



# Notice of Proposed Amendment 2014-27

## Continuing Airworthiness Management Organisations' (CAMOs) and Part-145 organisations' responsibilities

RMT.0217 (M.029) — 2.12.2014

### EXECUTIVE SUMMARY

The objective of this Notice of Proposed Amendment (NPA) is to mitigate the risks linked to a faulty assessment of the responsibilities of CAMOs and maintenance organisations, especially in relation to the coordination needed in complex maintenance and operational arrangements. This includes the following aspects:

- (a) the responsibilities linked to the determination of the airworthiness of the aircraft, including the procedures and documentation needed to ensure its notification to the flight crew;
- (b) the responsibilities linked to the performance, coordination and release of maintenance;
- (c) the process followed for the release of maintenance.

This NPA mostly affects Part-145 organisations involved in aircraft maintenance (A-rated organisations). Generally, Part-145 organisations involved in component maintenance (B/C/D-rated), Subpart-F maintenance organisations, and independent certifying staff are not involved in such complex maintenance arrangements.

Applicability		Process map	
Affected regulations and decisions	Annex I (Part-M) and Annex II (Part-145) to Commission Regulation (EC) No 2042/2003; Decision 2003/19/RM (AMC/GM to Part-145)	Concept Paper:	No
Affected stakeholders	A-rated Part-145 maintenance organisations; Continuing Airworthiness Management Organisations (CAMOs); aircraft owners; aircraft operators; competent authorities (including EASA)	Terms of Reference:	12.3.2013
Driver/origin	Safety	Rulemaking group:	Yes
Reference:	EASA Opinion No 06/2010 'Part-145 Single and Multiple Release'; AAIB Bulletin 9/2010; Safety Recommendation 2010-072	RIA type:	Light
		Technical consultation during NPA drafting:	No
		Duration of NPA consultation:	3 months
		Review group:	Yes
		Focussed consultation:	Yes
		Publication date of the Opinion:	2017/Q1
		Publication date of the Decision:	2018/Q1



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## 1. Procedural information

### 1.1. The rule development procedure

The European Aviation Safety Agency (hereinafter referred to as the 'Agency') developed this Notice of Proposed Amendment (NPA) in line with Regulation (EC) No 216/2008<sup>1</sup> (hereinafter referred to as the 'Basic Regulation') and the Rulemaking Procedure<sup>2</sup>.

This rulemaking activity is included in the Agency's 2014–2017 Rulemaking Programme under RMT.0217 (former task number M.029).

The text of this NPA has been developed by the Agency based on the input of the Rulemaking Group RMT.0217 (M.029). It is hereby submitted for consultation of all interested parties<sup>3</sup>.

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

### 1.2. The structure of this NPA and related documents

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

### 1.3. How to comment on this NPA

Please submit your comments using the automated **Comment-Response Tool (CRT)** available at <http://hub.easa.europa.eu/crt/><sup>4</sup>.

The deadline for submission of comments is **2 March 2015**.

### 1.4. The next steps in the procedure

A public workshop will be organised by EASA on 4 December 2014 in order to explain the content of the NPA and to receive feedback.

Following the conclusion of the NPA public consultation period, the Agency will review all the comments submitted through CRT.

The outcome of the NPA public consultation will be reflected in the respective Comment-Response Document (CRD).

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<sup>1</sup> Regulation (EC) No 216/2008 of the European Parliament and the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC (OJ L 79, 19.3.2008, p. 1), as last amended by Commission Regulation (EU) No 6/2013 of 8 January 2013 (OJ L 4, 9.1.2013, p. 34).

<sup>2</sup> The Agency is bound to follow a structured rulemaking process as required by Article 52(1) of the Basic Regulation. Such process has been adopted by the Agency's Management Board and is referred to as the 'Rulemaking Procedure'. See Management Board Decision concerning the procedure to be applied by the Agency for the issuing of Opinions, Certification Specifications and Guidance Material (Rulemaking Procedure), EASA MB Decision No 01-2012 of 13 March 2012.

<sup>3</sup> In accordance with Article 52 of the Basic Regulation and Articles 5(3) and 6 of the Rulemaking Procedure.

<sup>4</sup> In case of technical problems, please contact the CRT webmaster ([crt@easa.europa.eu](mailto:crt@easa.europa.eu)).



## 2. Explanatory Note

### 2.1. Overview of the issues to be addressed

From 2006 to 2010, the Agency was involved in the rulemaking task 145.012 related to 'Part-145 Single and Multiple Release'. The objective of said task was to clarify the process of maintenance release to service as well as the responsibilities of contracted Part-145 organisations when performing and releasing maintenance. However, the scope of the task did not cover the responsibilities associated to the determination of the airworthiness of the aircraft.

The consultation performed during this task (NPA 2007-09 and CRD 2007-09 'Part-145 single and multiple releases'), the comments received during the workshop held in Cologne on 30 September 2010, and the discussions held between the Agency and the competent authorities during several Standardisation conferences showed to the Agency that there were still very different Implementing Rule (IR) interpretations as well as areas where the IR may not be fully consistent or accurate in relation to CAMO and Part-145 responsibilities as well as in relation to the accountability of certifying staff when releasing maintenance.

In addition, a certain number of comments showed that it was necessary to look at the problem not only from the Part-145 point of view, but also from the CAMO perspective.

Furthermore, in 2010 the Agency was notified of the AAIB Bulletin 9/2010 (issued by the Air Accidents Investigation Branch, UK), related to a serious incident that happened on 12 January 2009 and involved a Boeing 737, registration G-EZJK. This incident happened following a process where the operator was handing back an aircraft which was previously on lease, and where the operator and its base maintenance provider had concluded various contracts with third-party companies to carry out and supervise any associated maintenance as discrete packages of work. Among other safety recommendations contained in this AAIB Bulletin, there was one (Safety Recommendation 2010-072) which recommended the Agency to review the IRs and guidance in OPS1, Part-M and Part-145 in order to ensure that they adequately address complex maintenance and operational arrangements. It further highlighted the need for the assessment of the overall organisational structure, interfaces, procedures, roles, responsibilities and qualifications/competencies of key personnel across all sub-contract levels.

All the above led the Agency to the conclusion that the work performed under task 145.012 may be incomplete if it is not addressing at the same time the issues related to the determination of the final airworthiness of the aircraft.

As a consequence, Opinion No 06/2010 was issued by the Agency proposing the following:

- (a) to close task 145.012 without proposing any changes to existing IRs or AMC/GM at that stage;
- (b) in line with the Safety Recommendation 2010-072 issued by the AAIB UK, to reap the benefits of the work performed during task 145.012 and start the task RMT.0217 (M.029) in order to address simultaneously the responsibilities (and associated procedures) of CAMOs and Part-145 organisations for maintenance, coordination, aircraft release and determination of aircraft airworthiness.

### 2.2. Objectives

As described in the Terms of Reference for this task, the objective is to mitigate the risks linked to a faulty assessment of the responsibilities of CAMOs and maintenance organisations, especially in relation to the coordination needed in complex maintenance and operational arrangements. This includes the following aspects:



- (a) the responsibilities linked to the determination of the airworthiness of the aircraft, including the procedures and documentation needed to ensure its notification to the flight crew;
- (b) the responsibilities linked to the performance, coordination and release of maintenance;
- (c) the process followed for the release of maintenance.

All these areas should be subject to hazard identification and risk assessment in the CAMO and Part-145 organisations.

It is important to note that this NPA mostly affects Part-145 organisations involved in aircraft maintenance (A-rated organisations). Generally, Part-145 organisations involved in component maintenance (B/C/D-rated), Subpart-F maintenance organisations, and independent certifying staff are not involved in such complex maintenance arrangements.

