

NOTICE OF PROPOSED AMENDMENT (NPA) No 2007-09

DRAFT OPINION OF THE EUROPEAN AVIATION SAFETY AGENCY,

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

and

**DRAFT DECISION OF THE EXECUTIVE DIRECTOR OF EUROPEAN AVIATION
SAFETY AGENCY,**

amending Annex I (AMC to Part-M), Annex II (AMC to Part-145), Annex III (GM to Part-145) and Annex V (GM to Part-66) of Decision No 2003/19/RM of the Executive Director of the Agency of 28 November 2003 on acceptable means of compliance and guidance material to Commission Regulation (EC) No 2042/2003 of 20 November 2003 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks.

Part-145 single and multiple releases.

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A. EXPLANATORY NOTE

I. General

1. The purpose of this Notice of Proposed Amendment (NPA) is to envisage amending Annex I (Part-M), Annex II (Part-145) and Annex III (Part-66) of 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 tasks¹, and the Decision of the Executive Director of the Agency N° 2003/19/RM of 28 November 2003 on acceptable means of compliance and guidance material to Commission Regulation (EC) No 2042/2003. The scope of this rulemaking activity is outlined in the Terms of Reference 145.012 and is described in more detail below.
2. The Agency is directly involved in the rule-shaping process. It assists the Commission in its executive tasks by preparing draft regulations, and amendments thereof, for the implementation of the Basic Regulation², which are adopted as "Opinions" (Article 14(1)). It also adopts acceptable means of compliance (AMC) and guidance material (GM) for the application of the Basic Regulation and its implementing rules.
3. When developing rules, the Agency is bound to following a structured process as required by article 43(1) of the Basic Regulation. Such process has been adopted by the Agency's Management Board and is referred to as "The Rulemaking Procedure"³.
4. This rulemaking activity is included in the Agency's rulemaking programme for 2007. It implements the rulemaking task 145.012 – 'Single and multiple releases'.
5. The text of this NPA has been developed by a dedicated EASA rulemaking group. It is submitted for consultation of all interested parties in accordance with Article 43 of the Basic Regulation and Articles 5(3) and 6 of the Rulemaking Procedure.

II. Consultation

6. To achieve consultation, the Agency is publishing the draft opinion on its internet site. Comments on this proposal should be provided within 3 months in accordance with Article 6(4) of the EASA rulemaking procedure. Comments on this proposal should be submitted by one of the following methods:

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

¹ OJ L 315, 28.11.2003, p. 1; Regulation as last amended by Commission Regulation (EC) No 376/2007 of 30 March 2007 (OJ L 94, 4.4.2007, p. 18).

² Regulation (EC) No 1592/2002 of the European Parliament and of the Council of 15 July 2002 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency (OJ L 240, 7.9.2002, p.1). Regulation as last amended by Regulation (EC) No 334/2007 (OJ L 88, 29.3.2007, p. 39).

³ 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/7/03, 27.6.2003.

E-mail: In case the use of CRT is prevented by technical problems these should be reported to the [CRT webmaster](mailto:CRT_webmaster@easa.europa.eu) and comments sent by email to NPA@easa.europa.eu.

Correspondence: If you do not have access to internet or e-mail you can send your comment by mail to:
Process Support
Rulemaking Directorate
EASA
Postfach 10 12 53
D-50452 Cologne
Germany

Comments should be received by the Agency before 28 September 2007. If received after this deadline they might not be taken into account.

III. Comment response document

7. All comments received in time will be responded to and incorporated in a comment response document (CRD). This may contain a list of all persons and/or organisations that have provided comments. The CRD will be widely available on the Agency's website.

IV. Content of the draft opinion and draft decision

A) Background information

8. On 20 November 2003 the European Commission adopted Regulation (EC) No 2042/2003 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks. The provisions of the Annex II (Part-145) include provisions for a release to service of aircraft after maintenance.
9. The wording of Part-145, Part-M and their associated AMCs has allowed two systems to coexist in Europe for the release to service of aircraft: single release and multiple releases.

The current system for single release of aircraft is a concept where a final aircraft certificate of release to service (CRS) is issued before flight by appropriate certifying staff following single or multiple maintenance actions, which are appropriately signed-off by authorised personnel. The advantage of this concept is that maintenance actions are certified by a single person who has the role of co-ordinator as he/she has an overall view on the maintenance actions carried out on the aircraft and the possible interaction between them.

This concept, however, does not properly address the cases where several approved maintenance organisations are involved in maintenance between two flights, because it is not clear which organisation is responsible and capable for finally issuing a single CRS of the aircraft. Consequently, in this case, the system becomes similar to the multiple release concept, where each organisation releases its own work.

Furthermore, even if one organisation were capable of issuing the final CRS of the aircraft, in many cases such organisation would not feel comfortable assuming the responsibility for the work performed by the other Part-145 organisations.

On the other hand, the current system for multiple releases of aircraft is a concept where an organisation issues several CRS, each one of them covering a task or group of tasks. This could lead to lack of coordination and misunderstandings, and possibly to safety issues. In addition, it makes more difficult to ensure that all the work ordered by the operator has been properly accomplished or deferred. This situation is further aggravated in the case where several approved maintenance organisations are involved.

10. In addition to the inherent problems associated to each system, the coexistence of these two systems leads to lack of standardisation and to possible additional safety issues. For example, an operator performing maintenance in different countries will be receiving release documentation issued under both systems. This may lead an operator who is used to receive a final CRS under a single release system to think that the aircraft is ready for service when receiving a CRS in a multiple release system, which is not true. Therefore, the Agency proposed to introduce in its Rulemaking programme the Terms of Reference to answer requests raised by industry and national aviation authorities to clarify this issue and harmonise the concept of release of aircraft within EASA Member States. This rulemaking action would be limited to the Part-145 environment because it was felt that the M.A. Subpart F environment requires a much lower coordination since the maintenance requirements are more simple and it is not common practice to have different organisations involved in a maintenance event.
11. The Agency created a Rulemaking task aiming at removing these inconsistencies, and a drafting group, composed of representatives from authorities, associations of aircraft maintenance personnel, representatives of industry and EASA experts was formed. The task of the group was to evaluate the situation, submit proposals and develop guidelines for issuing an opinion to modify EC regulation 2042/2003 and/or a decision to modify AMCs to this Regulation.

B) Envisaged changes

12. A review was performed on what are the different practices in different countries within Europe, which resulted in figures confirming that in several countries the organisations use to release aircraft by means of multiple releases. Several options were proposed by the group, ranging from doing nothing to a complex combination of certifications. The group worked on refining the definition of the options and after an impact assessment on these, decided that the methodology used was not appropriate and the group could not agree on the options proposed. Therefore, the group reached a compromise by combining parts of several options. The majority of the group and the Agency agreed that this gave a reasonable solution to the problem of standardisation, while assuring an equal or higher level of safety.
13. The decision adopted by the group envisaged a new concept of certification of maintenance. This concept consists of multiple certificates for certifying the maintenance actions, followed by a single final certificate of release to service for the aircraft. This should improve and extend the principle of co-ordination to all the maintenance tasks before the issuance of the release to service. Consequently, the group developed three different types of certificates, as follows:
 1. Maintenance release certificates (MRC):
 - Issued by each Part-145 organisation involved in line or base maintenance after it has verified that the maintenance ordered to that organisation has been properly carried out in accordance with the procedures specified in 145.A.70, taking into account the availability and use of the maintenance data specified in 145.A.45,

and that any outstanding defects and non-compliances have been properly recorded and notified to the primary maintenance organisation (PMO), which in turn shall notify the operator.

- This certification does not state that the aircraft is ready for service, and allows for certification of maintenance where maintenance has been carried out (e.g. engine removal) leaving the aircraft in a non-approved configuration.

2. Base maintenance release certificate (BMRC):

- Issued after all MRCs have been issued, all the maintenance ordered by the operator has been completed or properly deferred, all activities have been properly coordinated and there are no non-compliances which are known that hazard seriously the flight safety.
- This certification is only applicable to base maintenance and does not imply that the aircraft is ready for service, because some additional line maintenance tasks may be required before flight.
- The organisation issuing the BMRC, however, is not responsible for the appropriate performance of the work certified by each MRC or for the use of appropriate maintenance personnel or certifying staff during such work. This is the responsibility of the organisation issuing the corresponding MRC.

3. A final certificate of release to service (CRS):

- Issued before flight, after all the required MRCs and BMRCs, as applicable, have been issued, all the maintenance ordered by the operator has been completed or properly deferred, all activities have been properly coordinated and there are no non-compliances which are known that hazard seriously the flight safety.
- The organisation issuing the CRS, however, is not responsible for the appropriate performance of the work certified by each MRC and BMRC, or for the use of appropriate maintenance personnel or certifying staff during such work. This is the responsibility of the organisation issuing the corresponding MRC or BMRC.
- The issuance of the CRS implies that the aircraft is considered ready for release to service with respect to the work that has been ordered by the operator. As a consequence, the organisation issuing the CRS is not responsible for work that has not been ordered by the operator and which may be mandatory (an AD issued recently, a hard time item that is expired, etc...). This means that the operator is still the final responsible for the airworthiness of the aircraft and for ensuring that all the continuing airworthiness requirements have been met.

14. In order to support the already mentioned principle of coordination, the group felt that it was necessary to define the organisation responsible for issuing the final CRS of the aircraft in all cases, and for issuing the BMRC when applicable. The new concept of “primary maintenance organisation” (PMO) was therefore proposed and adopted. Changes to Part-145 were submitted by the group and a modification to Part-M was also considered necessary to reflect the obligation for the operator to always nominate a PMO.

15. As the process for certification of maintenance was changed, the privileges of certifying staff required some modifications in Part-66.

16. The proposed changes provide flexibility to allow the following:

1. For base maintenance, the proposed system permits the primary maintenance organisation the development of a single format than can be used as MRC, BMRC and CRS.
2. For line maintenance (regardless of whether there was prior base maintenance or not), the proposed system permits, if desired, the continuation of the current technical log system for those organisations that currently issue a CRS for each single task, with the following differences:
 - Each current CRS box is replaced by an MRC box.
 - Fields are added to include the reference for existing MRCs and/or BMRC issued by other organisations.
 - A new box for the final CRS is added.

Guidance Material has been provided (GM 145.A.50) to show examples of typical Technical Logs and certificates for release of maintenance, as well as typical cases of the practical application of the provisions contained in the proposed text.

