommendation for the issuance of an airworthiness review certificate in the case of an import of an aircraft. This should include: communication*

*with the competent authority of registry, additional items to be reviewed during the airworthiness review of the aircraft, specification of maintenance required to be carried out, etc.)*

**4.5 Recommendations to competent authorities for the issue of airworthiness review certificates**

*(This paragraph should stipulate the communication procedures with the competent authorities in case of a recommendation for the issuance of an airworthiness review certificate. In addition the content of the recommendation should be described.)*

**4.6 Issuance of airworthiness review certificates**

*(This paragraph should set out the procedures for the issuance of the ARC. It should address record keeping, distribution of the ARC copies etc. This procedure should ensure that only after an airworthiness review that has been properly carried out, an ARC will be issued.)*

**4.7 Airworthiness review records, responsibilities, retention and access**

*(This paragraph should describe how records are kept, the periods of record keeping, location where the records are being stored, access to the records and responsibilities.)*

**PART 4B PERMIT TO FLY PROCEDURES**

**4B.1 Conformity with approved flight conditions**

*(The procedure should indicate how conformity with approved flight conditions is established, documented and attested by an authorised person.)*

**4B.2 Issue of the permit to fly under the CAMO privilege**

*(The procedure should describe the process to prepare the EASA Form 20b (see Appendix IV to Part 21) and how compliance with 21.A.711(d) and (e) is established before signature of the permit to fly. It should also describe how the organisation ensures compliance with 21.A.711(g) for the revocation of the permit to fly)*

**4B.3 Permit to fly authorised signatories**

*(The person(s) authorised to sign the permit to fly under the privilege of M.A.711(c) should be identified (name, signature and scope of authority) in the procedure, or in an appropriate document linked to the CAME.)*

**4B.4 Interface with the local authority for the flight**

*(The procedure should include provisions describing the communication with the local authority for flight clearance and compliance with the local requirements which are outside the scope of the conditions of 21.A.708(b) (see Part 21.A.711(e)))*

**4B.5 Permit to fly records, responsibilities, retention and access**

*(This paragraph should describe how records are kept, the periods of record keeping, location where the records are being stored, access to the records and responsibilities.)*

**PART 5 APPENDICES**

**5.1 Sample documents**

*(A self-explanatory paragraph)*

**5.2 List of airworthiness review staff**



*(A self-explanatory paragraph)*

**5.3 List of sub-contractors as per AMC M.A.201(h)1 and M.A.711(a)3**

*(A self-explanatory paragraph, in addition it should set out that the list should be periodically reviewed)*

**5.4 List of approved maintenance organisations contracted**

*(A self-explanatory paragraph, in addition it should set out that the list should be periodically reviewed)*

**5.5 Copy of contracts for sub-contracted work (appendix II to AMC M.A.201(h)1)**

*(A self-explanatory paragraph)*

**5.6 Copy of contracts with approved maintenance organisations**

*(A self-explanatory paragraph)*

**Appendix VI to AMC M.B.602(f) EASA Form 6F**

<b>M.A. SUBPART F APPROVAL RECOMMENDATION REPORT</b>	<b>EASA FORM 6F</b>
<b>Part 1: General</b>	
Name of organisation:	
Approval reference:	
Requested approval rating/	
EASA Form 3 dated*:	
Other approvals held (If app.)	
Address of facility audited:	
Audit period: from	to :
Date(s) of audit(s):	
Audit reference(s):	
Persons interviewed:	
Competent authority surveyor:	Signature(s):
Competent authority office:	Date of EASA Form 6F part 1 completion:
*delete where applicable	

<b>M.A. SUBPART F APPROVAL RECOMMENDATION REPORT</b>		<b>EASA FORM 6F</b>				
<b>Part 2: M.A. Subpart F Compliance Audit Review</b>						
<p>The five columns may be labelled and used as necessary to record the approval product line or facility, including subcontractor's, reviewed. Against each column used of the following M.A. Subpart F subparagraphs please either tick (√) the box if satisfied with compliance or cross (X) the box if not satisfied with compliance and specify the reference of the Part 4 finding next to the box or enter N/A where an item is not applicable, or N/R when applicable but not reviewed.</p>						
Para	Subject					
M.A.603	Extent of approval	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.604	Maintenance Organisation Manual (see Part 3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.605	Facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.606	Personnel requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.607	Certifying staff and airworthiness review staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.608	Components, Equipment and tools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.609	Maintenance data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**APPENDICES TO AMC AND GM**

M.A.610	Maintenance work orders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.611	Maintenance standards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.612	Aircraft certificate of release to service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.613	Component certificate of release to service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.614	Maintenance records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.615	Privileges of the organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.616	Organisational review	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.617	Changes to the approved maintenance organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.619	Findings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Competent authority surveyor(s):		Signature(s):				
Competent authority office:		Date of EASA Form 6F part 2 completion:				

M.A. SUBPART F APPROVAL RECOMMENDATION REPORT		EASA FORM 6F
<b>PART 3: Compliance with M.A. Subpart F maintenance organisation manual (MOM)</b>		
Please either tick (√) the box if satisfied with compliance; or cross (x) if not satisfied with compliance and specify the reference of the Part 4 finding; or enter N/A where an item is not applicable; or N/R when applicable but not reviewed.		
Part A	General	
1.1	<input type="checkbox"/>	Table of content
1.2	<input type="checkbox"/>	List of effective pages
1.3	<input type="checkbox"/>	Record of amendments
1.4	<input type="checkbox"/>	Amendment procedure
1.5	<input type="checkbox"/>	Distribution
1.6	<input type="checkbox"/>	Accountable manager's statement
Part B	Description	
2.1	<input type="checkbox"/>	Organisation's scope of work
2.2	<input type="checkbox"/>	General presentation of the organisation
2.3	<input type="checkbox"/>	Name and title of management personnel
2.4	<input type="checkbox"/>	Organisation chart
2.5	<input type="checkbox"/>	Certifying staff and airworthiness review staff
2.6	<input type="checkbox"/>	Personnel
2.7	<input type="checkbox"/>	General description of the facility
2.8	<input type="checkbox"/>	Tools, equipment and material
2.9	<input type="checkbox"/>	Maintenance data
Part C	General procedures	