### **2.3. Summary of the Regulatory Impact Assessment (RIA)**

The more detailed *light RIA* is contained in Section 4 of this NPA. The following is a summary of it.

#### **2.3.1. Safety impact**

The proposed changes to the IR and AMC material are in line with the Safety Recommendation 2010-072 issued by the AAIB UK in its Bulletin 9/2010. They are expected to have a positive impact on safety by improving the coordination between the different organisations involved in the continuing airworthiness management and maintenance of aircraft, especially when complex maintenance and operational arrangements are put in place.

In addition, the clarification that a Certificate of Release to Service (CRS) only certifies a certain maintenance and does not necessarily certify that the aircraft/component is airworthy should reduce the risk of installing components which do not meet all the airworthiness requirements.

#### **2.3.2. Environmental impact**

No environmental impact is anticipated.

#### **2.3.3. Social impact**

The proposed changes do not affect the qualification requirements, authorisation process or privileges of persons and organisations, and they neither favour nor place any particular community or sector at a disadvantage.

On the contrary, the proposed changes will define better the responsibilities of each party, thus improving legal certainty and reducing the possibility of facing unfair liabilities.

#### **2.3.4. Economic impact**

The level of economic impact will depend on the degree of changes the involved organisations (maintenance organisations, CAMOs and competent authorities) will have to make to their current procedures and practices.

It is important to note that the economic impact will be higher for those organisations which, taking advantage of the lack of clarity of certain aspects of current IRs/AMC/GM, do not have a robust system to ensure the proper coordination of continuing airworthiness management and maintenance activities. It will also be higher for those competent authorities which do not have adequate oversight of the contracting/sub-contracting arrangements developed by CAMOs and maintenance organisations.



Organisations already having a robust system in place are expected to suffer a very limited economic impact. Other Part-145 organisations will be subject to a higher economic impact proportional to the level of deficiency of their current system.

Nevertheless, in the long run, any negative economic impact should be compensated — if not outweighed — by the savings made from a more robust system and the reduced number of accidents/incidents and of legal disputes due to allocation of unclear responsibilities.

Furthermore, the abolition of non-useful documents, such as the ‘maintenance statement’, the increase of flexibility provided for the development of the operator’s technical log system, and the clarification of the scope of auditing, expected from operators, of the contracted maintenance organisations should result in a positive economic impact.

**Stakeholders are in particular invited to provide comments and data related to the above assessment of economic impacts.**

### **2.3.5. General Aviation and proportionality issues**

The changes proposed in this NPA should have a very limited impact on General Aviation since most of the affected provisions are only applicable to Commercial Air Transport (CAT) operators and to maintenance organisations maintaining those aircraft. This is the case of the provisions relating to:

- the operators’ technical log system;
- sub-contracting of continuing airworthiness management tasks by CAT operators;
- sub-contracting and contracting provisions contained in formal contracts concluded between a CAT operator and the corresponding Part-145 organisations.

The only provisions which apply to all aircraft and types of operations, including General Aviation, are those related to the coordination of maintenance activities and the associated responsibilities of the owner/operator/CAMO and the persons/organisations performing maintenance.

However, no negative impact is anticipated on the General Aviation community because generally owners, operators, CAMOs, maintenance organisations and independent certifying staff involved in this category of aircraft and operations do not have to deal with complex maintenance arrangements requiring complex coordination. Furthermore, there is no requirement in the regulation for the owner/operator/CAMO to conclude formal maintenance contracts for these aircraft.

### **2.3.6. Impact on ‘better regulation’ and harmonisation**

The proposed changes are expected to have a positive impact on the level playing field between organisations located in different countries, in particular with regard to:

- the possibility for the operator to contract more than one maintenance organisation;
- the options allowed for the contractual arrangements between operators and maintenance organisations;
- the level of oversight of the different competent authorities of those contractual arrangements; and
- the expected content of the technical log system and when it is not necessary for it to be on board.

In addition, the proposed changes are expected to provide better legal certainty, in particular with regard to the allocation of responsibilities in case of an accident/incident.



## 2.4. Overview of the proposed amendments

The proposed amendments to Commission Regulation (EC) No 2042/2003 (Annex I 'Part-M' and Annex II 'Part-145') and the associated AMC/GM are the following:

### Responsibilities of the owner/operator/CAMO

- The current rule (M.A.201(h)2) requires the commercial air transport operator to be approved under Part-145 or to contract such an organisation. This wording may give the impression that a single contract, covering the full scope of maintenance, has to be signed between the operator and one Part-145 organisation, not being possible to sign several contracts with different Part-145 organisations.

However, the intention of the rule has always been to allow separate contracts with different Part-145 organisations, each of them covering a specific scope of work.

As a consequence, M.A.201(h)2 has been amended to make clear that it is possible to sign several contracts. In addition, and for consistency reasons, the following paragraphs have also been amended:

- M.A.708(b)7, M.A.708(c), and AMC M.A.708(c), paragraphs 1 and 7.
  - M.B.701(a)4.
- The current point M.A.301 contains the list of tasks required in order to ensure the continuing airworthiness of the aircraft. M.A.301, item 3, has been amended to clearly specify the coordination of all maintenance activities when several organisations are involved. In addition, guidance has been provided in AMC M.A.301-3 to reinforce the need for an assessment of the overall organisational structure, interfaces, workload, procedures, roles, responsibilities and qualifications/competencies of key personnel in order to determine the amount and methods of coordination.

An identical amendment has been made to point M.A.708(b), item 4, for the case where a CAMO manages the continuing airworthiness of the aircraft. A new AMC M.A.708(b)4 has been created to describe the procedures that should be developed by the CAMO in order to ensure the appropriate coordination of activities.

In addition:

- Appendix V to AMC M.A.704 has been amended to include in the Continuing Airworthiness Management Exposition of the CAMO these coordination procedures;
  - point 2.22 of Appendix XI to AMC M.A.708(c) has been amended to make sure that the contract between the operator and the Part-145 organisation addresses these coordination procedures; and
  - AMC 145.A.47(a) has been amended to ensure that this coordination is taken into account during the production planning activities.
- A new GM M.A.301 has been created to provide more guidance on which continuing airworthiness tasks are the responsibility of the owner/operator/CAMO and which ones are the responsibility of the contracted maintenance organisation.

In particular, it clarifies that a certificate of release to service issued by a maintenance organisation only certifies that the maintenance requested has been completed satisfactorily and in accordance with the applicable IRs and the maintenance organisation's approved





procedures, not necessarily meaning that the aircraft is ready for flight. The determination of the airworthiness status of the aircraft before each flight is the responsibility of the owner/operator/CAMO although, in the case of commercial air transport, the final communication to the flight crew of the airworthiness status of the aircraft may be performed by the contracted maintenance organisation if this is allowed by the procedures established by the operator, and always under the responsibility of the operator and as described in the maintenance contract. A similar wording has been introduced in AMC 145.A.50(a).

This GM M.A.301 also provides guidance on what is the acceptable scope of auditing between the owner/operator/CAMO and the contracted maintenance organisation.

For consistency reasons, AMC M.A.201(h), paragraph 7, has also been amended accordingly.

### **Sub-contracting of continuing airworthiness management tasks by a commercial air transport operator**

In the case of aircraft involved in commercial air transport, M.A.201(h)1 requires the operator to be approved as a CAMO as part of the air operator certificate. Furthermore, AMC M.A.201(h)(1) provides acceptable methods for sub-contracting certain continuing airworthiness management tasks under the operator's own quality system, always having in mind that the operator is responsible for the airworthiness of the aircraft and has to keep adequate control of the sub-contracted activities.