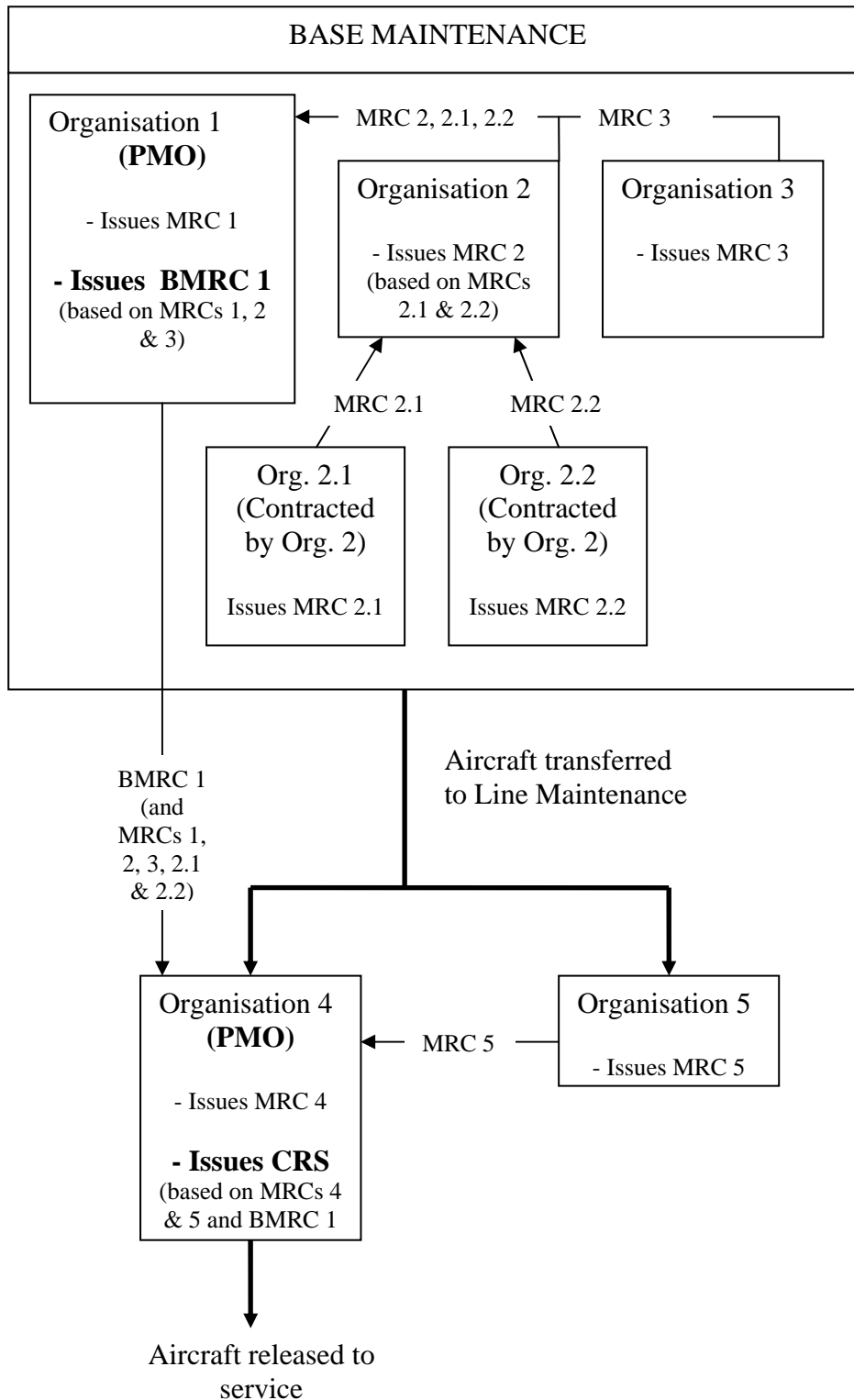
17. The group and the Agency believe that the Terms of Reference have been met and the harmonization of the concept of certification of maintenance has been achieved.
18. A summary of the proposed concept and responsibilities can be found in the following page and in the Guidance Material (GM 145.A.50):

MRC: Maintenance Release Certificate

BMRC: Base Maintenance Release Certificate

CRS: Certificate of Release to Service

PMO: Primary Maintenance Organisation



NOTE: All the organisations shown in the diagram are Part-145 approved maintenance organisations.

ORGANISATION	DOCUMENTS ISSUED	RESPONSIBILITIES
<p><u>Organisations 2.1, 2.2 and 3</u> (These organisations are working in a Base Maintenance environment and, in this example, they don't have to coordinate work performed by other organisations)</p>	<p>Each one will issue its own MRC.</p>	<p>MRC issued when:</p> <ul style="list-style-type: none"> - The maintenance ordered to that organisation has been properly carried out in accordance with Part-145, and - Outstanding defects and non-compliances have been properly recorded and notified to the primary maintenance organisation (for organisation 3) or to the contracting organisation (for organisations 2.1 and 2.2). <p>MRC issued by:</p> <ul style="list-style-type: none"> - Category C certifying staff, or - Category B1 and/or B2 and/or A certifying staff (depending on the type of tasks) when the work is performed under a line maintenance approval (not valid for a PMO), or - NDT certifying staff for a D1 rated organisation (not valid for a PMO).
<p><u>Organisation 2</u> (This organisation is working in a Base Maintenance environment and, in this example, it has to coordinate two contracted organisations)</p>	<p>Organisation 2 will issue its own MRC (based on the MRCs received from the contracted organisations)</p>	<p>MRC issued when:</p> <ul style="list-style-type: none"> - The maintenance ordered to that organisation has been properly carried out in accordance with Part-145, and - The maintenance performed by the contracted organisations has been properly coordinated, and - Outstanding defects and non-compliances have been properly recorded and notified to the primary maintenance organisation (PMO). <p>MRC issued by:</p> <ul style="list-style-type: none"> - Category C certifying staff, or - Category B1 and/or B2 and/or A certifying staff (depending on the type of tasks) when the work is performed under a line maintenance approval (not valid for a PMO), or - NDT certifying staff for a D1 rated organisation (not valid for a PMO)

ORGANISATION	DOCUMENTS ISSUED	RESPONSIBILITIES
<p><u>Organisation 1</u> (This organisation is working in a Base Maintenance environment and, in this example, it has been nominated by the operator as PMO)</p>	<p>Organisation 1 will issue:</p> <ul style="list-style-type: none"> - Its own MRC. - A BMRC (based on its own MRC and on the MRCs issued by organisations 2 and 3) 	<p>MRC issued when:</p> <ul style="list-style-type: none"> - The maintenance ordered to that organisation has been properly carried out in accordance with Part-145, and - Outstanding defects and non-compliances have been properly recorded <p>BMRC issued when:</p> <ul style="list-style-type: none"> - All required MRCs have been issued, and - All maintenance ordered by the operator (to organisations 1, 2 and 3) has been completed or properly deferred, and - All activities were properly coordinated, and - There are no non-compliances which are known that hazard seriously the flight safety. <p>MRC issued by:</p> <ul style="list-style-type: none"> - Category C certifying staff <p>BMRC issued by:</p> <ul style="list-style-type: none"> - Category C certifying staff
<p><u>Organisation 5</u> (This organisation is working in Line Maintenance and, in this example, it does not have to coordinate work performed by other organisations)</p>	<p>Organisation 5 will issue its own MRC (may issue one or several MRCs).</p>	<p>MRC issued when:</p> <ul style="list-style-type: none"> - The maintenance ordered to that organisation has been properly carried out in accordance with Part-145, and - Outstanding defects and non-compliances have been properly recorded and notified to the primary maintenance organisation (which in this example, for line maintenance, it is Organisation 4) <p>MRCs issued by:</p> <ul style="list-style-type: none"> - Category B1 and/or B2 and/or A certifying staff (depending on the type of tasks and on the grouping performed). - NDT certifying staff for a D1 rated organisation.

ORGANISATION	DOCUMENTS ISSUED	RESPONSIBILITIES
<p><u>Organisation 4</u> (This organisation is working in Line Maintenance and, in this example, it has been nominated by the operator as PMO)</p>	<p>Organisation 4 will issue:</p> <ul style="list-style-type: none"> - Its own MRC (may issue one or several MRCs). - A CRS (based on its own MRC and on the MRCs issued by organisation 5 and on the BMRC issued by Organisation 1) 	<p>MRC issued when:</p> <ul style="list-style-type: none"> - The maintenance ordered to that organisation has been properly carried out in accordance with Part-145, and - Outstanding defects and non-compliances have been properly recorded <p>CRS issued when:</p> <ul style="list-style-type: none"> - all required MRCs for line maintenance and the BMRC for base maintenance, as applicable, have been issued, and - All maintenance ordered by the operator has been completed or properly deferred, and - All activities were properly coordinated, and, - There are no non-compliances which are known that hazard seriously the flight safety. <p>MRC issued by:</p> <ul style="list-style-type: none"> - Category B1 and/or B2 and/or A certifying staff (depending on the type of tasks and on the grouping performed). <p>CRS issued by:</p> <ul style="list-style-type: none"> - Category B1 or B2 certifying, or - Category C certifying staff (not valid in this example because there is line maintenance after the base maintenance), or - Category A certifying staff (not valid in this example because there is base maintenance)

V. Regulatory Impact Assessment

Headings	Sub Headings
1. Purpose and Intended Effect	<p><u>a. Issue which the NPA is intended to address:</u></p> <p>According to paragraph 145.A.50(a) of Regulation 2042/2003 Annex II “A certificate of release to service (CRS) shall be issued by appropriately authorised certifying staff on behalf of the organisation when it has been verified that all maintenance ordered has been properly carried out by the organisation in accordance with the procedures specified in 145.A.70, taking into account the availability and use of the maintenance data specified in 145.A.45 and that there are no non-compliances which are known that hazard seriously the flight safety.”</p> <p>Within Europe several different methods of releasing an aircraft have been developed over the years, including single release, multiple releases and variations/combinations of both, caused by some ambiguity of the current regulation. This situation has led to inconsistencies in the application of the CRS.</p> <p>From a safety point of view through the release to service it should be ensured that all tasks have been accomplished. However, the question of responsibility is not clear in the case of coordination of multiple maintenance tasks/organisations and when addressing interface issues of similar maintenance tasks. It was therefore requested by industry and national aviation authorities to clarify this issue so that only one system remains, if possible.</p> <p><u>b. Scale of the issue (quantified if possible):</u></p> <p>Concerned sectors by this rulemaking activity would be all Part-145 maintenance organisations, maintenance staff and commercial air transport operators to a certain extent i.e. as far as technical log issues and nomination of primary maintenance organisations.</p> <p><u>c. Relevant decisions by EASA or other authorities that guide/constrain action:</u></p> <p>None</p> <p><u>d. Brief statement of NPA objectives:</u></p> <p>The objectives of this NPA are to harmonise the application of the CRS within Europe, improve coordination of maintenance tasks and maintain or increase the safety level.</p>
2. Options	<p><u>a. The options identified and evaluated</u></p> <p><i>1. Do nothing</i></p> <p>The different systems in place today, single release, multiple releases and combinations/variations of both, are kept. Ambiguity and application differences remain. A lack of coordination and standardisation could have various negative impacts among them for safety and for ambiguous allocation of responsibility.</p>

Headings	Sub Headings
	<p>2. <i>Single CRS with coordination</i></p> <p>For <u>base maintenance</u>, one final CRS is issued for all maintenance tasks carried out against a work order package. In the case of more than one Part-145 maintenance organisation working on the aircraft outside the scope or contract of the main Part-145 maintenance organisation each contracted organisation issues a CRS and the final CRS covers all work accomplished and the coordination activity. The tasks are signed off and the one final CRS is issued by one category C.</p> <p>For <u>line maintenance</u>, the individual tasks are signed off and one final CRS for several tasks is issued. In the case of more than one Part-145 maintenance organisation working on the aircraft outside the scope or contract of the main Part-145 maintenance organisation each contracted organisation issues a CRS and the final CRS covers all work accomplished and the coordination activity.</p> <p>This system is in place today in some European countries.</p> <p>3. <i>Multiple CRS</i></p> <p>For <u>base maintenance</u> one CRS is issued against each work order or for part of the work order from one or different organisations.</p> <p>For <u>line maintenance</u> one CRS is issued for each task, for each maintenance entry in the tech log.</p> <p>This system is in place in some countries such as in the UK today.</p> <p>4. <i>Multiple maintenance certifications and single aircraft CRS</i></p> <p><u>4a. <i>Multiple maintenance certifications(MRC/SMR) and single aircraft CRS</i></u></p> <p><u>Base maintenance</u></p> <p>This option introduces a new concept of maintenance release and final CRS. A maintenance release is a written statement certifying that “all the work specified except as otherwise specified was carried out in accordance with Part-145”, i.e. in conformity with the maintenance data and maintenance procedures of the Part-145 maintenance organisation. The maintenance release does not necessarily imply that the aircraft is considered ready for release to service. All the work can be either an entry in the aircraft technical log, or into a job card, or on a base maintenance check cover or on an inspection report, or a conformity tag, etc. In base maintenance the maintenance release assumes the form of a Maintenance Release Certificate (MRC).</p> <p>Each task must be signed-off by suitably authorised qualified staff, whereas B1 and B2 support staff shall ensure that all relevant tasks or inspections have been carried out to the required standard before the category C certifying staff issues the MRC.</p> <p>Several work orders received by one maintenance organisation may be certified by one MRC.</p> <p>The final CRS is a written statement that “certifies that all ordered works have been properly coordinated, released or deferred in accordance with Part-145 and in respect of those works the aircraft is considered ready for release to service.” The CRS must be signed by a suitably authorized Part-66 licensed certifying staff of the Part-145 maintenance organisation identified by the operator as “primary maintenance organisation”.</p>