3.1		Organisational review
3.2		Training
3.3		Subcontracting of specialised services
3.4		One time authorisations

**M.A. SUBPART F APPROVAL RECOMMENDATION REPORT**

**EASA FORM 6F**

**PART 3: Compliance with M.A. Subpart F maintenance organisation manual (MOM)**

Part D	Working Procedures	
4.1		Work order acceptance
4.2		Preparation and issue of work package
4.3		Logistics
4.4		Execution
4.5		Release to service – Certifying staff
4.6		Release to service – Supervision
4.7		Release to service – Certificate of release to service
4.8		Records
4.9		Airworthiness review procedures and records for ELA1 aircraft not involved in commercial operations
4.10		Procedures for the development and approval processing for maintenance programmes for ELA2 aircraft not involved in commercial operations
4.11		Special procedures
4.12		Occurrence reporting
4.13		Management of indirect approval of the manual
Part E	Appendices	

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**APPENDICES TO AMC AND GM**

5.1	<input style="width: 100%; height: 100%;" type="text"/>	Sample of all documents used
5.2	<input style="width: 100%; height: 100%;" type="text"/>	List of subcontractors.
5.3	<input style="width: 100%; height: 100%;" type="text"/>	List of maintenance locations
5.4	<input style="width: 100%; height: 100%;" type="text"/>	List of Part 145 or M.A. Subpart F organisations
MOM reference:		MOM amendment:
Competent authority audit staff:		Signature(s):
Competent authority office:		Date of EASA Form 6F part 3 completion:

<b>M.A. SUBPART F APPROVAL RECOMMENDATION REPORT</b>			<b>EASA FORM 6F</b>		
<b>Part 4: Findings regarding M.A. Subpart F compliance status</b>					
Each level 1 and 2 finding should be recorded whether it has been rectified or not and should be identified by a simple cross reference to the Part 2 requirement. All non-rectified findings should be copied in writing to the organisation for the necessary corrective action.					
Part 2 or 3 ref.	Audit reference(s):	L e v e l	Corrective action		
	Findings		Date Due	Date Closed	Reference

--	--	--	--	--

**M.A. SUBPART F APPROVAL RECOMMENDATION REPORT**

**EASA FORM 6F**

**Part 5: M.A. Subpart F approval or continued approval or change recommendation**

Name of organisation:

Approval reference:

Audit reference(s):

The following M.A. Subpart F scope of approval is recommended for this organisation:

Or, it is recommended that the M.A. Subpart F scope of approval specified in EASA Form 3 referenced ..... be continued.

Name of recommending competent authority surveyor:

Signature of recommending competent authority surveyor:

Competent authority office:

Date of recommendation:

EASA Form 6F review (quality check):

Date:



Appendix VII to AMC M.B.702(f) EASA Form 13

M.A. SUBPART G APPROVAL RECOMMENDATION REPORT	EASA FORM 13
<b>Part 1: General</b>	
Name of organisation:	
Approval reference:	
Requested approval rating/	
EASA Form 14 or AOC dated*:	
Other approvals held (if app.)	
Address of facility(ies) audited:	
Audit period: from                      to                      :	
Date(s) of audit(s):	
Audit reference(s):	
Persons interviewed:	
Competent authority surveyor:	Signature(s):
Competent authority office:	Date of EASA Form 13 part 1 completion:
<i>* delete as where applicable</i>	

<b>M.A. SUBPART G APPROVAL RECOMMENDATION REPORT</b>		<b>EASA FORM 13</b>				
<b>Part 2: M.A. Subpart G Compliance Audit Review</b>						
<p>The five columns may be labelled and used as necessary to record the approval product line or facility, including subcontractor's, reviewed. Against each column used of the following M.A. Subpart G subparagraphs please either tick (✓) the box if satisfied with compliance, or cross (X) the box if not satisfied with compliance and specify the reference of the Part 4 finding next to the box, or enter N/A where an item is not applicable, or N/R when applicable but not reviewed.</p>						
Para	Subject					
M.A.703	Extent of approval	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.704	Continuing airworthiness management exposition (see Part 3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.705	Facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.706	Personnel requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.707	Airworthiness review staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.708	Continuing airworthiness management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.201	Responsibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.202	Occurrence reporting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.302	Aircraft maintenance programme	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

M.A.303	Airworthiness directives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.304	Data for modifications and repairs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.305	Aircraft continuing airworthiness record system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.306	Operator's technical log system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.307	Transfer of aircraft continuing airworthiness records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.709	Documentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.710	Airworthiness review	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.711	Privileges of the organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.712	Quality system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.713	Changes to the approved continuing airworthiness organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.714	Record keeping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.716	Findings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Competent authority  
surveyor(s):

Signature(s):

Competent authority office:

Date of EASA Form 13 part 2 completion:

**M.A. SUBPART G APPROVAL RECOMMENDATION REPORT**

**EASA FORM 13**

**PART 3: Compliance with M.A. Subpart G continuing airworthiness management exposition (CAME)**

Please either tick (√) the box if satisfied with compliance; or cross (x) if not satisfied with compliance and specify the reference of the Part 4 finding; or enter N/A where an item is not applicable; or N/R when applicable but not reviewed.

**Part 0**      **General organisation**

- |     |                          |  |
|-----|--------------------------|--|
| 0.1 | <input type="checkbox"/> | Corporate commitment by the accountable manager  |
| 0.2 | <input type="checkbox"/> | General information  |
| 0.3 | <input type="checkbox"/> | Management personnel   |
| 0.4 | <input type="checkbox"/> | Management organisation chart  |
| 0.5 | <input type="checkbox"/> | Notification procedure to the competent authority regarding changes to the organisation's activities/approval/location/personnel |
| 0.6 | <input type="checkbox"/> | Exposition amendment procedures  |

**Part 1**      **Continuing airworthiness management procedures**

- |     |                          |   |
|-----|--------------------------|---|
| 1.1 | <input type="checkbox"/> | Aircraft technical log utilisation and MEL application (commercial air transport)<br>Aircraft continuing airworthiness record system utilisation (non commercial air transport) |
| 1.2 | <input type="checkbox"/> | Aircraft maintenance programmes – development amendment and approval  |
| 1.3 | <input type="checkbox"/> | Time and continuing airworthiness records, responsibilities, retention, access  |
| 1.4 | <input type="checkbox"/> | Accomplishment and control of airworthiness directives  |
| 1.5 | <input type="checkbox"/> | Analysis of the effectiveness of the maintenance programme(s)   |
| 1.6 | <input type="checkbox"/> | Non mandatory modification embodiment policy  |