This AMC M.A.201(h)(1) has been amended in order to include the coordination of maintenance activities as one of the tasks which could be sub-contracted by the operator under its own quality system. This could be the case, for example, for the sub-contracting of such coordination to one of the contracted maintenance organisations, although in all cases the operator is ultimately responsible for such coordination.

Furthermore, Appendix II to AMC M.A.201(h)(1), paragraph 2.5, has been amended to ensure that the sub-contract arrangement contains the associated procedures describing how the coordination is performed and the level of communication required with the operator.

### **Contracting and sub-contracting of maintenance**

According to M.A.301, item 3, one of the tasks required in order to keep any aircraft airworthy is the accomplishment of all the maintenance required by the aircraft maintenance programme.

- In those cases where the owner is not required to contract a CAMO (for example, in the case of other than large aircraft which are not involved in commercial operations), the owner is responsible for ensuring that this maintenance is performed by maintenance organisations, independent certifying staff or the pilot-owner, as applicable. However, there are no specific requirements for formal contracts between the owner and the person/organisation performing maintenance and, certainly, the owner does not have to develop procedures on how this maintenance should be performed. It is just the owner's responsibility to ensure that maintenance is performed by appropriate persons/organisations and that the corresponding release to service is kept on record.
- However, for those cases where a CAMO is managing the continuing airworthiness of the aircraft (in addition to the requirement contained in M.A.301, item 3), there is a similar requirement in M.A.708(b), paragraph 4. This means that the CAMO must have appropriate procedures to ensure compliance with this requirement.



Furthermore, in the particular case of commercial air transport, M.A.708(c) requires the CAMO (operator's CAMO) to conclude appropriate contracts in order to ensure that all maintenance is ultimately performed by approved Part-145 organisations.

As has been described above, only in the case of commercial air transport there is an obligation for the CAMO (operator's CAMO) to conclude formal maintenance contracts with Part-145 organisations (M.A.708(c)), and these contracts should take the form of the contract described in Appendix XI to AMC M.A.708(c).

Although this obligation is very clear in the IR (M.A.708(c)), certain lack of clarity in the IR and certain lack of guidance has often led to the situation where a Part-145 maintenance organisation contracts maintenance to other Part-145 organisations or sub-contracts maintenance under its own quality system without the involvement of the operator. In addition, it is not fully clear what is the involvement of the competent authority when reviewing/approving such arrangements.

In order to address these issues, the following amendments have been introduced:

- a new point 8 has been added in AMC M.A.708(c);
- point 4 of AMC M.B.701(a) has been amended;
- a new point 4 has been added in AMC M.B.702(b);
- a new point 6 has been added in AMC M.B.704(b);
- point 2.3 of Appendix XI to AMC M.A.708(c) has been amended;
- point 145.A.70(a)16 and AMC 145.A.70(a), point 5.4, have been deleted.

#### **Aircraft continuing airworthiness records and operator's technical log system**

- The aircraft continuing airworthiness records and the operator's technical log system are essential elements for the determination of the airworthiness status of the aircraft, which, as already mentioned, is the responsibility of the owner/operator/CAMO.

The following amendments have been made:

- A new GM M.A.305(a) has been created to clarify that the fact that the entries in the aircraft continuing airworthiness records can be delayed up to 30 days does not remove the obligation of the owner/operator/CAMO organisation to know the airworthiness status of the aircraft before each flight takes place and, in particular, the need to ensure that all the maintenance ordered has been released or properly deferred. That is one of the purposes of having a requirement for ensuring the appropriate coordination of maintenance activities in M.A.301, item 3, and M.A.708(b), item 4.
- Several amendments have been made to the technical log system in M.A.306 and AMC M.A.306(a) in order to make clear:
  - o the provisions for the issuance of a Certificate of Release to Service (CRS) after any maintenance, including defect rectification;
  - o the current aircraft maintenance status;
  - o the possibility to have it on board or somewhere else, as long as it can be ensured that no maintenance will become overdue.



- o the fact that the technical log is a system and not just a book, which means that it can be paper-based or computer-based, or a combination of both. This change has been also made to AMC M.A.301-1.

In particular, the wording 'out-of-phase maintenance' has been deleted from M.A.306(a)3 because these tasks are considered also 'scheduled maintenance', which is already mentioned in this point.

- In addition, it is important to note that there are other rulemaking activities which may interface with the changes proposed in this NPA. In particular:
  - Agency Opinion No 06/2012 on the 'Alignment of Commission Regulation (EC) No 2042/2003 with Regulation (EC) No 216/2008 and with ICAO Annex 6 requirement for human factor principles to be observed in the design and application of the aircraft maintenance programme'<sup>5</sup>, whose Comitology procedure is very close to finalisation, with the rule expected to be adopted by the Commission at the beginning of 2015. Once adopted, the content of this NPA will need to be aligned, in particular due to the fact that the operator's technical log system and the contracts between operator and maintenance organisation may become also applicable to certain commercial operations other than commercial air transport.
  - Agency Opinion No 12/2013 on 'Control of suppliers'<sup>6</sup>, where certain provisions are amended in relation to the acceptance of components by Part-145 maintenance organisations.
  - The ongoing task RMT.0209 (M.014) related to the possibility for commercial air transport operators to contract a CAMO.
  - NPA 2013-12 on the 'Amendment to Decision 2003/19/RM (AMC to Part-145) to adapt it to the process of granting Part-145 approvals to maintenance organisations located outside the territories of the Member States'<sup>7</sup>, where a GM 145.A.50 was introduced to clarify the meaning of an 'EASA Form 1' and the difference between certifying that certain maintenance was properly performed and declaring that a component is airworthy.
  - NPA 2014-11 'Functions and responsibilities of B1 and B2 support staff — link with sign-off' (RMT.0097 (145.024)) introduces provisions related to the functions, qualifications and responsibilities of certifying staff, support staff and personnel authorised to sign off when performing and releasing maintenance, in particular related to the coordination of maintenance activities.

<sup>5</sup> <http://www.easa.europa.eu/document-library/opinions/opinion-062012>

<sup>6</sup> <http://www.easa.europa.eu/document-library/opinions/opinion-122013>

<sup>7</sup> <http://www.easa.europa.eu/document-library/notices-of-proposed-amendments/npa-2013-12>



### 3. Proposed amendments

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

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

#### 3.1. Draft Regulation (Draft EASA Opinion)

##### M.A.201 Responsibilities

...

- (h) In the case of commercial air transport the operator is responsible for the continuing airworthiness of the aircraft it operates and shall:
  1. be approved, as part of the air operator certificate issued by the competent authority, pursuant to M.A. Subpart G for the aircraft it operates; and
  2. be approved in accordance with Part-145 or contract such as an organisation(s); and
  3. ensure that paragraph (a) is satisfied.

...

##### M.A.301 Continuing airworthiness tasks

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

1. the accomplishment of pre-flight inspections;
2. the rectification in accordance with the data specified in point M.A.304 and/or point M.A.401, as applicable, of any defect and damage affecting safe operation, taking into account, for all large aircraft or aircraft used for commercial air transport, the minimum equipment list and configuration deviation list as applicable to the aircraft type;
3. the accomplishment of all maintenance, in accordance with the M.A.302 approved aircraft maintenance programme, including the appropriate coordination of all maintenance activities;
4. for all large aircraft or aircraft used for commercial air transport the analysis of the effectiveness of the M.A.302 approved maintenance programme;
5. the accomplishment of any applicable:
  - (i) airworthiness directive,
  - (ii) operational directive with a continuing airworthiness impact,



- (iii) continued airworthiness requirement established by the Agency,
  - (iv) measures mandated by the competent authority in immediate reaction to a safety problem;
6. the accomplishment of modifications and repairs in accordance with M.A.304;
  7. for non-mandatory modifications and/or inspections, for all large aircraft or aircraft used for commercial air transport the establishment of an embodiment policy;
  8. maintenance check flights when necessary.