Headings	Sub Headings
	<p><u>Line maintenance</u></p> <p>When the maintenance is performed by staff of the same organisation responsible for the aircraft CRS, the maintenance release assumes the form of a Statement of Maintenance Release (SMR). The SMR can be signed by a suitably licensed staff not necessarily certifying staff.</p> <p>When the maintenance is performed by staff not of the same organisation responsible for the aircraft, the maintenance release assumes the form of a Maintenance Release Certificate (MRC). The MRC shall be signed by suitably authorized Part-66 licensed certifying staff according to 145.A.30(g).</p> <p>Before the aircraft is returned to service the final CRS must be signed by a suitably authorized Part-66 licensed certifying staff of the Part-145 maintenance organisation identified by the operator as “primary maintenance organisation”.</p> <p><u>4b. Multiple maintenance certifications (MRC) and single aircraft CRS</u></p> <p><u>Base maintenance</u></p> <p>This option introduces also a new concept of maintenance release and final CRS. A maintenance release is a written statement that “all the work specified except as otherwise specified was carried out in accordance with Part-145”, i.e. in conformity with the maintenance data and maintenance procedures of the Part-145 maintenance organisation. The maintenance release does not necessarily imply that the aircraft is considered ready for release to service. All the work can be either an entry in the aircraft technical log, or into a job card, or on a base maintenance check cover or on an inspection report, or a conformity tag, etc. In base maintenance the maintenance release assumes the form of a Maintenance Release Certificate (MRC).</p> <p>Each task must be signed-off by suitably authorised qualified staff, where B1 and B2 support staff shall ensure that all relevant tasks or inspections have been carried out to the required standard before certifying staff issues an MRC.</p> <p>The final CRS is a written statement that “certifies that all ordered works have been properly coordinated, released or deferred in accordance with Part-145 and in respect of those works the aircraft is considered ready for release to service.” The CRS must be signed by a suitably authorized Part-66 licensed category C certifying staff of the Part-145 maintenance organisation identified by the operator as “primary maintenance organisation”.</p> <p><u>Line maintenance</u></p> <p>The maintenance release assumes always the form of a Maintenance Release Certificate (MRC) and applies to each entry in the tech log. An entry in a tech log could be one task or a work order incorporating several tasks, i.e. a check. For line maintenance the MRC shall be signed by suitably authorized Part-66 licensed certifying staff according to 145.A.30(g).</p> <p>Before the aircraft is returned to service the final CRS must be signed by a suitably authorized Part-66 licensed certifying staff of the Part-145 maintenance organisation identified by the operator as “primary maintenance organisation”.</p>

Headings	Sub Headings
	<p><u>5. Single maintenance certification (MRC) and single aircraft CRS. Base maintenance and Line maintenance</u></p> <p>Using a new concept of "MRC", this option is based on:</p> <ul style="list-style-type: none"> - one single Maintenance Release Certificate issued by each Part-145 maintenance organisation for all maintenance performed under its responsibility (same certification principles than option n° 2 with "CRS" replaced by "MRC") and - one final Certificate of Release to Service issued by the “primary maintenance organisation” to declare the aircraft ready to service before the next flight. <p>All tasks which must be performed by each Part-145 maintenance organisation (technical complaints log book and/or cabin complaints and/or differed items to be closed and/or line maintenance check and/or AD & all additional tasks ordered to be performed) must be seen as one operator work-order.</p> <p>Each task must be signed off by suitably qualified staff of the Part-145 maintenance organisation.</p> <p>For each operator work-order, one single MRC must be signed by one suitably authorized Part-66 licensed certifying staff of the associated Part-145 maintenance organisation.</p> <p>Before the aircraft is returned to service, and based on one or several MRC from one or several Part-145 maintenance organisations, one final CRS must be signed by suitably authorised Part-66 licensed certifying staff of the maintenance organisation designated by the operator as primary maintenance organisation.</p> <p>The initial RIA (Regulatory Impact Assessment) was performed on the previous options (1 through 5). After this evaluation, the group still could not reach an agreement on which option was the most appropriate, and option 6 was created as a combination of options 2, 4a, 4b and 5. Option 6 was found to be the most reasonable option, which provided a good compromise for the majority of parties. As a consequence, a regulatory impact assessment for option 6 was also performed as it is shown in the following paragraphs.</p> <p><u>6. Multiple maintenance certifications and single aircraft CRS (combination of previous options 2, 4a, 4b and 5)</u></p> <p>This option introduces a new concept of maintenance release and final CRS. A maintenance release certificate is a written statement that “certifies that all the work specified except as otherwise specified was carried out and coordinated in accordance with Part-145”, i.e. in conformity with the maintenance data and maintenance procedures of the Part-145 maintenance organisation. The certificate of maintenance release alone does not imply that the aircraft is considered ready for release to service.</p> <p>The final CRS is a written statement that “Certifies that all the work ordered except as otherwise specified was carried out, as certified by the corresponding maintenance release certificates, and coordinated in accordance with Part-145 and in respect to that work the aircraft is considered ready for release to service”. The CRS must be signed by a suitably authorized Part-66 licensed certifying staff of the Part-145 maintenance organisation identified by the</p>

Headings	Sub Headings
	<p>operator as “primary maintenance organisation”.</p> <p><u>Line maintenance</u></p> <p>1) At least one MRC is issued by each Part-145 maintenance organisation and for each aircraft maintenance license category (i.e. against tasks of the same aircraft maintenance license category (A, B1 or B2) that are performed by authorized qualified staff). MRCs are signed by appropriately authorised certifying staff.</p> <p>2) A final CRS is issued by the primary maintenance organisation and is signed by appropriately authorised certifying staff from that organisation.</p> <p><u>Base maintenance</u></p> <p>1) MRC issued by each Part-145 maintenance organisation. MRC is signed by the appropriately authorised certifying staff</p> <p>For base maintenance each task must be signed-off by appropriately authorised qualified staff, whereas B1 and B2 support staff shall ensure that all relevant tasks or inspections have been carried out to the required standard before the category C certifying staff issues the MRC. A MRC shall be issued by each Part-145 maintenance organisation.</p> <p>2) A final CRS is issued by the primary maintenance organisation and signed by appropriately authorised certifying staff from that organisation.</p> <p><u>b. Equity and fairness issues identified:</u></p> <p><u>1. Do nothing</u> Problems, misunderstandings would remain</p> <p><u>2. Single CRS</u> Same system and understanding of CRS in all Member States (level playing field)</p> <p><u>3. Multiple CRS</u> Same system and understanding of CRS in all Member States (level playing field)</p> <p><u>4a/b. Multiple maintenance certifications and single aircraft CRS</u></p> <p><u>5. Single maintenance certification and single aircraft release</u> Same system and understanding of CRS in all Member States (level playing field)</p> <p><u>6. Multiple maintenance certifications and single aircraft CRS (combination of options 2, 4a, 4b and 5)</u> Best compromise with minimum possible impact on stakeholders.</p> <p><u>c. If possible, the preferred option selected:</u> No preferred option was identified at this stage.</p>

3. Impacts	<p><u>a. Sectors affected</u></p> <p>Concerned sectors by this rulemaking activity would be all Part-145 maintenance organisations, maintenance staff and commercial air transport operators to a certain extent i.e. as far as technical log issues are concerned and nomination of primary maintenance organisations,</p> <p><u>b. All impacts identified</u></p> <p><u>A Safety</u></p> <p><u>1. Do nothing.</u></p> <p>The lack of coordination would remain or could develop further.</p> <p><u>2. Single CRS</u></p> <ul style="list-style-type: none"> – <i>Base maintenance one organisation</i> Depending on the current situation it could increase the level of safety due to a defined coordinating responsibility – <i>Base maintenance more than one organisation</i> It could increase the level of safety due to a defined coordinating responsibility. It clarifies the responsibility between the accomplishment of maintenance work and the aircraft ready for release to service. – <i>Line maintenance one organisation</i> It increases the level of safety due to a defined internal coordination and single final responsibility and common understanding of the CRS. – <i>Line maintenance more than one organisation</i> It increases the level of safety due to a defined internal / external coordination and single final responsibility and common understanding of the CRS <p><u>3. Multiple CRS</u></p> <ul style="list-style-type: none"> – <i>Base maintenance one organisation</i> Depending on the current situation it could decrease the level of safety due to lack of a defined coordinating responsibility – <i>Base maintenance more than one organisation</i> Depending on the current situation it would decrease the level of safety due to lack of a defined coordinating responsibility creating confusion to the crew – <i>Line maintenance one organisation</i> Depending on the current situation it could decrease the level of safety due to lack of a defined coordinating responsibility creating confusion to the involved parties – <i>Line maintenance more than one organisation</i> Depending on the current situation it could decrease the level of safety due to lack of a defined coordinating responsibility creating confusion to involved parties
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4a/b. Multiple maintenance certifications and single aircraft CRS
5. Single maintenance certification and single aircraft CRS

MRC concept provides a more controlled and flexible approach to certify the maintenance.

– *Base maintenance one organisation*

4a. It could increase the level of safety due to coordinating responsibility. It clarifies the responsibility between the accomplishment of certain maintenance work and the aircraft ready for release to service. Conversely, it could make the certification of maintenance more complex.

4b. It could increase the level of safety due to a defined coordinating responsibility. It clarifies the responsibility between the accomplishment of certain maintenance work and the aircraft ready for release to service. Conversely, it could make the certification of maintenance more complex.

5. Depending on the current situation it could increase the level of safety due to coordinating responsibility. It clarifies the responsibility between the accomplishment of certain maintenance work and the aircraft ready for release to service. Conversely, it could make the certification of maintenance more complex.

– *Base maintenance more than one organisations*

4a. It could increase the level of safety due to a defined coordinating responsibility. It clarifies the responsibility between the accomplishment of certain maintenance work and the aircraft ready for release to service. Conversely, it could make the certification of maintenance much more complex.

4b. It could increase the level of safety due to a defined coordinating responsibility. It clarifies the responsibility between the accomplishment of certain maintenance work and the aircraft ready for release to service. Conversely, it could make the certification of maintenance more complex.

5. It could increase the level of safety due to a defined coordinating responsibility. It clarifies the responsibility between the accomplishment of certain maintenance work and the aircraft ready for release to service. Conversely, it could make the certification of maintenance much more complex.

– *Line maintenance one organisation*

4a. This option may have a low impact. Most probably it will make the situation much more complex in the case of a single entry. Depending on the current situation it could increase the level of safety due to a defined coordinating responsibility in case of multiple entries but be much more complex. It clarifies the responsibility between the accomplishment of certain maintenance work and the aircraft ready for release to service.

4b. This option may have a low impact. Most probably it will make the situation more complex in the case of a single entry. Depending on the current situation it could increase the level of safety due to a defined coordinating responsibility in case of multiple entries but be more complex. It clarifies the responsibility between the accomplishment of certain maintenance work and the aircraft ready for release to service.