1.7		Major repair and modification standards
1.8		Defect reports
1.9		Engineering activity
1.10		Reliability programmes
1.11		Pre-flight inspections
1.12		Aircraft weighing
1.13		Check flight procedures
Part 2	Quality system	
2.1		Continuing airworthiness quality policy, plan and audits procedure
2.2		Monitoring of continuing airworthiness management activities
2.3		Monitoring of the effectiveness of the maintenance programme(s)
2.4		Monitoring that all maintenance is carried out by an appropriate maintenance organisation
2.5		Monitoring that all contracted maintenance is carried out in accordance with the contract, including subcontractors used by the maintenance contractor
2.6		Quality audit personnel
Part 3	Contracted Maintenance	
3.1		Maintenance contractor selection procedure
3.2		Quality audit of aircraft
Part 4	Airworthiness review procedures	
4.1		Airworthiness review staff
4.2		Review of aircraft records
4.3		Physical survey
4.4		Additional procedures for recommendations to competent authorities for the import of aircraft

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**APPENDICES TO AMC AND GM**

4.5		Recommendations to competent authorities for the issue of airworthiness review certificates
4.6		Issuance of airworthiness review certificates
4.7		Airworthiness review records, responsibilities, retention and access
Part 4B		Permit to fly procedures
4B.1		Conformity with approved flight conditions
4B.2		Issue of permit to fly under the CAMO privilege
4B.3		Permit to fly authorised signatories
4B.4		Interface with the local authority for the flight
4B.5		Permit to fly records, responsibilities, retention and access.
Part 5		Appendices
5.1		Sample Documents
5.2		List of airworthiness review staff
5.3		List of subcontractors as per M.A.711 (a)3 and AMC M.A.201(h)1
5.4		List of approved maintenance organisations contracted
5.5		Copy of contracts for subcontracted work (appendix 2 to AMC M.A.201(h)1
5.6		Copy of contracts with approved maintenance organisations

CAME Reference:

CAME Amendment:

Competent authority audit staff:

Signature(s):

Competent authority office:

Date of EASA Form 13 part 3 completion:

<b>M.A. SUBPART G APPROVAL RECOMMENDATION REPORT</b>			<b>EASA FORM 13</b>		
<b>Part 4: Findings regarding M.A. Subpart G compliance status</b>					
<p>Each level 1 and 2 finding should be recorded whether it has been rectified or not and should be identified by a simple cross reference to the Part 2 requirement. All non-rectified findings should be copied in writing to the organisation for the necessary corrective action.</p>					
Part 2 or 3 ref.	Audit reference(s):	L e v e l	Corrective action		
	Findings		Date Due	Date Closed	Reference

**M.A. SUBPART G APPROVAL RECOMMENDATION REPORT**

**EASA FORM 13**

**Part 5: M.A. Subpart G approval or continued approval or change recommendation**

Name of organisation:

Approval reference:

Audit reference(s):

The following M.A. Subpart G scope of approval is recommended for this organisation:

Or, it is recommended that the M.A. Subpart G scope of approval specified in EASA Form 14 referenced ..... be continued.

Name of recommending competent authority surveyor:

Signature of recommending competent authority surveyor:

Competent authority office:

Date of recommendation:

EASA Form 13 review (quality check):

Date:



**Appendix VIII to AMC M.A.616 Organisational Review**

**This is only applicable to organisations with less than 10 maintenance staff members. For larger organisations, the principles and practices of an independent quality system should be used.**

Depending on the complexity of the small organisation (number and type of aircraft, number of different fleets, subcontracting of specialised services, etc.), the organisational review system may vary from a system using the principles and practices of a quality system (except for the requirement of independence) to a simplified system adapted to the low complexity of the organisation and the aircraft managed.

As a core minimum, the organisational review system should have the following features, which should be described in the Maintenance Organisation Manual (MOM):

- a. Identification of the person responsible for the organisational review programme.

By default, this person should be the accountable manager, unless he delegates this responsibility to (one of) the M.A.606(b) person(s).

- b. Identification and qualification criteria for the person(s) responsible for performing the organisational reviews.

These persons should have a thorough knowledge of the regulations and of the maintenance organisation procedures. They should also have knowledge of audits, acquired through training or through experience (preferably as an auditor, but also possibly because they actively participated in several audits conducted by the competent authority).

- c. Elaboration of the organisational review programme:

- Checklist(s) covering all items necessary to be satisfied that the organisation delivers a safe product and complies with the regulation. All procedures described in the MOM should be addressed.
- A schedule for the accomplishment of the checklist items. Each item should be checked at least every 12 months. The organisation may choose to conduct one full review annually or to conduct several partial reviews.

- d. Performance of organisational reviews

Each checklist item should be answered using an appropriate combination of:

- review of records, documentation, etc;
- sample check of aircraft under contract or being maintained under a work order;
- interview of personnel involved;
- review of discrepancies and difficulty internal reports (e.g. notified difficulties in using current procedures and tools, systematic deviations from procedures, etc.);
- review of complaints filed by customers after delivery.

- e. Management of findings and occurrence reports.

- All findings should be recorded and notified to the affected persons.

- All level 1 findings, in the sense of M.A.619(a), should be immediately notified to the competent authority and all necessary actions on aircraft in service should be immediately taken.
- All occurrence reports should be reviewed with the aim for continuous improvement of the system by identifying possible corrective and preventive actions. This should be done in order to find prior indicators (e.g., notified difficulties in using current procedures and tools, systematic deviations from procedures, unsafe behaviours, etc.), and dismissed alerts that, had they been recognised and appropriately managed before the event, could have resulted in the undesired event being prevented.
- Corrective and preventive actions should be approved by the person responsible for the organisational review programme and implemented within a specified time frame.
- Once the person responsible for the organisational review programme is satisfied that the corrective action is effective, closure of the finding should be recorded along with a summary of the corrective action.
- The accountable manager should be notified of all significant findings and, on a regular basis, of the global results of the organisational review programme.