#### **M.A.306 Operator's technical log system**

- (a) In the case of commercial air transport, in addition to the requirements of M.A.305, an operator shall use an aircraft technical log system containing the following information for each aircraft:
  1. information about each flight, necessary to ensure continued flight safety, and
  2. details of the certificate of release to service issued after any maintenance ~~the current aircraft certificate of release to service,~~ and
  3. the current ~~maintenance statement giving the~~ aircraft maintenance status, including of what scheduled and out of phase maintenance is next due, except that such information ~~the competent authority may agree to the maintenance statement being~~ may be kept elsewhere by the M.A. Subpart G organisation instead of being on board if it can be demonstrated that the necessary controls are in place to ensure that no required maintenance action is overdue or will become due during the next flight, and
  4. all outstanding deferred defects ~~rectifications~~ that affect the operation of the aircraft, and
  5. any necessary guidance instructions on maintenance support arrangements.
- (b) The aircraft technical log system and any subsequent amendment shall be approved by the competent authority.
- (c) An operator shall ensure that the aircraft technical log is retained for 36 months after the date of the last entry.
- (d) The aircraft technical log system shall be available on board the aircraft except the information described in M.A.306(a)3.

#### **M.A.708 Continuing airworthiness management**

- (a) All continuing airworthiness management shall be carried out according to the prescriptions of M.A Subpart C.
- (b) For every aircraft managed, the approved continuing airworthiness management organisation shall:
  1. develop and control a maintenance programme for the aircraft managed including any applicable reliability programme,
  2. present the aircraft maintenance programme and its amendments to the competent authority for approval, unless covered by an indirect approval procedure in accordance with point M.A.302(c),



and provide a copy of the programme to the owner of aircraft not involved in commercial air transport,

3. manage the approval of modification and repairs,
  4. ensure that all maintenance is carried out in accordance with the approved maintenance programme and released in accordance with M.A. Subpart H, and that all maintenance activities are properly coordinated,
  5. ensure that all applicable airworthiness directives and operational directives with a continuing airworthiness impact, are applied,
  6. ensure that all defects discovered during scheduled maintenance or reported are corrected by an appropriately approved maintenance organisation,
  7. ensure that the aircraft is maintained by ~~taken to an~~ appropriately approved maintenance organisations whenever necessary,
  8. coordinate scheduled maintenance, the application of airworthiness directives, the replacement of service life limited parts, and component inspection to ensure the work is carried out properly,
  9. manage and archive all continuing airworthiness records and/or operator's technical log.
  10. ensure that the mass and balance statement reflects the current status of the aircraft.
- (c) In the case of commercial air transport, when the operator is not appropriately approved to Part-145, the operator shall ~~establish~~ conclude a written maintenance contract between the operator and a Part-145 approved organisation or another operator, detailing the functions specified under M.A.301-2, M.A.301-3, M.A.301-5 and M.A.301-6, ensuring that all maintenance is ultimately carried out by a Part-145 approved maintenance organisations and defining the support of the quality functions of M.A.712(b). The aircraft base, scheduled line maintenance and engine maintenance contracts, together with all amendments, shall be approved by the competent authority. However, in the case of:
1. an aircraft requiring unscheduled line maintenance, the contract may be in the form of individual work orders addressed to the Part-145 maintenance organisation.
  2. component maintenance, including engine maintenance, the contract as referred to in paragraph (c) may be in the form of individual work orders addressed to the Part-145 maintenance organisation.

### **M.B.701 Application**

- (a) For commercial air transport the competent authority shall receive for approval with the initial application for the air operator's certificate and where applicable any variation applied for and for each aircraft type to be operated:
1. the continuing airworthiness management exposition;
  2. the operator's aircraft maintenance programmes;
  3. the aircraft technical log;



4. where appropriate ~~the technical specification of~~, the maintenance contracts between the operator and Part-145 approved maintenance organisation(s), or between the operator and another operator as allowed by M.A.708(c).
- (b) Where facilities are located in more than one Member State the investigation and continued oversight of the approval shall be carried out in conjunction with the competent authorities designated by the Member States in whose territory the other facilities are located.

#### **145.A.70 Maintenance organisation exposition**

(a)

...

~~16. a list of contracted organisations, where applicable.~~

...

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

#### **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 H25.1, 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.~~ See also GM M.A.301.



**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 sub-contracting 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 **concluded** ~~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 sub-contractor 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 **and/or coordination** of maintenance **(see Note 1)**
  - (d) reliability monitoring, engine health monitoring
  - (e) maintenance programme development and amendments
  - (f) any other activities which do not limit the operator's responsibilities as agreed by the competent authority.

**Note 1:** The coordination of maintenance activities when several organisations are involved in the performance of such maintenance may be sub-contracted to another organisation, such as one of the contracted maintenance organisations. In any case, such coordination remains under the operator's responsibility.





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 the AOC or EASA Form 14 as applicable.

### **GM M.A.301 Continuing airworthiness tasks**

The tasks listed in M.A.301 aim at ensuring the continuing airworthiness of the aircraft and the serviceability of both operational and emergency equipment. These tasks are the responsibility of the owner/operator/M.A. Subpart G organisation (as applicable according to M.A.201), except for the execution and release of maintenance which are the responsibility of the maintenance organisation or the person who performed them.

As a consequence, the owner/operator/M.A. Subpart G organisation is still responsible for planning and ordering the maintenance, as well as for verifying that all the maintenance ordered has been released (or deferred) and that this has been appropriately recorded. This means that the owner/operator/M.A. Subpart G organisation is responsible for auditing/checking how the terms of existing contracts with maintenance organisations are implemented and for the availability of records showing that all contracted/ordered maintenance has been released or properly deferred. However, the owner/operator/M.A. Subpart G organisation is not obliged to audit or check how the maintenance organisation is performing the actual maintenance work nor any of the aspects covered by the maintenance organisation approval, although the owner/operator/M.A. Subpart G organisation is entitled to do so if they wish.

It must be noted that a certificate of release to service issued by a maintenance organisation certifies that the maintenance requested has been completed satisfactorily and in accordance with the applicable regulations and the maintenance organisation's approved procedures. However, it does not necessarily mean that the aircraft is ready for flight. Determining the airworthiness status before each flight takes place is the



responsibility of the owner/operator/M.A. Subpart G organisation. This does not preclude that, in the case of commercial air transport, the final communication to the flight crew of the airworthiness status of the aircraft is performed by a contracted maintenance organisation if this is allowed by the procedures established by the operator, and always under the responsibility of the operator and as described in the maintenance contract.

### **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 system 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 next flight. The method used for the inspection of due maintenance will depend on how this information is controlled.
  - (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.301-3 Continuing airworthiness tasks**

...

The coordination of maintenance activities is essential in the case of complex maintenance and operational arrangements (such as when several organisations are contracted, or when several levels of contracting/sub-contracting are included). An assessment of the overall organisational structure, interfaces, workload, procedures, roles, responsibilities and qualifications/competencies of key personnel across all contract/sub-contract levels within such arrangements should be performed in order to determine the amount and methods of coordination that will be required.

### **GM M.A.305(a) Aircraft continuing airworthiness record system**

The fact that the entries on the aircraft continuing airworthiness records can be delayed up to 30 days does not remove the obligation of the owner/operator/M.A. Subpart G organisation to know the airworthiness status of the aircraft before each flight takes place and, in particular, the need to ensure that all the maintenance ordered has been released or properly deferred (as mandated in M.A.201, M.A.301 and M.A.708). That is one of the purposes of having a requirement for ensuring the appropriate coordination of maintenance activities in M.A.301, item 3, and M.A.708(b), item 4.