5. This option may have a low impact. Most probably it will make the situation more complex. It clarifies the responsibility between the accomplishment of maintenance work and the aircraft ready for release to service. The designation of B1/B2 as supporting and certifying staff could lead to a confusion of responsibilities during maintenance certification.

– *Line maintenance more than one organisation*

4a. It could increase the level of safety due to a defined coordinating responsibility. It clarifies the responsibility between the accomplishment of certain maintenance work and the aircraft ready for release to service. Conversely, it could make the certification of maintenance much more complex.

4b. It could increase the level of safety due to a defined coordinating responsibility. It clarifies the responsibility between the accomplishment of certain maintenance work and the aircraft ready for release to service. Conversely, it could make the certification of maintenance more complex.

5. It could increase the level of safety due to a defined coordinating responsibility. It clarifies the responsibility between the accomplishment of certain maintenance work and the aircraft ready for release to service. Conversely, it could make the certification of maintenance much more complex.

6. Multiple maintenance certifications and single aircraft CRS (combination of options 2, 4a, 4b and 5)

MRC concept provides a more controlled and flexible approach to certify the maintenance.

– *Base maintenance one organisation*

Depending on the current situation it could increase the level of safety due to a defined coordinating responsibility. It clarifies the responsibility between the accomplishment of certain maintenance work and the aircraft ready for release to service. Conversely, it could make the certification of maintenance more complex.

– *Base maintenance more than one organisation*

It could significantly increase the level of safety due to a defined coordinating responsibility. It clarifies the responsibility between the accomplishment of certain maintenance work and the aircraft ready for release to service. Conversely, it could make the certification of maintenance more complex

– *Line maintenance one organisation*

Depending on the current situation it could increase the level of safety

due to a defined coordinating responsibility. It clarifies the responsibility between the accomplishment of certain maintenance work and the aircraft ready for release to service. Conversely, it could make the certification of maintenance more complex

– *Line maintenance more than one organisation*

It could significantly increase the level of safety due to a defined coordinating responsibility. It clarifies the responsibility between the accomplishment of certain maintenance work and the aircraft ready for release to service. Conversely, it could make the certification of maintenance more complex.

B Economic

1. Do nothing

No impact

2. Single CRS

This option has only a minor negative impact as it is partially implemented today, especially in Base maintenance. Depending on the system in place today, the impact is negative due to additional costs for organisation changes (personnel training, adaptation of procedures and documentation, MOE), possible impact on operators due to the requirement to change the adaptation of procedures and documentation (Tech Log, procedures, contracts, CAME) and designation of the main 145 organisation.

Depending on the situation today, for line maintenance more certifying staff “B” may be necessary to sign the final CRS but on the other side there could be the benefit to have more mechanics without licenses to sign-off tasks.

3. Multiple CRS

Depending on the system in place today, the impact is negative due to additional cost for organisation changes (personnel training, adaptation of procedures and documentation, MOE), possible impact on operators due to the requirement to change the adaptation of procedures and documentation (Tech Log, procedures, contracts, CAME)

More coordination costs on the side of the operator. Depending on the situation today, as every task or group of tasks needs a CRS, more certifying staff needs to be employed.

4a/b. Multiple maintenance certifications and single aircraft CRS

5. Single maintenance certification and single aircraft CRS

– *Base maintenance one organisation*

4a/4b/5 The impact is negative due to additional cost for organisational changes (personnel training, adaptation of procedures and documentation, MOE), possible impact on operators due to the requirement to change the adaptation of procedures and documentation (Tech Log, procedures, contracts, CAME) and designation of the main 145 organisation.

- *Base maintenance more than one organisation*
4a/4b/5. The impact is negative due to additional cost for organisational changes (personnel training, adaptation of procedures and documentation, MOE), possible impact on operators due to the requirement to change the adaptation of procedures and documentation (Tech Log, procedures, contracts, CAME) and designation of the main 145 organisation. Additional cost for the operator due to the coordination function performed by the MRO.
- *Line maintenance one organisation*
4a. Major change depending on the system today. The impact is negative due to additional cost for organisational changes (personnel training, adaptation of procedures and documentation, MOE), possible impact on operators due to the requirement to change the adaptation of procedures and documentation (Tech Log, procedures, contracts, CAME) and designation of the main 145 organisation. Depending on the system in place today, negative impact due to the need of more licensed staff (single release).

4b Major change depending on the system today. The impact is negative due to additional cost for organisational changes (personnel training, adaptation of procedures and documentation, MOE), possible impact on operators due to the requirement to change the adaptation of procedures and documentation (Tech Log, procedures, contracts, CAME) and designation of the main 145 organisation. Depending on the system in place today, negative impact due to the need of more licensed staff (single release).

5. Major change as it completely changes the philosophy of line maintenance certification. The impact is negative due to additional cost for organisational changes (personnel training, adaptation of procedures and documentation, MOE), possible impact on operators due to the requirement to change the adaptation of procedures and documentation (Tech Log, procedures, contracts, CAME) and designation of the main 145 organisation. Depending on the system in place today, positive impact due to the need of less licensed staff (multiple releases).
- *Line maintenance more than one organisation*
4a Major change depending on the system today. The impact is negative due to additional cost for organisational changes (personnel training, adaptation of procedures and documentation, MOE), possible impact on operators due to the requirement to change the adaptation of procedures and documentation (Tech Log, procedures, contracts, CAME) and designation of the main 145 organisation. Depending on the system in place today, negative impact due to the need of more licensed staff (single release).

4b Major change depending on the system today. The impact is negative due to additional cost for organisational changes (personnel training, adaptation of procedures and documentation, MOE), possible impact on operators due to the requirement to change the adaptation of procedures and documentation (Tech Log, procedures, contracts, CAME) and designation of the main 145 organisation. Depending on the system in place today, negative impact due to the need of more

licensed staff (single release).

5 Major change as it completely changes the philosophy of line maintenance certification. The impact is negative due to additional cost for organisational changes (personnel training, adaptation of procedures and documentation, MOE), possible impact on operators due to the requirement to change the adaptation of procedures and documentation (Tech Log, procedures, contracts, CAME) and designation of the main 145 organisation. Depending on the system in place today, positive impact due to the need of less licensed staff (multiple releases).

6. Multiple maintenance certifications and single aircraft CRS (combination of options 2, 4a, 4b and 5)

MRC concept provides a more controlled and flexible approach to certify the maintenance.

– *Base maintenance one organisation*

Minimum negative impact due to additional cost for organisational changes (personnel training, adaptation of procedures and documentation, MOE), possible impact on operators due to the requirement to change the adaptation of procedures and documentation (Tech Log, procedures, contracts, CAME) and designation of the main 145 organisation.

– *Base maintenance more than one organisation*

Minimum negative impact due to additional cost for organisational changes (personnel training, adaptation of procedures and documentation, MOE), possible impact on operators due to the requirement to change the adaptation of procedures and documentation (Tech Log, procedures, contracts, CAME) and designation of the main 145 organisation.

– *Line maintenance one organisation*

Depending on the system in place today may be a positive or negative impact due to the number of licensed staff needed. Minimum negative impact due to additional cost for organisational changes (personnel training, adaptation of procedures and documentation, MOE) possible impact on operators due to the requirement to change the adaptation of procedures and documentation (Tech Log, procedures, contracts, CAME) and designation of the main 145 organisation.

– *Line maintenance more than one organisation*

Depending on the system in place today, may be a positive or negative impact due to the number of licensed staff needed. Minimum negative impact due to additional cost for organisational changes (personnel training, adaptation of procedures and documentation, MOE) possible impact on operators due to the requirement to change the adaptation of procedures and documentation (Tech Log, procedures, contracts, CAME) and designation of the main 145 organisation.

C Environmental

None

D Social**1. Do nothing**

No impact.

2. Single CRS with coordination

One standardised certification system facilitates movement of persons.

– *Base maintenance*

Base maintenance one organisation: no impact

Base maintenance more than one organisation: depending on the system in place today, may have a rather limited positive impact on the number of employed person (to ensure the coordination)

Positive impact on working environment due to coordination when more than one organisation is involved.

– *Line maintenance one organisation*

Depending on the system in place, could have a negative impact because fewer certifying staff are needed.

– *Line maintenance more than one organisation*

Depending on the system in place, could have a negative impact because fewer certifying staff are needed.

Positive impact on working environment due to coordination when more than one organisation is involved.

3. Multiple CRS

One standardised certification system facilitates movement of persons.

– *Base maintenance one organisation*

No impact

– *Base maintenance more than one organisations* depending on the system in place today, may have a rather limited positive impact on the number of certifying staff.

– *Line maintenance one organisation*

Depending on the system in place today, may have a positive impact because more certifying staff may be needed.

– *Line maintenance more than one organisations*

Depending on the system in place today, may have a positive impact because more certifying staff may be needed.

4a/b Multiple maintenance certifications and single aircraft CRS**5 Single maintenance certification and single aircraft release**

One standardised certification system facilitates movement of persons.

– *Base maintenance*

4a/4b/5 Positive impact on working environment due to coordination when more than one organisation is involved.

– *Line maintenance*

4a/b. Positive impact on working environment due to coordination when more than one organisation is involved. Depending on the system today more job opportunities for licensed staff.

5. Positive impact on working environment due to coordination when more than one organisation is involved. Depending on the system today more (single release) or less (multiple releases) job opportunities for licensed staff.

6. Multiple maintenance certifications and single aircraft CRS (combination of options 2, 4a, 4b and 5)

– *Base maintenance*

Positive impact on working environment due to coordination when more than one organisation is involved.

– *Line maintenance*

Depending on the system in place today may be a positive or negative impact due to the number of licensed staff needed.

Positive impact on working environment due to coordination when more than one organisation is involved.

E Other aviation requirements outside EASA scope, such as security, ATM, airports, etc.

None

F Foreign comparable regulatory requirements

One standardised certification system facilitates the understanding of the certification concept by foreign organisations and authorities.

1. Do nothing

No impact

2. Single CRS with coordination

No impact

3. Multiple CRS

No impact

4a/b Multiple maintenance certifications and single aircraft CRS

5 Single maintenance certification and single aircraft release

There may be an impact on Bilateral Agreements because of the different concept and wording of maintenance certifications and CRS

6. Multiple maintenance certifications and single aircraft CRS (combination of options 2, 4a, 4b and 5)

There may be an impact on Bilateral Agreements because of the different concept and wording of maintenance certifications and CRS

	<p><u>G Equity and fairness</u></p> <p><u>1. Do nothing</u> Problems, misunderstandings would remain</p> <p><u>2. Single CRS</u> Same system and understanding of CRS in all Member States (level playing field)</p> <p><u>3. Multiple CRS</u> Same system and understanding of CRS in all Member States (level playing field)</p> <p><u>4a/b. Multiple maintenance certifications and single aircraft CRS</u></p> <p><u>5. Single maintenance certification and single aircraft release</u> Same system and understanding of CRS in all Member States (level playing field)</p> <p><u>6. Multiple maintenance certifications and single aircraft CRS (combination of options 2, 4a, 4b and 5)</u> Best compromise with minimum possible impact on stakeholders.</p>
<p>4. Summary and Final Assessment</p>	<p><u>a. Comparison of the positive and negative impacts for each option evaluated:</u></p> <p>After the impact assessment was completed on options 1 through 5, a comparison table was started but could not be finished because these options could not be agreed upon by the group. It was unanimously agreed that none of the options was satisfactory. At that point, option 6 was developed from option 2, 4a, 4b and 5 as a combination of different aspects of those options, causing the lowest impact on the stakeholders and also being the most fair implementation. The result of the impact assessment performed on option 6 confirms that it is a good compromise and maintains a high positive impact without inducing significant negative impacts in the social and economic aspects. The Agency agreed with the group that option 6 was the most reasonable option.</p> <p><u>b. A summary of who would be affected by these impacts and issues of equity and fairness:</u></p> <p>Concerned sectors by this rulemaking activity would be all Part-145 maintenance organisations, maintenance staff and commercial air transport operators to a certain extent i.e. as far as technical log issues are concerned and nomination of primary maintenance organisations.</p> <p><u>c. Final assessment and recommendation of a preferred option:</u></p> <p>Option 6, which is a combination of options 2, 4a, 4b and 5, was finally selected.</p>

B. DRAFT OPINION AND DRAFT DECISIONS.

NOTE:

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

1. ~~Text to be deleted is shown with a line through it.~~
2.