Following is a typical example of a simplified organisational review checklist, **to be adapted as necessary to cover the MOM procedures:**

#### **1 – Scope of work**

Check that:

- All aircraft and components under maintenance or under contract are covered in EASA Form 3.
- The scope of work in the MOM does not disagree with EASA Form 3.
- No work has been performed outside the scope of EASA Form 3 and the MOM.

#### **2 - Maintenance data**

- Check that maintenance data to cover the aircraft in the scope of work of the MOM are present and up-to-date.
- Check that no change has been made to the maintenance data from the TC holder without being notified.

#### **3 – Equipment and Tools**

- Check the equipment and tools against the lists in the MOM and check if still appropriate to the TC holder's instructions.
- Check tools for proper calibration (sample check).

#### **4 – Stores**

- Do the stores meet the criteria in the procedures of the MOM?
- Check by sampling some items in the store for presence of proper documentation and any overdue items.

**5 – Certification of maintenance, airworthiness review and development and approval processing of maintenance programmes**

- Has maintenance on products and components been properly certified?
- Have implementation of modifications/repairs been carried out with appropriate approval of such modifications/repairs (sample check)?
- Have airworthiness reviews been properly performed and the airworthiness review certificate properly been issued?
- Have maintenance programmes for ELA2 aircraft not involved in commercial operations been properly developed?

**6 – Relations with the owners/operators**

- Has maintenance been carried out with suitable work orders?
- When a contract has been signed with an owner/operator, has the obligations of the contracts been respected on each side?

**7 – Personnel**

- Check that the current accountable manager and other nominated persons are correctly identified in the approved MOM.
- If the number of personnel has decreased or if the activity has increased, check that the staff are still adequate to ensure a safe product.
- Check that the qualification of all new personnel (or personnel with new functions) has been appropriately assessed.
- Check that the staff have been trained, as necessary, to cover changes in:
  - regulations,
  - competent authority publications,
  - the MOM and associated procedures,
  - the products in the scope of work,
  - maintenance data (significant ADs, SBs, etc.).

**8 – Maintenance contracted**

- Sample check of maintenance records:
  - Existence and adequacy of the work order,
  - Data received from the maintenance organisation:
    - Valid CRS including any deferred maintenance,
    - List of removed and installed equipment and copy of the associated EASA Form 1 or equivalent.
- Obtain a copy of the current approval certificate (EASA Form 3) of the maintenance organisations contracted.

**9 – Maintenance subcontracted**

Check that subcontractors for specialised services are properly controlled by the organisation.

**10 – Technical records and record-keeping**

- Have the maintenance actions been properly recorded?
- Have the certificates (EASA Form 1 and Conformity certificates) been properly collected and recorded?
- Perform a sample check of technical records to ensure completeness and storage during the appropriate periods.
- Is storage of computerised data properly ensured?

**11 – Occurrence reporting procedures**

- Check that reporting is properly performed.
- Actions taken and recorded.

Appendix IX to AMC M.A.602 and AMC M.A.702 EASA Form 2

Application for		
Competent authority	Part-M Subpart F Approval*	initial grant* / Change*
	Part-145 Approval*	initial grant* / Change*
	Part-M Subpart G Approval*	initial grant* / Change*
1. Registered name of applicant:		
2. Trading name (if different):		
3. Addresses requiring approval:		
4. Tel. .... Fax .....		
E-mail .....		
5. Scope of approval relevant to this application: see page 2 for possibilities in the case of a Subpart F/Part-145 approval:		
6. Position and name of the (proposed*) Accountable Manager: .....		
7. Signature of the (proposed*) Accountable Manager: .....		
8. Place: .....		
9. Date: .....		
<u>Note (1)</u> : A note giving the address(es) to which the EASA Form(s) should be sent.		
<u>Note (2)</u> : An optional note to give information on any fees payable.		
* delete as applicable		

**AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014**

**APPENDICES TO AMC AND GM**

**SCOPE OF APPROVAL AVAILABLE**

CLASS	RATING	LIMITATION	BASE	LINE
AIRCRAFT	A1 Aeroplanes above 5 700 kg	[Rating reserved to Maintenance Organisations approved in accordance with Annex II (Part-145)]  [State aeroplane manufacturer or group or series or type and/or the maintenance tasks]  <i>Example: Airbus A320 Series</i>	[YES/NO]*	[YES/NO]*
	A2 Aeroplanes 5 700 kg and below	[State aeroplane manufacturer or group or series or type and/or the maintenance tasks]  <i>Example: DHC-6 Twin Otter Series</i>  State whether the issue of airworthiness review certificates is requested or not (only possible for ELA1 aircraft not involved in commercial operations)	[YES/NO]*	[YES/NO]*
	A3 Helicopters	[State helicopter manufacturer or group or series or type and/or the maintenance task(s)]  <i>Example: Robinson R44</i>	[YES/NO]*	[YES/NO]*
	A4 Aircraft other than A1, A2 and A3	[State aircraft category (sailplane, balloon, airship, etc.), manufacturer or group or series or type and/or the maintenance task(s).]  State whether the issue of airworthiness review certificates is requested or not (only possible for ELA1 aircraft not involved in commercial operations).	[YES/NO]*	[YES/NO]*
ENGINES	B1 Turbine	[State engine series or type and/or the maintenance task(s)]  <i>Example: PT6A Series</i>		
	B2 Piston	[State engine manufacturer or group or series or type and/or the maintenance task(s)]		
	B3 APU	[State engine manufacturer or series or type and/or the maintenance task(s)]		

AMC/GM TO ANNEX I (PART-M) TO REGULATION (EU) No 1321/2014

APPENDICES TO AMC AND GM

COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs	C1 Air Cond & Press	[State aircraft type or aircraft manufacturer or component manufacturer or the particular component and/or cross refer to a capability list in the exposition and/or the maintenance task(s).]  <i>Example: PT6A Fuel Control</i>
	C2 Auto Flight	
	C3 Comms and Nav	
	C4 Doors - Hatches	
	C5 Electrical Power & Lights	
	C6 Equipment	
	C7 Engine - APU	
	C8 Flight Controls	
	C9 Fuel	
	C10 Helicopter - Rotors	
	C11 Helicopter - Trans	
	C12 Hydraulic Power	
	C13 Indicating -recording system	
	C14 Landing Gear	
	C15 Oxygen	
	C16 Propellers	
	C17 Pneumatic & Vacuum	
	C18 Protection ice/rain/fire	
	C19 Windows	
	C20 Structural	
	C21 Water ballast	
	C22 Propulsion Augmentation	
SPECIALISED SERVICES	D1 Non-Destructive Testing	[State particular NDT method(s)]

\* Delete as appropriate.