### **AMC M.A.306(a) Operator's 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 operator's technical log system ~~aircraft log book where even if 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 ~~below here which happens to use a 5 section document / computer system (the number assigned to each one of the sections does not correspond to the number of the points M.A.306(a)1 through 5):~~

**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 does not need to receive such details if ~~controlled otherwise in accordance with M.A.306(a)3. 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 **in accordance with M.A.306(a)3.** ~~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 **deferral (except for deferred MEL items without maintenance action)** or **scheduled maintenance actions 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~~ **remains** on the aircraft and one copy ~~may be~~ **is** 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 **obtain contact maintenance support engineering** if problems arise whilst operating the routes etc.

#### **AMC M.A.708(b)4 Continuing airworthiness management**

The procedures established by the M.A. Subpart G organisation for the coordination of maintenance activities performed by different organisations should ensure that:

- appropriate work orders are submitted to each contracted maintenance organisation, either directly by the M.A. Subpart G organisation or as permitted through the contractual arrangements between the M.A. Subpart G organisation and the maintenance organisations.
- no conflict exists between the tasks performed by different Part-145 organisations, and if such conflict arises, it is properly managed in accordance with the applicable maintenance or operator approved procedures. Some examples are the following (but not limited to):
  - ETOPS operator's procedures.
  - need for duplicate inspections or flight tests if different organisations are working on several identical systems.
  - need for one organisation not to put the aircraft in certain configuration (electrical power, hydraulic power, flight control configuration, airplane on jacks, etc.) if this is going to adversely affect the work performed by another organisation.
  - need for one organisation to temporarily stop their work (or even issue a release for an incomplete maintenance work order) because of the maintenance performed by another organisation.
- all the maintenance ordered by the Part-M Subpart G organisation has been properly released or deferred by the different maintenance organisations. This is essential in the case of incomplete maintenance as well as additional maintenance required because of the maintenance performed (defects, etc.).
- a communication system has been established between the Part-M Subpart G organisation, the contracted Part-145 organisations and any sub-contractors, with particular attention to those cases where different organisations are working at the same time in the same area/system.

These procedures should include the appointment by the Part-M Subpart G organisation of a representative (or a team) in the maintenance event, who will be responsible for ensuring appropriate coordination. The coordination of activities may be performed by another organisation such as one of the contracted Part-145



organisations or the contracted operator described in AMC M.A.708(c)7, always under the responsibility of the Part-M Subpart G organisation, if this is allowed by the corresponding contracts and the operator's approved procedures.

The procedures described above are essential in the case of complex maintenance and operational arrangements (such as when several organisations are contracted, or when several levels of contracting/sub-contracting are included). An assessment of the overall organisational structure, interfaces, workload, procedures, roles, responsibilities and qualifications/competencies of key personnel across all contract/sub-contract levels within such arrangements should be performed in order to determine the amount and methods of coordination.

### **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~~ legal entity, a contract should be ~~agreed~~ concluded between the operator and a maintenance organisation approved under Part-145, which specifies, in detail, the work to be performed by the maintenance organisation. Multiple contracts with different Part-145 organisations are possible in order to fully cover the scope of required maintenance. 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(s) and complying with the M.A.201 continuing airworthiness responsibility requirements, which should include a review of the contracts concluded between the contracted operator and the Part-145 maintenance organisations. 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 conclude a written maintenance contract(s) 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.

8. In the case of aircraft maintenance, in order to fully cover the scope of required maintenance, the operator may choose different contracting options with Part-145 organisations.

These contracts between an operator and a Part-145 organisation should be limited to maintenance within the scope of work of the Part-145 organisation. Nevertheless, the competent authority may accept a contract which covers maintenance not included in the scope of work of the contracted Part-145 organisation as long as the contract allows contracting out such tasks to other Part-145 organisations and such contracts are already in place. The objective is to ensure that the operator has the arrangements in place to ensure that the expected maintenance required for its fleet will be timely performed.

Some examples of acceptable arrangements are the following (but not the only ones):

- **Example 1:** The operator concludes a contract with every Part-145 organisation involved (each contract only covers tasks which are under the scope of work of the contracted Part-145



organisation) and these contracts do not allow those Part-145 organisations to contract out work to other Part-145 organisations.

- Example 2: The operator concludes contracts with one or several Part-145 organisations (each contract only covers tasks which are under the scope of work of the contracted Part-145 organisation) and these contracts allow those Part-145 organisations to contract out certain work to other Part-145 organisations.

The contracts between the operator and the Part-145 organisations (according to paragraph 2.3 of Appendix XI to this AMC) should define, to the satisfaction of the competent authority of the operator, if and how many contract-out levels are possible, as well as the conditions for such contract-out, including the applicable coordination procedures. This is essential in order to ensure that the operator complies with its responsibilities and to define the involvement of the competent authorities (oversight), in particular when the competent authority of the operator is not the same as the competent authorities of the maintenance organisations.

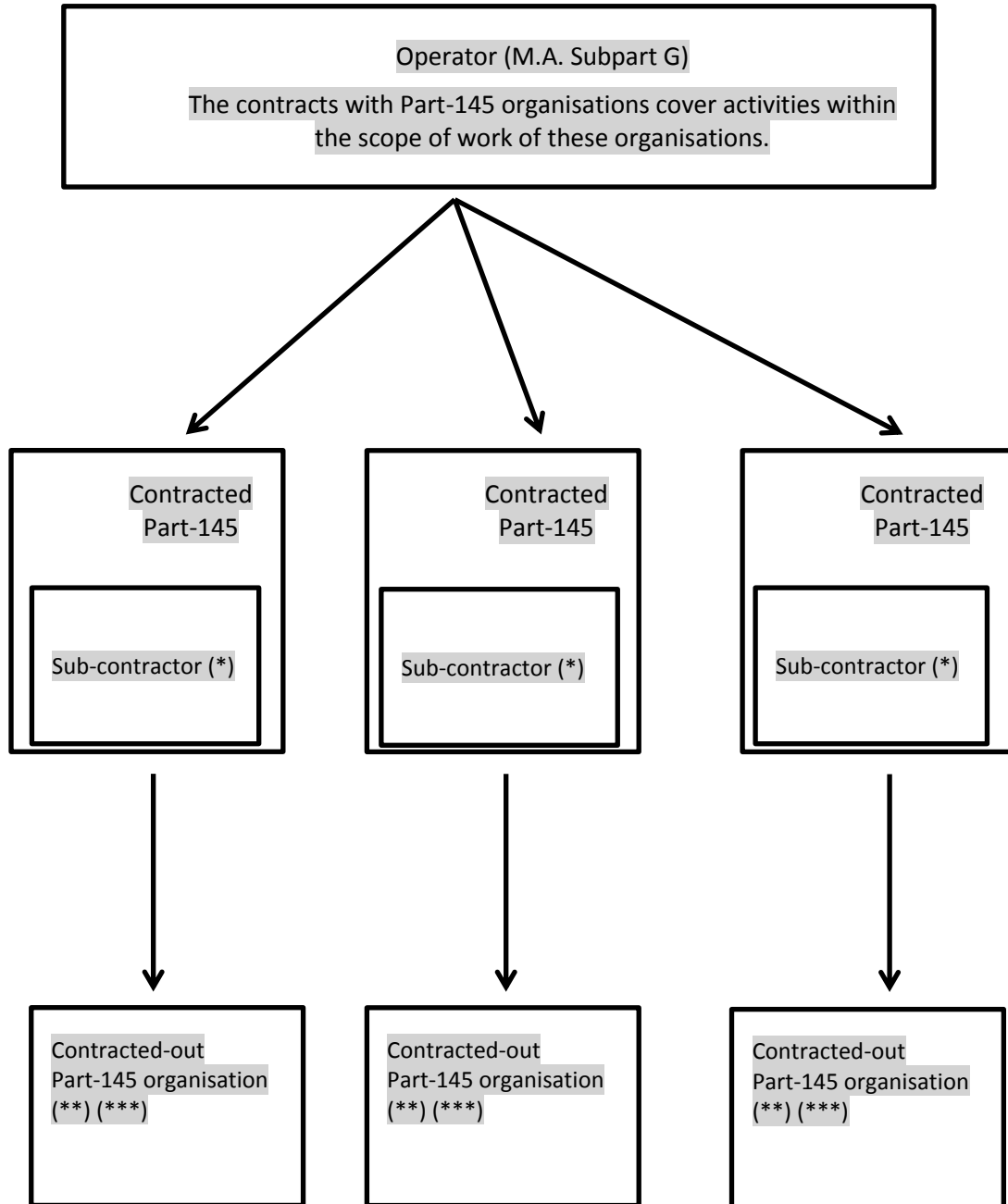
It must be noted that, as indicated in paragraph 2.3 of Appendix XI to this AMC, the operator may also include in the contract provisions which contain the conditions under which the contracted Part-145 organisations may further sub-contract, under their quality system, work to other organisations.