New text to be inserted is highlighted with grey shading.
3.
Indicates that remaining text is unchanged in front of or following the reflected amendment.
....

I. DRAFT OPINION (EC) NO 2042/2003

Commission Regulation (EC) No 2042/2003 is hereby amended as follows:

Article 2 “Definitions” is revised as follows:**Definitions**

Within the scope of the basic Regulation, the following definitions shall apply:

- (a) ‘aircraft’ means any machine that can derive support in the atmosphere from the reactions of the air other than reactions of the air against the earth's surface;
- (b) ‘certifying staff’ means personnel responsible for the ~~release of~~ certification of maintenance carried out on an aircraft or a component ~~after maintenance~~;

....

A) PART-M

Commission Regulation (EC) No 2042/2003, Annex I (Part-M) is hereby amended as follows:

Paragraph M.A.306(a)2 is amended as follows:**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:

....

2. the current aircraft certificate of release to service and the associated maintenance release certificates, and;

....

Paragraph M.A.708(b)7 is amended as follows:**M.A.708 Continuing airworthiness management**

....

7. ensure that the aircraft is taken to an appropriately approved maintenance organisation whenever necessary and, in the case of large aircraft and aircraft involved in commercial air transport, nominate a primary maintenance organisation (PMO) which shall have the responsibilities described in 145.A.50. In such a case, during each particular maintenance event the operator shall inform the PMO of any maintenance ordered to any other contractors.

In those cases where the operator has nominated several sequential PMOs during the maintenance process, the operator shall define which one is responsible for the issuance of the certificate of release to service.

.....

Paragraph M.A.801 is amended as follows:**M.A.801 Aircraft certificate of release to service**

- (a) Except for aircraft for which the certification of maintenance is performed released to service by a Part-145 organisation, the certification of maintenance shall consist on a certificate of release to service shall be issued according to this Subpart.

....

B) PART-145

Commission Regulation (EC) No 2042/2003, Annex II (Part-145) is hereby amended as follows:

Paragraph 145.A.30 is amended as follows:**145.A.30 Personnel requirements**

....

(h) Any organisation maintaining aircraft, except where stated otherwise in paragraph (j) shall:

1. in the case of base maintenance of large aircraft, have appropriate aircraft type rated certifying staff qualified as category C in accordance with Part-66 and 145.A.35. In addition the organisation shall have sufficient aircraft type rated staff qualified as category B1 and B2 in accordance with Part-66 and 145.A.35 to support the category C certifying staff.
 - i. B1 and B2 support staff shall ensure that all relevant tasks or inspections have been carried out to the required standard before maintenance is certified by the category C certifying staff. ~~issues the certificate of release to service.~~

....

(i) ~~Component certifying staff shall comply with Part-66.~~ Any organisation holding a B, C or D1 rating shall have appropriate certifying staff, as applicable, qualified as follows:

1. Component certifying staff shall be qualified in accordance with Part-66 and 145.A.35,
2. Non-destructive testing certifying staff shall be qualified in accordance with 145.A.30 (f) and 145.A.35.

(j)

Paragraph 145.A.35 is amended as follows:**145.A.35 Certifying staff and category B1 and B2 support staff**

(a) In addition to the appropriate requirements of 145.A.30(g) and (h), the organisation shall ensure that certifying staff and category B1 and B2 support staff have an adequate understanding of the relevant aircraft and/or components to be maintained together with the associated organisation procedures. In the case of certifying staff, this must be accomplished before the issue or re-issue of the certification authorisation.

‘Category B1 and B2 support staff’ means those category B1 and B2 staff in the base maintenance environment who do not hold necessarily certification privileges. ‘Relevant aircraft and/or components’, means those aircraft or components specified in the particular certification authorisation. ‘Certification authorisation’ means the authorisation issued to certifying staff by the organisation and which specifies the fact that they may certify

~~maintenance sign certificates of release to service~~ within the limitations stated in such authorisation on behalf of the approved organisation.

....

Paragraph 145.A.50 is amended as follows:

145.A.50 Certification of maintenance

~~(a) A certificate of release to service shall be issued by appropriately authorised certifying staff on behalf of the organisation when it has been verified that all maintenance ordered has been properly carried out by the organisation in accordance with the procedures specified in 145.A.70, taking into account the availability and use of the maintenance data specified in 145.A.45 and that there are no non-compliances which are known that hazard seriously the flight safety.~~

(a) For the purpose of this Part, the certification of maintenance on aircraft shall include:

- Maintenance release certificates (MRCs), and
- Base maintenance release certificate (BMRC), if applicable, and
- Certificate of release to service (CRS)

The issuance of MRCs and of a BMRC, if applicable, does not imply that the aircraft is ready for service, being necessary the issuance of a CRS before flight.

~~(b) A certificate of release to service shall be issued before flight at the completion of any maintenance.~~

(b) The certification of maintenance on aircraft shall be carried out as follows:

(1) An MRC shall be issued by appropriately authorised certifying staff on behalf of the Part-145 organisation when it has been verified that the maintenance ordered to that organisation has been properly carried out in accordance with the procedures specified in 145.A.70, taking into account the availability and use of the maintenance data specified in 145.A.45, and that any outstanding defects and non-compliances have been properly recorded and notified to the primary maintenance organisation (PMO), which in turn shall notify the operator in accordance with paragraph 145.A.50(c).

i. For base maintenance, an MRC shall be issued by each Part-145 organisation using appropriately authorised category C certifying staff, or equivalent as per 145.A.30(j).

Organisations other than the PMO may issue the MRC using the following appropriately authorised certifying staff:

- Category B1 and/or B2 and/or A, or equivalent as per 145.A.30(j), when the maintenance tasks are performed under a line maintenance approval, or
- 145.A.30(i)(2) certifying staff in the case of a D1 rated organisation.

ii. For line maintenance, at least one MRC shall be issued by each Part-145 organisation using the following appropriately authorised certifying staff:

- Category B1 and/or B2 and/or A, or equivalent as per 145.A.30(j), or

- 145.A.30(i)(2) certifying staff in the case of a D1 rated organisation.

Each MRC must clearly identify the tasks or group of tasks it refers to.

(2) A BMRC shall be issued by appropriately authorised category C certifying staff, or equivalent as per 145.A.30(j), on behalf of the PMO, when:

- i. all required MRCs have been issued, and
- ii. all maintenance ordered by the operator has been completed or properly deferred, and
- iii. it has been ensured that all activities were properly coordinated, and
- iv. it has been ensured that there are no non-compliances which are known that hazard seriously the flight safety.

(3) A CRS shall be issued by appropriately authorised certifying staff on behalf of the PMO when:

- i. all required MRCs for line maintenance and the BMRC for base maintenance, as applicable, have been issued, and
- ii. all maintenance ordered by the operator has been completed or properly deferred, and
- iii. it has been ensured that all activities were properly coordinated, and
- iv. it has been ensured that there are no non-compliances which are known that hazard seriously the flight safety.

The CRS shall be issued by appropriately authorised certifying staff of the following categories:

- i. Category B1 or B2, or equivalent as per 145.A.30(j), or
- ii. Category C, or equivalent as per 145.A.30(j), when no line maintenance has been performed after the issuance of the BMRC, or
- iii. Category A, when no base maintenance has been performed and all the line maintenance has been performed by this person.

(c)

(d)

(e) By derogation to paragraph ~~(a)~~ (b), when an organisation is unable to complete all maintenance ordered, ~~it may issue a~~ the certificate of release to service ~~may be issued~~ within the approved aircraft limitations. The ~~PMO organisation~~ shall enter such fact in the aircraft certificate of release to service before the issue of such certificate.

(f) By derogation to paragraph ~~(a)~~ (d) and 145.A.42, when an aircraft is grounded at a location other than the main line station or main maintenance base due to the non-availability of a component with the appropriate release certificate, it is permissible to temporarily fit a component without the appropriate release certificate for a maximum of 30 flight hours or until the aircraft first returns to the main line station or main maintenance base, whichever is the sooner, subject to the aircraft operator agreement and said component having a suitable release certificate but otherwise in compliance with all applicable maintenance and operational requirements. Such components shall be removed by the above prescribed time limit unless an

appropriate release certificate has been obtained in the meantime under paragraph (a) (d) and 145.A.42.

Paragraph 145.A.55 is amended as follows:

145.A.55 Maintenance records

- (a) The organisation shall record all details of maintenance work carried out. As a minimum, the organisation shall retain records necessary to prove that all requirements have been met for the certification of maintenance ~~issuance of the certificate of release to service~~, including subcontractor's release documents.
 - (b) The organisation shall provide the operator with a copy of any specific approved repair/modification data used by the contracted organisation for repairs/modifications carried out.
 - (c) When working under a contract for another Part-145 organisation, the contracted organisation will provide the contracting organisation with a copy of any maintenance release certificate (MRC) issued by the contracted organisation.
 - (d) When working under the lead of a primary maintenance organisation (PMO), the organisation will provide the PMO with a copy of the following records:
 - 1. any MRC issued by the organisation, and
 - 2. any document received under paragraph c) from contracted organisations.
 - (e) ~~(b) The PMO organisation shall provide a copy of each certificate of release to service to the aircraft operator, together with a copy of any specific approved repair/modification data used for repairs/modifications carried out~~ the aircraft operator with a copy of the following records:
 - 1. any MRC, BMRC and CRS issued by the organisation, and,
 - 2. any document received under paragraphs c) and d) from contracted organisations and from those organisations being coordinated.
 - (f) ~~(e) The organisation shall retain a copy of all detailed maintenance records and any associated maintenance data for two years from the date the aircraft or component to which the work relates~~ the certification of maintenance was released from issued by the organisation.
-

Paragraph 145.A.65(b) is amended as follows:

145.A.65 Safety and quality policy, maintenance procedures and quality system

....

- (b) The organisation shall establish procedures agreed by the competent authority taking into account human factors and human performance to ensure good maintenance practices and compliance with this Part which shall include a clear work order or contract such that aircraft and components maintenance may be certified released to service in accordance with 145.A.50.
-

Paragraph 145.A.70(a)13 is amended as follows:**145.A.70(a) Maintenance organisation exposition**

....

13. a list of commercial operators, where applicable, to which the organisation provides an aircraft maintenance service as a nominated primary maintenance organisation;

....

Paragraph 145.A.75(e) is amended as follows:**145.A.75 Privileges of the organisation**

In accordance with the exposition, the organisation shall be entitled to carry out the following tasks:

....

- (e) Issue certificates in accordance with 145.A.50, within the limitations of its approval ~~Issue certificates of release to service~~ in respect of completion of maintenance. ~~in accordance with 145.A.50.~~

The EASA Form 3 shown in Appendix III is amended as follows:**Appendix III to Part-145**

The sentence just below the “Company Name” is changed to read:

“as a Part-145 maintenance organisation approved to maintain the products listed in the attached approval schedule and issue the related ~~certificates of release to service~~ certification of maintenance using the above reference”.