Appendix X to AMC M.B.602(a) and AMC M.B.702(a) EASA Form 4

**COMPETENT AUTHORITY**

Details of Management Personnel required to be accepted as specified in Part-.....

1. Name:

2. Position:

3. Qualifications relevant to the item (2) position:

4. Work experience relevant to the item (2) position:

Signature: .....Date: .....

On completion, please send this form under confidential cover to the competent authority

Competent authority use only

Name and signature of authorised competent authority staff member accepting this person:

Signature: ..... Date: .....

Name: ..... Office: .....



**Appendix XI to AMC to M.A.708(c) Contracted maintenance**

1. Maintenance contracts

The following paragraphs are not intended to provide a standard maintenance contract but to provide a list of the main points that should be addressed, when applicable, in a maintenance contract between an Operator and a Part-145 approved organisation. As only the technical parts of the maintenance contracts have to be acceptable to the competent authority, the following paragraphs only address technical matters and exclude matters such as costs, delay, warranty, etc...

When maintenance is contracted to more than one Part-145 approved organisation (for example aircraft base maintenance to X, engine maintenance to Y and line maintenance to Z1, Z2&Z3), attention should be paid to the consistency of the different maintenance contracts.

A maintenance contract is not normally intended to provide appropriate detailed work instruction to the personnel (and is not normally distributed as such). Accordingly there should be established organisational responsibility, procedures and routines in the operator's M.A. Subpart G & Part-145 organisations to take care of these functions in a satisfactory way such that any person involved is informed about his/her responsibility and the procedures which apply. These procedures and routines can be included/appended to the operator's CAME and maintenance organisation's MOE or consist in separate procedures. In other words procedures and routines should reflect the conditions of the contract.

2. Aircraft/Engine maintenance

The following subparagraphs may be adapted to a maintenance contract that applies to aircraft base maintenance, aircraft line maintenance and engine maintenance.

Aircraft maintenance also includes the maintenance of the engines and APU while they are installed on the aircraft.

2.1. Scope of work

The type of maintenance to be performed by the Part-145 approved organisation should be specified unambiguously. In case of line and/or base maintenance, the contract should specify the aircraft type and, preferably include the aircraft's registrations.

In case of engine maintenance, the contract should specify the engine type.

2.2. Locations identified for the performance of maintenance/ Certificates held

The place(s) where base, line or engine maintenance, as applicable, will be performed should be specified. The certificate held by the maintenance organisation at the place(s) where the maintenance will be performed should be referred to in the contract. If necessary the contract may address the possibility of performing maintenance at any location subject to the need for such maintenance arising either from the unserviceability of the aircraft or from the necessity of supporting occasional line maintenance.

2.3. Subcontracting

The maintenance contract should specify under which conditions the Part-145 approved organisation may subcontract tasks to a third party (whether this third party is Part-145 approved or not). At least

the contract should make reference to 145.A.75. Additional guidance is provided by the AMC 145.A.75. In addition the operator may require the Part-145 approved organisation to obtain the operator's approval before subcontracting to a third party. Access should be given to the operator to any information (especially the quality monitoring information) about the Part-145 approved organisation's subcontractors involved in the contract. It should however be noted that under operators responsibility both the operator and its competent authority are entitled to be fully informed about subcontracting, although the competent authority will normally only be concerned with aircraft, engine and APU subcontracting.

**2.4. Maintenance programme**

The maintenance programme under which the maintenance has to be performed has to be specified. The operator should have that maintenance programme approved by its competent authority. When the maintenance programme is used by several operators, it is important to remember that it is the responsibility of each operator to have that maintenance programme approved under its own name by its competent authority.

**2.5. Quality monitoring**

The terms of the contract should include a provision allowing the operator to perform a quality surveillance (including audits) upon the Part-145 approved organisation. The maintenance contract should specify how the results of the quality surveillance are taken into account by the Part-145 approved organisation (See also paragraph 2.22. 'Meetings').

**2.6. Competent authority involvement**

When the operator's competent authority and the Part-145 approved organisation's competent authority is not the same, the operator and the Part-145 approved organisation have to ensure together with their competent authority that the respective competent authority's responsibilities are properly defined and that, if necessary, delegations have been established.

**2.7. Airworthiness data**

The airworthiness data used for the purpose of this contract as well as the authority responsible for the acceptance/approval should be specified. This may include, but may not be limited to:

- maintenance programme,
- airworthiness directives,
- major repairs/modification data,
- aircraft maintenance manual,
- aircraft IPC,
- wiring diagrams,
- trouble shooting manual,
- Minimum Equipment List (normally on board the aircraft),
- operators manual,
- Flight Manual,

- engine maintenance manual,
- engine overhaul manual.

**2.8. Incoming Conditions**

The contract should specify in which condition the operator should send the aircraft to the Part-145 approved organisation. For checks of significance i.e. 'C' checks and above, it may be beneficial that a work scope planning meeting be organised so that the tasks to be performed may be commonly agreed (see also paragraph 2.23: 'Meetings').

**2.9. Airworthiness Directives and Service Bulletin/Modifications**

The contract should specify what information the operator is responsible to provide to the Part-145 approved organisation, such as the due date of the airworthiness directives (ADs), the selected means of compliance, the decision to embody Service Bulletins (SBs) or modification, etc. In addition the type of information the operator will need in return to complete the control of ADs and modification status should be specified.

**2.10. Hours & Cycles control**

Hours and cycles control is the responsibility of the operator, but there may be cases where the Part-145 approved organisation should receive the current flight hours and cycles on a regular basis so that it may update the records for its own planning functions (see also paragraph 2.22: 'Exchange of information').

**2.11. Service life-limited components**

Service life-limited components control is the responsibility of the operator.

The Part-145 approved organisation will have to provide the operator with all the necessary information about the service life-limited components removal/installation so that the operator may update its records (see also paragraph 2.22 'Exchange of information').