This means that the competent authority of the operator, when reviewing complex maintenance and operational arrangements (such as when several organisations are contracted, or when several levels of contract/sub-contract are included), should pay special attention to the way contracts ensure appropriate coordination of activities and take into account the organisational structure, interfaces, workload, procedures, roles and responsibilities across all contract/sub-contract levels.





The following diagrams illustrate the examples described above.



(\*) Sub-contracting under the Quality System of the Part-145 organisation is possible if allowed by the contract between the operator and the Part-145 organisation.

(\*\*) Not possible in 'Example 1' since it is not allowed by the contract between the operator and the Part-145 organisation.

(\*\*\*) Possible in 'Example 2' since it is allowed by the contract between the operator and the Part-145 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 concluded arrangements contracts 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 conclude further arrangements contracts in due course before the maintenance is due.

In the case where the contract between the operator and the Part-145 organisation allows the possibility of further contracting-out in accordance with paragraph 2.3 of Appendix XI, the operator should also provide these contracts as part of the requirement contained in M.B.701(a)4 in order to verify that all the anticipated maintenance can be properly performed.

In the case where the operator concludes a contract with another operator in accordance with M.A.708(c), the competent authority should request a copy of the contracts between the contracted operator and the corresponding Part-145 organisations.

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(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 sub-contracted continuing airworthiness management tasks arrangements will take into account, in the sub-contracted 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 sub-contracted organisation and where applicable contracted Part-145 maintenance organisation(s).
4. When evaluating and approving the maintenance contracts required by point M.A.708(c), the competent authority should place particular emphasis on the following aspects:
  - The contracts cover the full scope of scheduled base and line maintenance for an appropriate period of time, as required by M.B.701(a)4. This may include the need to review the contracts in place for further contracted-out activities.



- The contracts guarantee that enough manpower is available for the planned maintenance.
- The contracts specify the coordination procedures between the different organisations.

In the case where the operator concludes a contract with another operator of the same aircraft type in accordance with M.A.708(c), the competent authority should review the contracts between the contracted operator and the corresponding Part-145 organisations before approving the contract between the operators.

#### **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:
  - 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 an operator contracts maintenance to Part-145 organisations, or directly to another operator in accordance with M.A.708(c), the competent authority should be monitoring how the operator is complying with the provisions contained in the contracts, with particular attention to the way the coordination provisions are implemented.
7. ~~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 visits of a particular area.



**Appendix II to AMC M.A.201(h)(1) Sub-contracting of continuing airworthiness management tasks**

...

**2.5 Schedule maintenance and maintenance coordination**

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.

In addition, and as indicated in AMC M.A.201(h)(1), the operator may decide to sub-contract the coordination of maintenance activities, when several maintenance organisations are involved in the performance of such maintenance, to another organisation such as one of the contracted maintenance organisations. In such a case, the sub-contract arrangement described in this Appendix II should contain the associated procedures describing how the coordination is performed and the level of communication required with the operator.

...

**Appendix V to AMC M.A.704 Continuing airworthiness management organisation exposition****TABLE OF CONTENTS****Part 0 General organisation**

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**Part 1 Continuing airworthiness management procedures**

...

1.13. Check flight procedures.

1.14. Coordination procedures during maintenance performed by Part-145 organisations.

**Part 2 Quality system**

...

**Part 3 Contracted maintenance**

...

#### Part 4 Airworthiness review procedures

...

#### Part 5 Appendices

...

### PART 1 CONTINUING AIRWORTHINESS MANAGEMENT PROCEDURES

...

#### 1.13 Check flights procedures

...

#### 1.14 Coordination procedures during maintenance performed by Part-145 organisations

*(This paragraph should develop the procedures established by the continuing airworthiness management organisation to comply with point M.A.708(b)4.)*

...

#### **Appendix XI to AMC to M.A.708(c) Contracted maintenance**

...

#### 2.3. Contracting/Sub-contracting of maintenance activities by the contracted Part-145 organisation

- Sub-contracting to a third party under the Part-145 quality system:

This is the case where the Part-145 organisation contracted by the operator sub-contracts certain maintenance tasks to a third party, but the responsibility remains within the contracting Part-145 organisation (this Part-145 organisation must have the tasks within its scope of approval). Whether the third party is Part-145 approved or not is not relevant since the third party will be working under the quality system of the contracting Part-145 organisation and maintenance will be released under the approval of this organisation.

The maintenance contract between the operator and the Part-145 organisation should specify under which conditions the Part-145 approved organisation may sub-contract under its quality system 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(b). Additional guidance is provided by AMC 145.A.75(b). In addition the operator may require the Part-145 approved organisation to obtain the operator's approval before sub-contracting 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 sub-contractors 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 sub-contracting, although the competent authority will normally only be concerned with aircraft, engine and APU sub-contracting.



- Contracting-out to another Part-145 organisation which will be releasing the maintenance under its own approval:

This is the case where the Part-145 organisation contracted by the operator contracts-out certain maintenance tasks to another Part-145 organisation, transferring also the responsibility for the release of such tasks to the contracted Part-145 organisation. In such a case, the Part-145 organisation contracted by the operator does not have any responsibility related to the contracted-out maintenance, being the responsibility of the operator to agree with the content of such contracts and to ensure that the activities are properly coordinated.

This contracting-out is not part of the privileges described in 145.A.75 and may only be performed with the approval of the operator. The maintenance contract between the operator and the Part-145 organisation should specify under which conditions the Part-145 approved organisation may contract-out tasks to another Part-145 organisation.

...

## 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.

In particular, the contract should specify the procedures necessary to ensure that maintenance activities performed by several organisations are properly coordinated (refer to AMC M.A.708(b)4).

Although the determination of the airworthiness status of the aircraft before each flight takes place is always the responsibility of the owner/operator/M.A. Subpart G organisation, this does not preclude that, in the case of commercial air transport, the final communication to the flight crew of the airworthiness status of the aircraft is performed by a contracted maintenance organisation if this is allowed by the procedures established by the operator, and always under the responsibility of the operator and as described in the maintenance contract (refer to GM M.A.301).

...