C) PART-66:

Commission Regulation (EC) No 2042/2003, Annex III (Part-66) is hereby amended as follows:

Paragraph 66.A.20 is amended as follows:**66.A.20 Privileges**

(a) Subject to compliance with paragraph (b), the following privileges shall apply:

1. A category A aircraft maintenance licence permits the holder to issue maintenance release certificates in Part-145 organisations and certificates of release to service following minor scheduled line maintenance and simple defect rectification within the limits of tasks specifically endorsed on the authorisation. The certification privileges shall be restricted to work that the licence holder has personally performed in a Part-145 organisation.
2. A category B1 aircraft maintenance licence shall permit the holder to issue maintenance release certificates in Part-145 organisations and certificates of release to service following maintenance, including aircraft structure, powerplant and mechanical and electrical systems. Replacement of avionic line replaceable units, requiring simple tests to prove their serviceability, shall also be included in the privileges. Category B1 shall automatically include the appropriate A subcategory.
3. A category B2 aircraft maintenance licence shall permit the holder to issue maintenance release certificates in Part-145 organisations and certificates of release to service following maintenance on avionic and electrical systems.
4. A category C aircraft maintenance licence shall permit the holder to issue maintenance release certificates, base maintenance release certificates and certificates of release to service following base maintenance on aircraft in Part-145 organisations. ~~The privileges apply to the aircraft in its entirety in a Part-145 organisation.~~

(b) The holder of an aircraft maintenance licence may not exercise certification privileges unless:

1. in compliance with the applicable requirements of Part-M and/or Part-145.
2. in the preceding two-year period he/she has, either had six months of maintenance experience in accordance with the privileges granted by the aircraft maintenance licence or, met the provision for the issue of the appropriate privileges.
3. he/she is able to read, write and communicate to an understandable level in the language(s) in which the technical documentation and procedures necessary to support the certification of maintenance ~~issue of the certificate of release to service~~ are written.

Paragraph 66.B.500 is amended as follows:**66.B.500 Revocation, suspension or limitation of the aircraft maintenance licence**

The competent authority shall suspend, limit or revoke the aircraft maintenance licence where it has identified a safety issue or if it has clear evidence that the person has carried out or been involved in one or more of the following activities:

....

6. issuing certification of maintenance ~~a certificate of release to service~~ knowing that the maintenance specified on such certificate ~~the certificate of release to service~~ has not been carried out or without verifying that such maintenance has been carried out.
7. carrying out maintenance or issuing certification of maintenance ~~a certificate of release to service~~ when adversely affected by alcohol or drugs.
8. issuing certification of maintenance ~~a certificate of release to service~~ while not in compliance with this Part

The EASA Form 26 shown in Appendix V is amended as follows:**Appendix V to Part-M**

The second paragraph of the “Conditions” shown on the second page of the Part-66 licence is changed to read:

“Endorsement of any (sub)categories on the page(s) entitled Part-66 (SUB)CATEGORIES **only**, does **not** permit the holder to issue certification of maintenance ~~a certificate of release to service~~ for an aircraft”

II. DRAFT DECISION AMC TO PART-M

Decision N° 2003/19/RM Annex I (AMC to Part-M) is hereby amended as follows:

AMC M.A.306(a) is amended as follows:

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

....

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 certification of maintenance for the complete aircraft including maintenance release certificates, base maintenance release certificate if applicable, and certificate of release to service as required by 145.A.50 ~~the current certificate of release to service (CRS), for the complete aircraft, issued normally at the end of~~ during and at the completion of the last maintenance check.

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

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

....

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 the appropriate certification of maintenance as required by 145.A.50 ~~a CRS~~ following rectification of a defect or any deferred defect or maintenance check carried out. Such a ~~certification~~ 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.

....

Section 4 should contain details....

....

iv. details of the ~~eventual~~ rectification carried out and its ~~CRS~~ certification of maintenance as required by 145.A.50 or a clear cross-reference back to the document that contains details of the ~~eventual~~ rectification.

....

Appendix V to AMC M.A.704 is amended as follows:**Appendix V to AMC M.A.704 Continuing airworthiness management organisation exposition**

....

PART 3 CONTRACTED MAINTENANCE**3.1 Maintenance contractor selection procedure**

(This paragraph should explain how a maintenance contractor is selected by the continuing airworthiness management organisation. Selection should not be limited to the verification that the contractor is appropriately approved for the type of aircraft, but also that the contractor has the industrial capacity to undertake the required maintenance. This selection procedure should preferably include a contract review process in order to insure that:

- the contract is comprehensive and that no gap or unclear area remains,*
- every one involved in the contract [both at the continuing airworthiness management organisation and at the maintenance contractor] agrees with the terms of the contract and fully understand his responsibility.*
- that functional responsibilities of all parties are clearly identified.*
- the appropriate primary maintenance organisation has been nominated, if applicable.*
- is signed by the owner/lessee of the aircraft in the case of non-commercial air transport.*

In the case of non commercial air transport, this activity should be carried out in agreement with the owner.)

....

Insert a new AMC M.A.708(b) Continuing airworthiness management:**AMC M.A.708 (b) Continuing airworthiness management**

The nominated primary maintenance organisation (PMO) should be:

- (1) **in the case of base maintenance**, the organisation performing the majority of maintenance.

The sentence “performing the majority of maintenance” may be linked to the number of tasks or to the man-hour content or to the number of systems affected by the maintenance event. The intent is that this organisation should have the broadest view and control of the whole maintenance event.

- (2) **in the case of line maintenance**, the organisation that will be responsible for issuing the certificate of release to service.

The PMO should be nominated as such in the applicable maintenance contract or work order, regardless of whether it is a long term agreement or a single maintenance event. It is essential to clearly identify in all cases which is the PMO.

This is also applicable in the case where a single maintenance organisation is foreseen to work on the aircraft between two flights. The reason is that for unforeseen reasons there may be a need to contract another or several organisations, and at that point appropriate coordination would be required.

The operator may nominate a single organisation as PMO for both line and base maintenance.

The nominated PMO should not be changed during the performance of a maintenance check.

In the case where there are several maintenance events between two flights (i.e, base maintenance activities plus some line maintenance activities afterwards), there is the possibility for nominating several sequential PMOs. In this case, the operator should clearly indicate in each maintenance contract/order the exact maintenance event and location for which each organisation has been nominated as PMO and include the appropriate provisions for the transfer of the aircraft between organisations. In any case, the operator should determine which PMO will be responsible for issuing the certificate of release to service.

It may happen that the PMO that was intended to issue the certificate of release to service is not able to issue it because of unexpected work to be performed later on. In this case, the operator may designate a new PMO that will issue the certificate of release to service. Nevertheless, the new PMO should receive from the operator all the necessary information regarding the previous maintenance.

III. DRAFT DECISION AMC TO PART-145

Decision N° 2003/19/RM Annex II (AMC to Part-145) is hereby amended as follows:

AMC 145.A.30(f) is amended as follows:

AMC 145.A.30(f) Personnel requirements

....

2. Appropriately qualified means to Level 1, 2 or 3 as defined by the European Standard 4179:2000 ~~(EN 4179)~~ dependant upon the non-destructive testing function to be carried out.

....

AMC 145.A.30(g) is amended as follows:

AMC 145.A.30 (g) Personnel requirements

....

2. Typical tasks permitted after appropriate task training to be carried out by the category A for the purpose of the category A issuing an aircraft **certification of maintenance** ~~certificate of release to service~~ as specified in 145.A.50 as part of minor scheduled line maintenance or simple defect rectification are contained in the following list:

....

Insert new AMC 145.A.30(i) Personnel requirements:

AMC 145.A.30 (i) Personnel requirements

Component certifying staff is only required for B and C rated organisations. When these organisations need to carry out non-destructive testing NDT as part of component maintenance, the NDT should be carried out by personnel qualified in accordance with 145.A.30 (f). These personnel do not need to be certifying staff. The component maintenance, including the NDT, should be released by appropriate component certifying staff.

The need for non-destructive testing certifying staff qualified in accordance with 145.A.30 (f) and 145.A.35 is only required for D1 rated organisations. The approval held by these organisations refers only to particular NDT methods, and is not limited to a specific aircraft or component.

AMC 145.A.50(a) is renumbered to AMC 145.A.50 and revised as follows:

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

1. A component which has been maintained off the aircraft needs the issue of a certificate of release to service for such maintenance and ~~another certificate of release to service~~ **the appropriate certification of maintenance** in regard to being installed properly on the aircraft

when such action occurs. In the case of base maintenance this takes the form of a separate task sign off for the maintenance and installation tasks.

....

AMC 145.A.50(b) is amended as follows:

AMC145.A.50(b) Certification of maintenance

1. The ~~certificate of release to service~~ certification of maintenance should contain the following statements:
 - a) for the maintenance release certificate: "Certifies that the work specified except as otherwise specified was carried out and coordinated in accordance with Part-145";
 - b) for the base maintenance release certificate: "Certifies that all the work ordered except as otherwise specified was carried out, as certified by the corresponding maintenance release certificates, and was coordinated in accordance with Part-145";
 - c) for the certificate of release to service: "Certifies that all the work ordered specified except as otherwise specified was carried out, as certified by the corresponding maintenance release certificates and base maintenance release certificate, and was coordinated in accordance with Part-145 and in respect to that work the aircraft/aircraft component is considered ready for release to service".
2. The ~~certificate of release to service~~ certification of maintenance should relate to the task specified in the manufacturer's or operator's instruction or the aircraft maintenance program which itself may cross-refer to a manufacturer's/operator's instruction in a maintenance manual, service bulletin etc.
3. The date such maintenance was carried out should include when the maintenance took place relative to any life or overhaul limitation in terms of date/flying hours/cycles/landings etc., as appropriate.
4. When extensive maintenance has been carried out, it is acceptable for the ~~certificate of release to service~~ certification of maintenance to summarise the maintenance so long as there is a unique cross-reference to the work-pack containing full details of maintenance carried out. Dimensional information should be retained in the work-pack record.
5. The person issuing the ~~certificate of release to service~~ certification of maintenance should use his normal signature except in the case where a computer maintenance certification ~~release to service~~ system is used. In this latter case the competent authority will need to be satisfied that only the particular person can electronically issue the certification of maintenance ~~release to service~~. One such method of compliance is the use of a magnetic or optical personal card in conjunction with a personal identity number (PIN) known only to the individual which is keyed into the computer. A certification stamp is optional.

Insert new AMC 145.A.50(b)(1) Certification of maintenance:**AMC 145.A.50(b)(1) Certification of maintenance**

1. Maintenance release certificates (MRCs) are issued by all Part-145 approved organisations participating in the maintenance event, except when a Part-145 approved organisation is working under the quality system of another Part-145 approved organisation in accordance with 145.A.75 (b).
2. When a Part-145 approved organisation contracts part of the work to other Part-145 approved organisations, as agreed with the operator, the contracting Part-145 organisation is responsible for coordinating these tasks and receiving the appropriate MRCs from the contracted organisations before it issues the applicable MRC. In this case, the contracted organisation should record and report to the contracting organisation any outstanding defects and non-compliances.
3. An MRC may be issued also when non-compliances are found, for example, as a result of an inspection, as long as they have been properly recorded and notified to the primary maintenance organisation (PMO). This is the typical case of non destructive testing ordered to a D1 rated organisation, where defects are found but can not be rectified by the D1 rated organisation. An MRC may be issued also in the case where the maintenance ordered leaves the aircraft in a non-approved configuration, such as in the case of an engine/component removal.
4. In 145.A.50(b)(1)(i), when during base maintenance an organisation, other than the PMO, issues an MRC under a line maintenance approval, it may be necessary to have the certificate signed by both B1 and B2 certifying staff clearly identifying which tasks are signed by each person. This is the case where the tasks performed do not fall under the privileges of a single license category.
5. In 145.A.50(b)(1)(ii), the requirement “at least one MRC shall be issued by each Part-145 organisation”, may be satisfied by, but not limited to, either of the following:
 - a. MRCs issued against each maintenance entry by the appropriate certifying staff (category A, B1, B2 or NDT certifying staff for D1 organisations);
 - b. MRCs issued against groups of tasks that can be certified by certifying staff of the appropriate category for those tasks. This certification may be issued by a category A certifying staff only when he/she is the person who has performed all the tasks of the group.