**2.12. Supply of parts**

The contract should specify whether a particular type of material or component is supplied by the operator or by the contracted Part-145 approved organisation, which type of component is pooled, etc. The contract should clearly state that it is the Part-145 competence and responsibility to be in any case satisfied that the component in question meets the approved data/standard and to ensure that the aircraft component is in a satisfactory condition for installation. In other words, there is definitely no way for a Part-145 organisation to accept whatever is supplied by the operator. Additional guidance is provided by 145.A.42 for acceptance of components.

**2.13. Pooled parts at line stations**

If applicable the contract should specify how the subject of pooled parts at line stations should be addressed.

**2.14. Scheduled maintenance**

For planning scheduled maintenance checks, the support documentation to be given to the Part-145 approved organisation should be specified. This may include, but may not be limited to:

- applicable work package, including job cards;

- scheduled component removal list;
- modifications to be incorporated.

When the Part-145 approved organisation determines, for any reason, to defer a maintenance task, it has to be formally agreed with the operator. If the deferment goes beyond an approved limit, refer to paragraph 2.17: 'Deviation from the maintenance schedule'. This should be addressed, where applicable, in the maintenance contract.

**2.15. Unscheduled maintenance/Defect rectification**

The contract should specify to which level the Part-145 approved organisation may rectify a defect without reference to the operator. As a minimum, the approval and incorporation of major repairs should be addressed. The deferment of any defect rectification should be submitted to the operator and, if applicable, to its competent authority.

**2.16. Deferred tasks**

See paragraphs 2.14 and 2.15 above and AMC 145.A.50(e). In addition, for aircraft line and base maintenance the use of the operator's MEL and the relation with the operator in case of a defect that cannot be rectified at the line station should be addressed.

**2.17. Deviation from the maintenance schedule**

Deviations have to be requested by the operator to its competent authority or granted by the operator in accordance with a procedure acceptable to its competent authority. The contract should specify the support the Part-145 approved organisation may provide to the operator in order to substantiate the deviation request.

**2.18. Test flight**

If any test flight is required after aircraft maintenance, it should be performed in accordance with the procedures established in the operator's continuing airworthiness management exposition.

**2.19. Bench Test**

The contract should specify the acceptability criterion and whether a representative of the operator should witness an engine undergoing test.

**2.20. Release to service documentation**

The release to service has to be performed by the Part-145 approved organisation in accordance with its MOE procedures. The contract should, however, specify which support forms have to be used (Operator's technical log, Part-145 approved organisation's maintenance visit file, etc.) and the documentation the Part-145 approved organisation should provide to the operator upon delivery of the aircraft. This may include, but may not be limited to:

- Certificate of release to service — mandatory,
- flight test report,
- list of modifications embodied,
- list of repairs,
- list of ADs incorporated,

- maintenance visit report,
- test bench report.

#### 2.21. Maintenance recording

The operator may contract the Part-145 approved organisation to retain some of the maintenance records required by Part-M Subpart C. It should be ensured that every requirement of Part-M Subpart C is fulfilled by either the operator or the Part-145 approved organisation. In such a case, free and quick access to the above-mentioned records should be given by the Part-145 approved organisation to the operator and its competent authority (in case of two different competent authorities involved, see paragraph 2.6 'competent authority involvement').

#### 2.22. Exchange of information

Each time exchange of information between the operator and the Part-145 approved organisation is necessary, the contract should specify what information should be provided and when (i.e. on what occasion or at what frequency), how, by whom and to whom it has to be transmitted.

#### 2.23. Meetings

For the competent authority to be satisfied that a good communication system exists between the operator and the Part-145 approved organisation, the terms of the maintenance contract should include the provision for a certain number of meetings to be held between both parties.

##### 2.23.1. Contract review

Before the contract is applicable, it is very important for the technical personnel of both parties that are involved in the application of the contract to meet in order to be sure that every point leads to a common understanding of the duties of both parties.

##### 2.23.2. Work scope planning meeting

Work scope planning meetings may be organised so that the tasks to be performed may be commonly agreed.

##### 2.23.3. Technical meeting

Scheduled meetings may be organised in order to review on a regular basis technical matters such as ADs, SBs, future modifications, major defects found during maintenance check, reliability, etc.

##### 2.23.4. Quality meeting

Quality meetings may be organised in order to examine matters raised by the operator's quality surveillance and to agree upon necessary corrective actions.

##### 2.23.5. Reliability meeting

When a reliability programme exists, the contract should specify the operator's and Part-145 approved organisation's respective involvement in that programme, including the participation in reliability meetings.

**Appendix XII to AMC to M.A.706(f) and M.B.102(c) Fuel Tank Safety training**

This appendix includes general instructions for providing training on Fuel Tank Safety issues.

**B) Effectivity:**

- Large aeroplanes as defined in Decision 2003/11/RM of the Executive Director of the Agency (CS-25) and certified after 1 January 1958 with a maximum type certified passenger capacity of 30 or more or a maximum certified payload capacity of 7500 lbs (3402 kg) cargo or more, and
- Large aeroplanes as defined in Decision 2003/11/RM of the Executive Director of the Agency (CS-25) which contains CS-25 amendment 1 or later in their certification basis.

**C) Affected organisations:**

- CAMOs involved in the continuing airworthiness management of aeroplanes specified in paragraph A).
- Competent authorities responsible for the oversight as per M.B.704 of aeroplanes specified in paragraph A) and for the oversight of the CAMOs specified in this paragraph B).

**D) Persons from affected organisations who should receive training:**

Phase 1 only:

- The quality manager and quality personnel.
- Personnel of the competent authorities responsible for the oversight as per M.B.704 of aeroplanes specified in paragraph A) and in the oversight of CAMOs specified in paragraph B).

Phase 1 + Phase 2 + Continuation training:

- Personnel of the CAMO involved in the management and review of the continuing airworthiness of aircraft specified in paragraph A);

**E) General requirements of the training courses**

Phase 1 – Awareness

The training should be carried out before the person starts to work without supervision but not later than 6 months after joining the organisation. The persons who have already attended the Level 1 Familiarisation course in compliance with ED Decision 2007/001/R Appendix XII are already in compliance with Phase 1.