## **AMC 145.A.47(a) Production planning**

1. ...
2. ...
3. When establishing the production planning procedure, consideration should be given to the following:
  - logistics,
  - inventory control,
  - square meters of accommodation,
  - man-hours estimation,
  - man-hours availability,
  - preparation of work,
  - hangar availability,
  - environmental conditions (access, lighting standards and cleanliness),
  - complexity of maintenance contracting-out and sub-contracting arrangements (such as when several organisations are contracted, or when several levels of contracting/sub-contracting are included),



including the coordination of maintenance activities when performed on behalf of the operator,

- coordination with internal and external suppliers, etc.,
- scheduling of safety-critical tasks during periods when staff are likely to be most alert.

#### **AMC 145.A.50(a) Certification of maintenance**

‘Endangers the flight safety’ means any instances 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 airworthiness directive overdue for compliance is also considered a hazard to flight safety.

A certificate of release to service issued by a maintenance organisation certifies that the maintenance requested has been completed satisfactorily and in accordance with the applicable regulations and the maintenance organisation’s approved procedures. However, it does not necessarily mean that the aircraft is ready for flight. Determining the airworthiness status of the aircraft before each flight takes place remains always the responsibility of the owner/operator/M.A. Subpart G organisation.

#### **AMC 145.A.50(b) Certification of maintenance**

1. The certificate of release to service should contain the following statement:  
‘Certifies that the work specified, except as otherwise specified, was carried out in accordance with Part-145 and in respect to that work the aircraft/aircraft component is considered ready for release to service’.  
Reference should also be made to the EASA Part-145 approval number and the identity of the person signing the release.
2. It is acceptable to use an alternate abbreviated certificate of release to service consisting of the following statement ‘Part-145 release to service’ instead of the full certification statement specified in 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 paragraph 1.
3. The certificate of release to service should relate to the task specified in the (S)TC holder’s or operator’s instructions or the aircraft maintenance programme which itself may cross-refer to maintenance data.
4. 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.
5. When extensive maintenance has been carried out, it is acceptable for the certificate of release to service to summarise the maintenance as long as there is a unique cross-reference to the work package containing full details of maintenance carried out. Dimensional information should be retained in the work-pack record.

#### **AMC 145.A.70(a) Maintenance organisation exposition**

...

### **PART 2 MAINTENANCE PROCEDURES**

- 2.1 Supplier evaluation and sub-contract control procedure
- 2.2 Acceptance/inspection of aircraft components and material from outside ~~contractors~~ suppliers

...

### **PART 5**

- 5.1 Sample of documents



- 5.2 List of Sub-contractors as per 145.A.75 (b)
- 5.3 List of Line maintenance locations as per 145.A.75 (d)
- 5.4 ~~List of contracted organisations as per 145.A.70(a)(16)~~

...





## 4. Regulatory Impact Assessment (RIA)

### 4.1. Issues to be addressed

From 2006 to 2010, the Agency was involved in the rulemaking task 145.012 related to 'Part-145 Single and Multiple Release'. The objective of said task was to clarify the process of maintenance release to service as well as the responsibilities of contracted Part-145 organisations when performing and releasing maintenance. However, the scope of this task did not cover the responsibilities associated to the determination of the airworthiness of the aircraft.

The consultation performed during this task (NPA 2007-09 and CRD 2007-09 'Part-145 single and multiple releases'), the comments received during the workshop held in Cologne on 30 September 2010, and the discussions held between the Agency and the competent authorities during several Standardisation conferences showed to the Agency that there were still very different IR interpretations, as well as areas where the IR may not be fully consistent or accurate in relation to CAMO and Part-145 responsibilities as well as in relation to the accountability of the certifying staff when releasing maintenance.

In addition, a certain number of comments showed that it was necessary to look at the problem not only from the Part-145 point of view, but also from the CAMO perspective.

Furthermore, in 2010 the Agency was notified of the AAIB Bulletin 9/2010 (issued by the Air Accidents Investigation Branch, UK), related to a serious incident that happened on 12 January 2009 and involved a Boeing 737, registration G-EZJK. This incident happened following a process where the operator was handing back an aircraft which was previously on lease, and where the operator and its base maintenance provider had concluded various contracts with third-party companies to carry out and supervise any associated maintenance as discrete packages of work. Among other safety recommendations contained in this AAIB Bulletin, there was one (Safety Recommendation 2010-072) which recommended the Agency to review the IRs and guidance in OPS1, Part-M and Part-145 in order to ensure that they adequately address complex maintenance and operational arrangements. It further highlighted the need for the assessment of the overall organisational structure, interfaces, procedures, roles, responsibilities, and qualifications/competencies of key personnel across all sub-contract levels.

All the above led the Agency to the conclusion that the work performed under task 145.012 may be incomplete if it is not addressing at the same time the issues related to the determination of the final airworthiness of the aircraft.

As a consequence, Opinion No 06/2010 was issued by the Agency proposing the following:

- (a) to close task 145.012 without proposing any changes to existing IRs or AMC/GM at that stage;
- (b) in line with the Safety Recommendation 2010-072 issued by the AAIB UK, to reap the benefits of the work performed during task 145.012 and start the task RMT.0217 (M.029) in order to address simultaneously the responsibilities (and associated procedures) of CAMOs and Part-145 organisations for maintenance, coordination, aircraft release, and determination of aircraft airworthiness.

#### 4.1.1. Safety risk assessment

As already evidenced by the AAIB Bulletin 9/2010 and the related Safety Recommendation 2010-072 described above, the lack of adequate provisions in the IRs and AMC/GM material, which take into account complex maintenance and operational arrangements, create a safety risk which has to be mitigated.



#### 4.1.2. Who is affected?

The proposed changes may affect A-rated Part-145 maintenance organisations, Continuing Airworthiness Management Organisations (CAMOs), aircraft owners, aircraft operators and competent authorities (including EASA).

Generally, Part-145 organisations involved in component maintenance (B/C/D-rated), Subpart-F maintenance organisations and independent certifying staff are not involved in such complex maintenance arrangements. In those cases, they should not be impacted.

#### 4.1.3. How could the issue/problem evolve?

In the case of the 'do nothing' option, the safety risk described in paragraph 4.1.1 above will remain. Furthermore, the situation may deteriorate due to the current increase, for economic reasons, of operators and maintenance organisations which enter into complex contracting and sub-contracting arrangements.

#### 4.2. Objectives

As described in the Terms of Reference of this task, the objective is to mitigate the risks linked to a faulty assessment of the responsibilities of CAMOs and maintenance organisations, especially in relation to the coordination needed in complex maintenance and operational arrangements. This includes the following aspects:

- (a) the responsibilities linked to the determination of the airworthiness of the aircraft, including the procedures and documentation needed to ensure its notification to the flight crew;
- (b) the responsibilities linked to the performance, coordination and release of maintenance;
- (c) the process followed for the release of maintenance.

All these areas should be subject to hazard identification and risk assessment in the CAMO and Part-145 organisations.

#### 4.3. Policy options

During the discussions of the working group it was agreed that the objectives of the rulemaking task could be met by defining more clearly the following aspects:

- (a) coordination of activities and split of responsibilities between CAMOs and maintenance organisations;
- (b) meaning of a Certificate of Release to Service (CRS);
- (c) difference between contracting maintenance and sub-contracting maintenance;
- (d) possible options for the contractual arrangements related to contracted and sub-contracted maintenance;
- (e) involvement of the competent authority in the review/approval of contractual arrangements;
- (f) content and control of job cards.
- (g) content of the operator's technical log system.

From the above-mentioned aspects, two were anticipated to result in a significant impact, depending on the selected options. These were the following:

- Meaning of a Certificate of Release to Service (CRS):



- Option 1: Not to introduce any change to the name of the term (still call it 'CRS'), but clarify that a CRS is just a release for certain maintenance performed, and does not necessarily imply that the aircraft is airworthy (ready for flight).
- Option 2: Change the term 'CRS' to a new name 'MRC' (Maintenance Release Certificate), which would make more clear that the term relates to the certification of maintenance and is not a declaration of the airworthiness of an aircraft/component.

A decision was made to select Option 1, due to the following negative impacts associated to Option 2:

- In the short/medium term, there could be additional confusion because of the coexistence of both terms.
  - There would be a need to change the 'EASA Form 1'.
  - There would be an issue with Bilateral Agreements and with the Canadian Form One and the FAA 8130-3.
  - There would be a need to change all existing Technical Log Books and Systems.
- Content and control of job cards.

The subject under discussion is related to what job card system is used (operator's job cards, Part-145 organisation's job cards, or a combination thereof), and which format and information should be included in such job cards.

This issue had already been extensively discussed in 2006 and 2007, when the Agency was envisaging the initiation of the rulemaking task 145.020 related to the worksheet/work card system used by Part-145 maintenance organisations. At that time, the Agency requested Bureau Veritas to conduct a research project on the subject in order to decide whether or not to proceed with the task. Following the Agency's request, Bureau Veritas issued the 'Study on the need of a common worksheet / work card system' and, based on the study's conclusions, the Agency decided not to pursue the task at that time. The study can be found on the Agency's website at: <http://easa.europa.eu/document-library/research-projects/easa2006op25>.

Taking the above into account, the Agency decided not to further address this issue in this NPA and examine it instead in the future where the decision will be made on the initiation or not of a specific rulemaking task/action. This future decision may also be affected by the outcome of the following ongoing rulemaking activities:

- Opinion No 06/2013 on 'Critical maintenance tasks'<sup>8</sup>;
- NPA 2014-11 on 'Functions and responsibilities of B1 and B2 support staff — link with sign-off'<sup>9</sup>.

With regard to the other aspects described above (point (a), (c), (d), (e) and (g)), the decision made was to introduce minimum changes to the IR and focus more on providing more AMC material. The objective was to address the safety issues while providing greater flexibility and minimising any possible negative impact.

As a consequence, the changes to the IR have been limited to the following:

<sup>8</sup> <http://www.easa.europa.eu/document-library/opinions/opinion-062013>

<sup>9</sup> <http://www.easa.europa.eu/document-library/notices-of-proposed-amendment/npa-2014-11>



- Explicitly mention that it is possible for the operator to contract several maintenance organisations (and not just one). Refer to amended M.A.201(h)2, M.A.708(b)7, M.A.708(c) and M.B.701(a)4.
- Explicitly mention that one of the tasks required in order to ensure the airworthiness of the aircraft is the appropriate coordination of all maintenance activities when several organisations are involved. Refer to amended M.A.301, item 3 and M.A.708(b), item 4.
- Clarify the requirements related to the operator's technical log system in order to make sure that the airworthiness status of the aircraft is appropriately defined, without requiring unnecessary documents (maintenance statement), and that this information may not need to be on board the aircraft if appropriate controls are in place. Refer to amended M.A.306.
- Deletion of point 145.A.70(a)16.

#### **4.4. Analysis of impacts**

##### **4.4.1. Safety impact**

The changes proposed to the IR and AMC material are in line with the Safety Recommendation 2010-072 issued by the AAIB UK in its Bulletin 9/2010. This should have a positive impact on safety by improving the coordination between the different organisations involved in the continuing airworthiness management and maintenance of aircraft, especially when complex maintenance and operational arrangements are put in place.

In addition, the clarification that a Certificate of Release to Service (CRS) only certifies a certain maintenance and does not necessarily mean that the aircraft/component is airworthy should reduce the risk of installing components which do not meet all the airworthiness requirements.

##### **4.4.2. Environmental impact**

No environmental impact is anticipated.

##### **4.4.3. Social impact**

The proposed changes do not affect the qualification requirements, authorisation process or privileges of persons and organisations, and they neither favour nor place any particular community or sector at a disadvantage.

On the contrary, the proposed changes will define better the responsibilities of each party, thus improving legal certainty and reducing the possibility of facing unfair liabilities.

##### **4.4.4. Economic impact**

The level of economic impact will depend on the degree of changes the involved organisations (maintenance organisations, CAMOs and competent authorities) will have to make to their current procedures and practices.

It is important to note that the economic impact will be higher for those organisations which, taking advantage of the lack of clarity of certain aspects of the current IRs/AMC/GM, do not have a robust system to ensure the proper coordination of continuing airworthiness management and maintenance activities. It will also be higher for those competent authorities which do not have adequate oversight of the contracting/sub-contracting arrangements developed by CAMOs and maintenance organisations.



Organisations already having a robust system in place are expected to suffer a very limited economic impact. Other Part-145 organisations will be subject to a higher economic impact proportional to the degree of deficiency of their current system.

Nevertheless, in the long run, any negative economic impact should be compensated — if not outweighed — by the savings made from a more robust system and the reduced number of accidents/incidents and of legal disputes due to allocation of unclear responsibilities.

Furthermore, the abolition of non-useful documents, such as the ‘maintenance statement’, the increase of flexibility provided for the development of the operator’s technical log system, and the clarification of the scope of auditing, expected from operators, of the contracted maintenance organisations should result in a positive economic impact.

**Stakeholders are in particular invited to provide comments and data related to the above assessment of economic impacts.**

#### **4.4.5. General Aviation and proportionality issues**

The changes proposed in this NPA should have a very limited impact on General Aviation since most of the affected provisions are only applicable to Commercial Air Transport (CAT) operators and to maintenance organisations maintaining those aircraft. This is the case of the provisions relating to:

- the operators’ technical log system;
- sub-contracting continuing airworthiness management tasks by CAT operators;
- sub-contracting and contracting provisions contained in the formal contracts concluded between a CAT operator and the corresponding Part-145 organisations.

The only provisions which apply to all aircraft and types of operations, including General Aviation, are those related to the coordination of maintenance activities and the associated responsibilities of the owner/operator/CAMO and the persons/organisations performing maintenance.

However, no negative impact is anticipated on the General Aviation community because generally owners, operators, CAMOs, maintenance organisations and independent certifying staff involved in this category of aircraft and operations do not have to deal with complex maintenance arrangements requiring complex coordination. Furthermore, there is no requirement in the IR for the owner/operator/CAMO to conclude formal maintenance contracts for these aircraft.

#### **4.4.6. Impact on ‘better regulation’ and harmonisation**

The proposed changes are expected to have a positive impact on the level playing field between organisations located in different countries, in particular with regard to:

- the possibility for the operator to contract more than one maintenance organisation;
- the options allowed for the contractual arrangements between operators and maintenance organisations;
- the level of oversight of the different competent authorities of those contractual arrangements; and
- the expected content of the technical log system and when it is not necessary for it to be on board.

In addition, the proposed changes are expected to provide better legal certainty, in particular with regard to the allocation of responsibilities in case of an accident/incident.



## 5. References

### 5.1. Affected regulations

Annex I (Part-M) and Annex II (Part-145) to Commission Regulation (EC) No 2042/2003 of 20 November 2003 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks (OJ L 315, 28.11.2003, p. 1)

### 5.2. Affected AMC and GM

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

### 5.3. Reference documents

- Opinion No 06/2010
- AAIB Bulletin 9/2010 & Safety Recommendation 2010-072
- 'Study on the need of a common worksheet / work card system', issued on 10 December 2007 by Bureau Veritas, available on the Agency's website at: <http://easa.europa.eu/document-library/research-projects/easa2006op25>

## 6. Appendices

Not applicable.