Type: Should be an awareness course with the principal elements of the subject. It may take the form of a training bulletin, or other self-study or informative session. Signature of the reader is required to ensure that the person has passed the training.

Level: It should be a course at the level of familiarisation with the principal elements of the subject.

Objectives:

The trainee should, after the completion of the training:

1. Be familiar with the basic elements of the fuel tank safety issues.

2. Be able to give a simple description of the historical background and the elements requiring a safety consideration, using common words and showing examples of non-conformities.
3. Be able to use typical terms.

Content: The course should include:

- a short background showing examples of FTS accidents or incidents,
- the description of concept of fuel tank safety and CDCCL,
- some examples of manufacturers documents showing CDCCL items,
- typical examples of FTS defects,
- some examples of TC holders repair data
- some examples of maintenance instructions for inspection.

Phase 2 - Detailed training

A flexible period may be allowed by the competent authorities to allow organisations to set the necessary courses and impart the training to the personnel, taking into account the organisation's training schemes/means/practices. This flexible period should not extend beyond 31 December 2010.

The persons who have already attended the Level 2 Detailed training course in compliance with ED Decision 2007/001/R Appendix XII either from a CAMO or from a Part-147 training organisation are already in compliance with Phase 2 with the exception of continuation training.

Staff should have received Phase 2 training by 31 December 2010 or within 12 months of joining the organization, whichever comes later.

Type: Should be a more in-depth internal or external course. It should not take the form of a training bulletin or other self-study. An examination should be required at the end, which should be in the form of a multi choice question, and the pass mark of the examination should be 75%.

Level: It should be a detailed course on the theoretical and practical elements of the subject.

The training may be made either:

- in appropriate facilities containing examples of components, systems and parts affected by Fuel Tank Safety (FTS) issues. The use of films, pictures and practical examples on FTS is recommended; or
- by attending a distance course (e-learning or computer based training) including a film when such film meets the intent of the objectives and content here below. An e-learning or computer based training should meet the following criteria:
  - A continuous evaluation process should ensure the effectiveness of the training and its relevance;
  - Some questions at intermediate steps of the training should be proposed to ensure that the trainee is authorized to move to the next step;
  - The content and results of examinations should be recorded;

- Access to an instructor in person or at distance should be possible in case support is needed.

A duration of 8 hours for phase 2 is an acceptable compliance.

When the course is provided in a classroom, the instructor should be very familiar with the data in Objectives and Guidelines. To be familiar, an instructor should have attended himself a similar course in a classroom and made additionally some lecture of related subjects.

Objectives:

The attendant should, after the completion of the training:

- have knowledge of the history of events related to fuel tank safety issues and the theoretical and practical elements of the subject, have an overview of the FAA regulations known as SFAR (Special FAR) 88 of the FAA and of JAA Temporary Guidance Leaflet TGL 47, be able to give a detailed description of the concept of fuel tank system ALI (including Critical Design Configuration Control Limitations CDCCL, and using theoretical fundamentals and specific examples;
- have the capacity to combine and apply the separate elements of knowledge in a logical and comprehensive manner;
- have knowledge on how the above items affect the aircraft;
- be able to identify the components or parts or the aircraft subject to FTS from the manufacturer's documentation,
- be able to plan the action or apply a Service Bulletin and an Airworthiness Directive.

Content: Following the guidelines described in paragraph E).

Continuation training:

The organisation should ensure that the continuation training is performed in each two years period. The syllabus of the training programme referred to in the Training policy of the Continuing Airworthiness Management Exposition (CAME) should contain the additional syllabus for this continuation training.

The continuation training may be combined with the phase 2 training in a classroom or at distance.

The continuing training should be updated when new instructions are issued which are related to the material, tools, documentation and manufacturer's or competent authority's directives.

**F) Guidelines for preparing the content of Phase 2 courses.**

The following guidelines should be taken into consideration when the phase 2 training programme are being established:

- a) understanding of the background and the concept of fuel tank safety,
- b) how the mechanics can recognise, interpret and handle the improvements in the instructions for continuing airworthiness that have been made or are being made regarding fuel tank systems,



- c) awareness of any hazards especially when working on the fuel system, and when the Flammability Reduction System using nitrogen is installed.

Paragraphs a) b) and c) above should be introduced in the training programme addressing the following issues:

- i) The theoretical background behind the risk of fuel tank safety: the explosions of mixtures of fuel and air, the behaviour of those mixtures in an aviation environment, the effects of temperature and pressure, energy needed for ignition etc, the 'fire triangle', - Explain 2 concepts to prevent explosions:
  - (1) ignition source prevention and
  - (2) flammability reduction,
- ii) The major accidents related to fuel tank systems, the accident investigations and their conclusions,
- iii) SFAR 88 of the FAA and JAA Interim Policy INT POL 25/12: ignition prevention program initiatives and goals, to identify unsafe conditions and to correct them, to systematically improve fuel tank maintenance),
- iv) Explain briefly the concepts that are being used: the results of SFAR 88 of the FAA and JAA INT/POL 25/12: modifications, airworthiness limitations items and CDCCL,
- v) Where relevant information can be found and how to use and interpret this information in the various instructions for continuing airworthiness (aircraft maintenance manuals, component maintenance manuals...),
- vi) Fuel Tank Safety during maintenance: fuel tank entry and exit procedures, clean working environment, what is meant by configuration control, wire separation, bonding of components etc,
- vii) Flammability reduction systems when installed: reason for their presence, their effects, the hazards of a Flammability Reduction System (FRS) using nitrogen for maintenance, safety precautions in maintenance/working with an FRS,
- viii) Recording maintenance actions, recording measures and results of inspections.

The training should include a representative number of examples of defects and the associated repairs as required by the TC/STC holders maintenance data.

#### **G) Approval of training**

For CAMOs the approval of the initial and continuation training programme and the content of the examination can be achieved by the change of the CAME exposition. The modification of the CAME should be approved as required by M.A. 704(b). The necessary changes to the CAME to meet the content of this decision should be made and implemented at the time requested by the competent authority.

**Appendix XIII to AMC M.A.712(f) Organisational review**

**Organisational reviews may replace a full quality system in accordance with the provisions of M.A.712(f) and AMC M.A.712(f) and as described in the continuing airworthiness management exposition (CAME)**

Depending on the complexity of the small organisation (number and type of aircraft, number of different fleets, privilege to perform airworthiness reviews, etc.), the organisational review system may vary from a system using the principles and practices of a quality system (except for the requirement of independence) to a simplified system adapted to the low complexity of the organisation and the aircraft managed.

As a core minimum, the organisational review system should have the following features, which should be described in the CAME:

- a. Identification of the person responsible for the organisational review programme:  
By default, this person should be the accountable manager, unless he delegates this responsibility to (one of) the M.A.706(c) person(s).
- b. Identification and qualification criteria for the person(s) responsible for performing the organisational reviews:  
These persons should have a thorough knowledge of the regulations and of the continuing airworthiness management organisation (CAMO) procedures. They should also have knowledge of audits, acquired through training or through experience (preferably as an auditor, but also possibly because they actively participated in several audits conducted by the competent authority).
- c. Elaboration of the organisational review programme:
  - Checklist(s) covering all items necessary to be satisfied that the organisation delivers a safe product and complies with the regulation. All procedures described in the CAME should be addressed.
  - A schedule for the accomplishment of the checklist items. Each item should be checked at least every 12 months. The organisation may choose to conduct one full review annually or to conduct several partial reviews.
- d. Performance of organisational reviews:  
Each checklist item should be answered using an appropriate combination of:
  - review of records, documentation, etc.
  - sample check of aircraft under contract.
  - interview of personnel involved.
  - review of discrepancies and difficulty internal reports (e.g., notified difficulties in using current procedures and tools, systematic deviations from procedures, etc.).
  - review of complaints filed by customers.
- e. Management of findings and occurrence reports:
  - All findings should be recorded and notified to the affected persons.

- All level 1 findings, in the sense of M.A.716(a), should be immediately notified to the competent authority and all necessary actions on aircraft in service should be immediately taken.
- All occurrence reports should be reviewed with the aim for continuous improvement of the system by identifying possible corrective and preventive actions. This should be done in order to find prior indicators (e.g., notified difficulties in using current procedures and tools, systematic deviations from procedures, unsafe behaviours, etc.), and dismissed alerts that, had they been recognised and appropriately managed before the event, could have resulted in the undesired event being prevented.
- Corrective and preventive actions should be approved by the person responsible for the organisational review programme and implemented within a specified time frame.
- Once the person responsible for the organisational review programme is satisfied that the corrective action is effective, closure of the finding should be recorded along with a summary of the corrective action.
- The accountable manager should be notified of all significant findings and, on a regular basis, of the global results of the organisational review programme.

Following is a typical example of a simplified organisational review checklist, **to be adapted as necessary to cover the CAME procedures:**

**1 – Scope of work**

- All aircraft under contract are covered in the Form 14.
- The scope of work in the CAME does not disagree with the Form 14.
- No work has been performed outside the scope of the Form 14 and the CAME.
- Is it justified to retain in the approved scope of work aircraft types for which the organisation has no longer aircraft under contract?

**2 – Airworthiness situation of the fleet**

- Does the continuing airworthiness status (AD, maintenance programme, life limited components, deferred maintenance, ARC validity) show any expired items? If so, are the aircraft grounded?

**3 – Aircraft maintenance programme**

- Check that all revisions to the TC/STC holders Instructions for Continuing Airworthiness, since the last review, have been (or are planned to be) incorporated in the maintenance programme, unless otherwise approved by the Competent Authority.
- Has the maintenance programme been revised to take into account all modifications or repairs impacting the maintenance programme?
- Have all maintenance programme amendments been approved at the right level (competent authority or indirect approval)?
- Does the status of compliance with the maintenance programme reflect the latest approved maintenance programme?

- Has the use of maintenance programme deviations and tolerances been properly managed and approved?

**4 – Airworthiness Directives (and other mandatory measures issued by the competent authority)**

- Have all ADs issued since the last review been incorporated into the AD status?
- Does the AD status correctly reflect the AD content: applicability, compliance date, periodicity...? (sample check on ADs)

**5 – Modifications/repairs**

- Are all modifications/repairs listed in the corresponding status approved in accordance with M.A.304? (sample check on modifications/repairs)
- Have all the modifications/repairs which have been installed since the last review been incorporated in the corresponding status? (sample check from the aircraft/component logbooks)

**6 – Relations with the owners/operators**

- Has a contract (in accordance with Appendix I to Part-M) been signed with each external owner/operator, covering all the aircraft whose airworthiness is managed by the CAMO?
- Have the owners/operators under contract fulfilled their obligations identified in the contract? As appropriate:
  - Are the pre-flight checks correctly performed? (interview of pilots)
  - Are the technical log or equivalent correctly used (record of flight hours/cycles, defects reported by the pilot, identification of what maintenance is next due etc.)?
  - Did flights occur with overdue maintenance or with defects not properly rectified or deferred? (sample check from the aircraft records)
  - Has maintenance been performed without notifying the CAMO (sample check from the aircraft records, interview of the owner/operator)?

**7 – Personnel**

- Check that the current accountable manager and other nominated persons are correctly identified in the approved CAME.
- If the number of personnel has decreased or if the activity has increased, check that the organisation still has sufficient staff.
- Check that the qualification of all new personnel (or personnel with new functions) has been appropriately assessed.
- Check that the staff has been trained, as necessary, to cover changes in:
  - regulations,
  - competent authority publications,
  - the CAME and associated procedures,
  - the approved scope of work,

- maintenance data (significant ADs, SBs, ICA amendments, etc.).

**8 – Maintenance contracted**

- Sample check of maintenance records:
  - Existence and adequacy of the work order,
  - Data received from the maintenance organisation:
    - Valid CRS including any deferred maintenance
    - List of removed and installed equipment and copy of the associated Form 1 or equivalent.
- Obtain a copy of the current approval certificate (Form 3) of the maintenance organisations contracted.

**9 – Technical records and record-keeping**

- Have the certificates (Form 1 and Conformity certificates) been properly collected and recorded?
- Perform a sample check of technical records to ensure completeness and storage during the appropriate periods.
- Is storage of computerised data properly ensured?

**10 – Occurrence reporting procedures**

- Check that reporting is properly performed,
- Actions taken and recorded.

**11 – Airworthiness review**