Insert new AMC 145.A.50(b)(2) Certification of maintenance:**AMC 145.A.50(b)(2) Certification of maintenance**

1. The base maintenance release certificate (BMRC) should always be issued and it should not be replaced by the certificate of release to service, even when base and line maintenance are performed by the same organisation. This is also applicable when only base maintenance has been scheduled between two flights and no line maintenance tasks are foreseen.

2. When the primary maintenance organisation (PMO) verifies that all required MRCs have been issued, it should verify that these certificates contain all the applicable information, there is reference to all the work ordered to the corresponding Part-145 organisation and the certifying staff issuing the certificate is properly identified. However, the PMO is not responsible for the appropriate performance of the work certified by each MRC or for the use of appropriate maintenance personnel or certifying staff during such work. This is the responsibility of the organisation issuing the corresponding MRC.
3. The sentence “it has ensured that all activities were properly coordinated” includes, but is not limited to:
 - ensuring proper scheduling and communication when different contractors are working in the same area/system,
 - ensuring that only personnel working for the contracted Part-145 organisations, as notified by the operator, perform maintenance on the aircraft, which may be achieved by receiving a list of the personnel that will be working in the aircraft,
 - ensuring that the procedures imposed by the operator are fulfilled,
 - ensuring that there is no conflict between the tasks performed by different Part-145 organisations, and if such conflict arises, ensuring it is properly managed in accordance with the applicable maintenance or operator procedures (for example, ETOPS operator’s procedures).

Insert new AMC 145.A.50(b)(3) Certification of maintenance:

AMC145.A.50(b)(3) Certification of maintenance

1. When the PMO verifies that all required maintenance release certificates for line maintenance and, if applicable, the BMRC have been issued, it should verify that these certificates contain all the applicable information, there is reference to all the work ordered to the corresponding Part-145 organisation and the certifying staff issuing the certificate is properly identified. However, the PMO issuing the CRS is not responsible for the appropriate performance of the work certified by each MRC and BMRC or for the use of appropriate maintenance personnel or certifying staff during such work. This is the responsibility of the organisations issuing the corresponding MRCs and BMRC.
As a consequence, when category B1 or B2 certifying staff issue the CRS, both categories are acceptable regardless of the scope of the tasks being released.
2. The sentence “it has ensured that all activities were properly coordinated” includes, but is not limited to:
 - ensuring proper scheduling and communication when different contractors are working in the same area/system,
 - ensuring that only personnel working for the contracted Part-145 organisations, as notified by the operator, perform maintenance on the aircraft, which may be achieved by receiving a list of the personnel that will be working in the aircraft,
 - ensuring that the procedures imposed by the operator are fulfilled,
 - ensuring that there is no conflict between the tasks performed by different Part-145 organisations, and if such conflict arises, ensuring it is properly managed in accordance

with the applicable maintenance or operator procedures (for example, ETOPS operator's procedures).

3. When an aircraft has been issued a CRS, if there is a need to perform additional maintenance because of unexpected defects or because the aircraft is not flying and additional scheduled line maintenance is due or because the operator decides to perform more maintenance, a new CRS should be issued. This new certificate will supersede the previous CRS, which should be kept in the records.

The organisation issuing the new CRS may need to have information and guidelines from the operator regarding the possible impact of the new activities with the previous activities.

This new CRS should be issued by Category B1 or B2 certifying staff, or equivalent as per 145.A.30(j), except in the case where only minor scheduled line maintenance and simple defect rectification has been performed after the issuance of the previous CRS.

In such a case, category A certifying staff may issue the CRS as long as he/she has performed all the tasks not covered by the previous CRS.

AMC 145.A.50(d) is amended as follows:

AMC145.A.50(d) Certification of maintenance

....

NOTE: ~~Aircraft may not be released using the certificate~~ An EASA Form 1 may not be used for aircraft certification of maintenance as per 145.A.50(a) and (b).

AMC 145.A.50(e) is amended as follows:

AMC 145.A.50(e) Certification of maintenance

1. Being unable to establish full compliance with sub-paragraph Part-145.A.50(a)(b) means that the maintenance required by the aircraft operator could not be completed due either to running out of available aircraft maintenance downtime for the scheduled check or by virtue of the condition of the aircraft requiring additional maintenance downtime.
2. The aircraft operator is responsible for ensuring that all required maintenance has been carried out before flight and therefore 145.A.50(e) requires such operator to be informed in the case where full compliance with 145.A.50(a)(b) cannot be achieved within the operators limitations. If the operator agrees to the deferment of full compliance, then the certificate of release to service may be issued subject to details of the deferment, including the operator's authority, being endorsed on the certificate.

NOTE: Whether or not the aircraft operator does have the authority to defer maintenance is an issue between the aircraft operator and its Member State. In case of doubt concerning such a decision of the operator, the approved maintenance organisation should inform its Member State of such doubt, before issue of the certificate of release to service. This will allow the Member State to investigate the matter with the State of Registry or the State of the operator as appropriate.

3. The procedure should draw attention to the fact that 145.A.50(a)(b) does not normally permit the issue of a certificate of release to service in the case of non-compliance and should state what action the mechanic, supervisor and certifying staff should take to bring the matter to the

attention of the relevant department or person responsible for technical co-ordination with the aircraft operator so that the issue may be discussed and resolved with the aircraft operator. In addition, the appropriate person(s) as specified in 145.A.30(b) should be kept informed in writing of such possible non-compliance situations and this should be included in the procedure.

AMC 145.A.65(b)(3) is amended as follows:

AMC 145.A.65(b)(3) Safety and quality policy, maintenance procedures and quality system

3.

Note: A “sign-off” is a statement by the competent person performing or supervising the work, that the task or group of tasks has been correctly performed. A sign-off relates to one step in the maintenance process and is therefore different to the ~~release to service of the aircraft~~ **certification of maintenance**. “Authorised personnel” means personnel formally authorised by the maintenance organisation approved under Part-145 to sign-off tasks.

“Authorised personnel” are not necessarily “certifying staff” .

AMC 145.A.65(c)(1) is amended as follows:

AMC 145.A.65 (c)(1) Safety and quality policy, maintenance procedures and quality system.

....

3. The independent audit is an objective process of routine sample checks of all aspects of the organisation’s ability to carry out all maintenance to the required standards and includes some product sampling as this is the end result of the maintenance process. It represents an objective overview of the complete maintenance related activities and is intended to complement the 145.A.50(a) requirement for certifying staff to be satisfied that all required maintenance has been properly carried out before issue of the **certification of maintenance** ~~certificate of release to service~~. Independent audits should include a percentage of random audits carried out on a sample basis when maintenance is being carried out. This means some audits during the night for those organisations that work at night.

....

AMC 145.A.70(a) is amended as follows:

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

The following information should be included in the maintenance organisation exposition:

....

PART 2

....

2.16 ~~Release to service procedure~~ **Procedure for certification of maintenance**.

....

PART 4

4.1 ~~Contracted~~ Contracting operators

(For those operators that have designated the organisation as a primary maintenance organisation)

4.2 Operator procedures and paperwork.

4.3 Operator record completion.

AMC 145.A.75(b) is amended as follows:**AMC 145.A.75(b) Privileges of the organisation**

....

3.4 The organisation may find it necessary to include several specialist subcontractors to enable it to be approved to completely certify the ~~release-to-service~~ maintenance of a particular product. Examples could be specialist welding, electro-plating, painting etc.
To authorise the use of such subcontractors, the competent authority will need to be satisfied that the organisation has the necessary expertise and procedures to control such sub-contractors.

....

4.4 The certification of maintenance ~~certificate of release-to-service~~ may be issued either at the sub-contractor or at the organisation facility by staff issued a certification authorisation in accordance with -145.A.30 as appropriate, by the organisation approved under Part-145. Such staff would normally come from the organisation approved under Part-145 but may otherwise be a person from the sub-contractor who meets the approved maintenance organisation certifying staff standard which itself is approved by the competent authority via the maintenance organisation exposition. The ~~maintenance release certificate~~ ~~certificate of release-to-service~~ and the EASA Form 1 will always be issued under the maintenance organisation approval reference.

....

The EASA Form 6 shown on Appendix II to AMC is amended as follows:

In the EASA Form 6, PART 3 “Compliance with 145.A.70 Maintenance organisation exposition”, item 2.16 is amended to read:

2.16 ~~Release-to-service procedure~~ Procedure for certification of maintenance.

IV. **DRAFT DECISION GM TO PART-145**

Decision N° 2003/19/RM Annex III (GM to Part-145) is hereby amended as follows:

GM 145.A.10 is amended as follows:

GM 145.A.10 Scope

....

5. 145.A.30(b): The minimum requirement is for one full time person who meets the Part-66 requirements for certifying staff and holds the position of "accountable manager, maintenance engineer and is also certifying staff". No other person may issue a ~~certificate of release to service~~ certification of maintenance as shown in 145.A.50 and therefore if absent, no maintenance may be released during such absence.

....

6. Recommended operating procedure for a Part-145 approved maintenance organisation based upon up to 10 persons involved in maintenance.

6.1. 145.A.30(b): The normal minimum requirement is for the employment on a full-time basis of two persons who meet the competent authorities requirements for certifying staff, whereby one holds the position of "maintenance engineer" and the other holds the position of "quality audit engineer".

Either person can assume the responsibilities of the accountable manager providing that they can comply in full with the applicable elements of 145.A.30(a), but the "maintenance engineer" should be the certifying person to retain the independence of the "quality audit engineer" to carry out audits. Nothing prevents either engineer from undertaking maintenance tasks providing that the "maintenance engineer" issues the ~~certificate of release to service~~ certification of maintenance.

....

Insert new GM 145.A.50 Certification of maintenance:

GM 145.A.50 Certification of maintenance

For the purpose of this paragraph, the following acronyms apply:

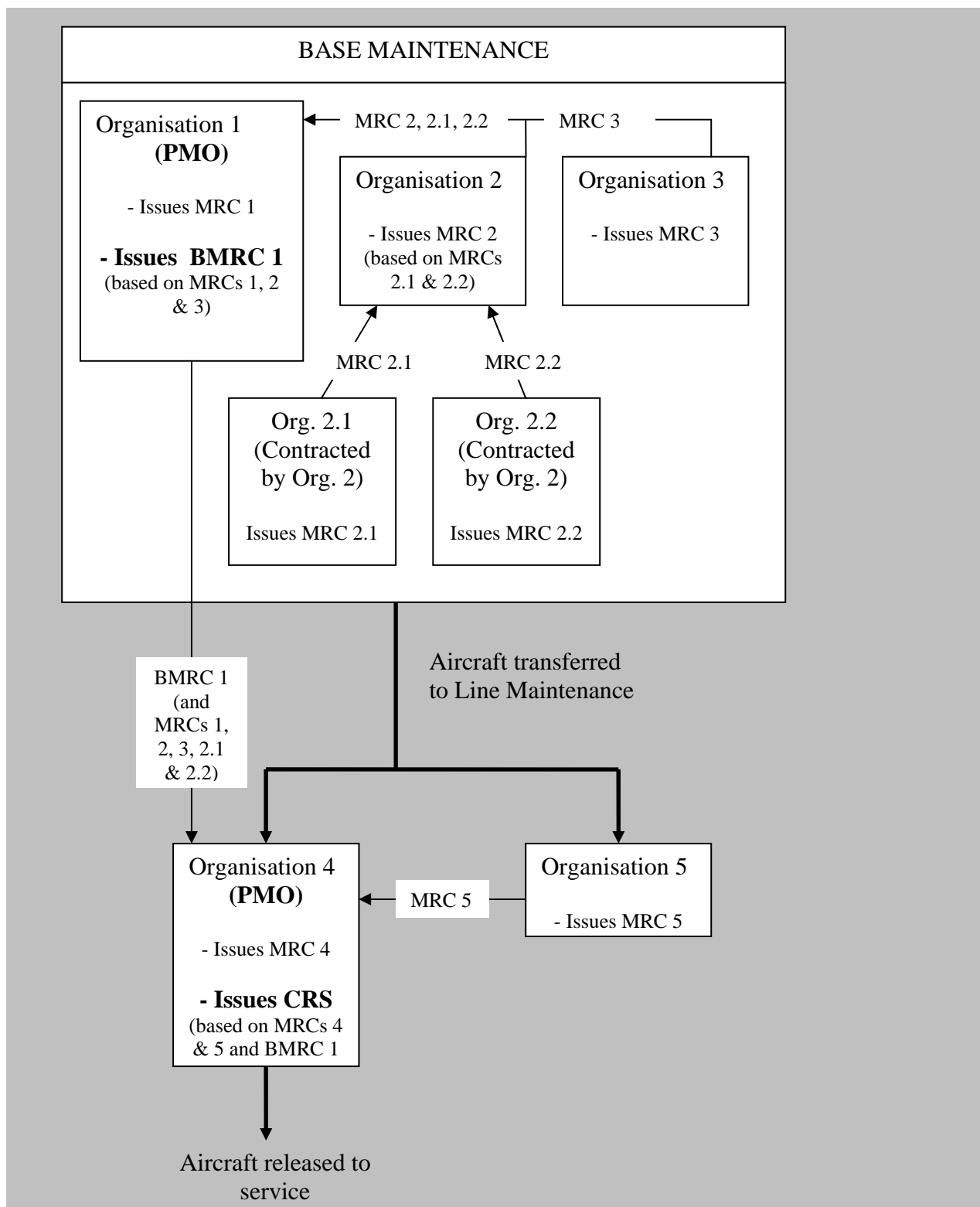
PMO: Primary Maintenance Organisation (refer to M.A.708(b)7)

MRC: Maintenance Release Certificate (refer to 145.A.50(b)(1))

BMRC: Base Maintenance Release Certificate (refer to 145.A.50(b)(2))

CRS: Certificate of Release to Service (145.A.50(b)(4))

The following is an example of practical application of the provisions of M.A.708(b)(7) and 145.A.50(a) and (b) to a typical case covering Base and Line maintenance:



NOTE: All the organisations shown in the diagram are Part-145 approved maintenance organisations.

ORGANISATION	DOCUMENTS ISSUED	RESPONSIBILITIES
<p>Organisations 2.1, 2.2 and 3 (These organisations are working in a Base Maintenance environment and, in this example, they don't have to coordinate work performed by other organisations)</p>	<p>Each one will issue its own MRC.</p>	<p>MRC issued when:</p> <ul style="list-style-type: none"> - The maintenance ordered to that organisation has been properly carried out in accordance with Part-145, and - Outstanding defects and non-compliances have been properly recorded and notified to the primary maintenance organisation (for organisation 3) or to the contracting organisation (for organisations 2.1 and 2.2). <p>MRC issued by:</p> <ul style="list-style-type: none"> - Category C certifying staff, or - Category B1 and/or B2 and/or A certifying staff (depending on the type of tasks) when the work is performed under a line maintenance approval (not valid for a PMO), or - NDT certifying staff for a D1 rated organisation (not valid for a PMO).
<p>Organisation 2 (This organisation is working in a Base Maintenance environment and, in this example, it has to coordinate two contracted organisations)</p>	<p>Organisation 2 will issue its own MRC (based on the MRCs received from the contracted organisations)</p>	<p>MRC issued when:</p> <ul style="list-style-type: none"> - The maintenance ordered to that organisation has been properly carried out in accordance with Part-145, and - The maintenance performed by the contracted organisations has been properly coordinated, and - Outstanding defects and non-compliances have been properly recorded and notified to the primary maintenance organisation (PMO). <p>MRC issued by:</p> <ul style="list-style-type: none"> - Category C certifying staff, or - Category B1 and/or B2 and/or A certifying staff (depending on the type of tasks) when the work is performed under a line maintenance approval (not valid for a PMO), or - NDT certifying staff for a D1 rated organisation (not valid for a PMO)

ORGANISATION	DOCUMENTS ISSUED	RESPONSIBILITIES
<p>Organisation 1 (This organisation is working in a Base Maintenance environment and, in this example, it has been nominated by the operator as PMO)</p>	<p>Organisation 1 will issue:</p> <ul style="list-style-type: none"> - Its own MRC. - A BMRC (based on its own MRC and on the MRCs issued by organisations 2 and 3) 	<p>MRC issued when:</p> <ul style="list-style-type: none"> - The maintenance ordered to that organisation has been properly carried out in accordance with Part-145, and - Outstanding defects and non-compliances have been properly recorded <p>BMRC issued when:</p> <ul style="list-style-type: none"> - All required MRCs have been issued, and - All maintenance ordered by the operator (to organisations 1, 2 and 3) has been completed or properly deferred, and - All activities were properly coordinated, and - There are no non-compliances which are known that hazard seriously the flight safety. <p>MRC issued by:</p> <ul style="list-style-type: none"> - Category C certifying staff <p>BMRC issued by:</p> <ul style="list-style-type: none"> - Category C certifying staff
<p>Organisation 5 (This organisation is working in Line Maintenance and, in this example, it does not have to coordinate work performed by other organisations)</p>	<p>Organisation 5 will issue its own MRC (may issue one or several MRCs).</p>	<p>MRC issued when:</p> <ul style="list-style-type: none"> - The maintenance ordered to that organisation has been properly carried out in accordance with Part-145, and - Outstanding defects and non-compliances have been properly recorded and notified to the primary maintenance organisation (which in this example, for line maintenance, it is Organisation 4) <p>MRCs issued by:</p> <ul style="list-style-type: none"> - Category B1 and/or B2 and/or A certifying staff (depending on the type of tasks and on the grouping performed). - NDT certifying staff for a D1 rated organisation.

ORGANISATION	DOCUMENTS ISSUED	RESPONSIBILITIES
<p>Organisation 4 (This organisation is working in Line Maintenance and, in this example, it has been nominated by the operator as PMO)</p>	<p>Organisation 4 will issue:</p> <ul style="list-style-type: none"> - Its own MRC (may issue one or several MRCs). - A CRS (based on its own MRC and on the MRCs issued by organisation 5 and on the BMRC issued by Organisation 1) 	<p>MRC issued when:</p> <ul style="list-style-type: none"> - The maintenance ordered to that organisation has been properly carried out in accordance with Part-145, and - Outstanding defects and non-compliances have been properly recorded <p>CRS issued when:</p> <ul style="list-style-type: none"> - all required MRCs for line maintenance and the BMRC for base maintenance, as applicable, have been issued, and - All maintenance ordered by the operator has been completed or properly deferred, and - All activities were properly coordinated, and, - There are no non-compliances which are known that hazard seriously the flight safety. <p>MRC issued by:</p> <ul style="list-style-type: none"> - Category B1 and/or B2 and/or A certifying staff (depending on the type of tasks and on the grouping performed). <p>CRS issued by:</p> <ul style="list-style-type: none"> - Category B1 or B2 certifying, or - Category C certifying staff (not valid in this example because there is line maintenance after the base maintenance), or - Category A certifying staff (not valid in this example because there is base maintenance)

The following examples give guidance on the general procedure to be followed according to M.A.708(b)(7) and 145.A.50(a) and (b):

BASE MAINTENANCE ONLY (No Line Maintenance performed)	
STEP 1	Operator contracts base maintenance and selects PMO responsible for coordination activities (refer to M.A.708)
STEP 2	<p>Each Part-145 organisation involved issues an MRC (refer to 145.A.50(b)(1)):</p> <ul style="list-style-type: none"> • Does not imply that the aircraft is ready for service. • May be issued even if the aircraft is left in a non-approved configuration (engine removed, cracks found after inspection...). Outstanding defects and non-compliances must be recorded and reported to PMO. • The Part-145 organisation issuing the MRC is fully responsible for the work performed and the qualification of the maintenance personnel and certifying staff involved. • MRC issued by: <ul style="list-style-type: none"> ○ Category C certifying staff, or ○ Category A, B1 or B2 certifying staff, as appropriate, if tasks performed are under a line maintenance approval (not possible for the PMO), or ○ NDT certifying staff for D1 rated organisations.
STEP 3	<p>The Part-145 organisation nominated as PMO issues a BMRC (refer to 145.A.50(b)(2)):</p> <ul style="list-style-type: none"> • Does not imply that the aircraft is ready for service. • Issued after all MRCs have been issued, all maintenance ordered by the operator has been completed or properly deferred, all activities have been properly coordinated and there are no non-compliances that seriously hazard the flight safety. • The PMO is <u>not</u> responsible for the work performed by the other Part-145 organisations or the qualification of the maintenance personnel and certifying staff involved (already certified by the MRCs). • Issued by category C certifying staff.
STEP 4	<p>The Part-145 organisation nominated as PMO issues a CRS (refer to 145.A.50(b)(3)). In this case, since there is no additional Line Maintenance performed after the Base Maintenance, the PMO may issue the CRS at the same time as the BMRC. The CRS is issued by category B1, B2 or C certifying staff.</p>

LINE MAINTENANCE ONLY (No Base Maintenance performed)	
STEP 1	Operator contracts line maintenance and selects PMO responsible for coordination activities (refer to M.A.708)
STEP 2	<p>Each Part-145 organisation involved issues at least an MRC (refer to 145.A.50(b)(1)):</p> <ul style="list-style-type: none"> • Does not imply that the aircraft is ready for service. • May be issued even if the aircraft is left in a non-approved configuration (engine removed, cracks found after inspection...). Outstanding defects and non-compliances must be recorded and reported to PMO. • The Part-145 organisation issuing the MRC is fully responsible for the work performed and the qualification of the maintenance personnel and certifying staff involved. • MRC issued by: <ul style="list-style-type: none"> ◦ Category A, B1 or B2 certifying staff, as appropriate for the tasks performed. ◦ NDT certifying staff for D1 rated organisations. • When issuing the MRCs, different options exist: <ul style="list-style-type: none"> ◦ One MRC for each task performed. ◦ Issuance of MRCs that include one or several tasks that can be signed by a specific license category. In this case, tasks covered by each MRC must be clearly identified.
STEP 3	<p>The Part-145 organisation nominated as PMO issues a CRS (refer to 145.A.50(b)(3)):</p> <ul style="list-style-type: none"> • The CRS is issued by category B1 or B2 certifying staff, or as covered in 145.A.50(b)(3)(iii) by category A certifying staff. • The PMO is <u>not</u> responsible for the work performed by the other Part-145 organisations or the qualification of the maintenance personnel and certifying staff involved (already certified by the MRCs).

BASE MAINTENANCE + ADDITIONAL LINE MAINTENANCE	
STEP 1 (base maintenance)	Operator contracts base maintenance and selects PMO responsible for coordination activities (refer to M.A.708).
STEP 2 (base maintenance)	<p>Each Part-145 organisation involved in base maintenance issues an MRC (refer to 145.A.50(b)(1)):</p> <ul style="list-style-type: none"> • Does not imply that the aircraft is ready for service. • May be issued even if the aircraft is left in a non-approved configuration (engine removed, cracks found after inspection...). Outstanding defects and non compliances must be recorded and reported to PMO. • The Part-145 organisation issuing the MRC is fully responsible for the work performed and the qualification of the maintenance personnel and certifying staff involved. • MRC issued by: <ul style="list-style-type: none"> ○ Category C certifying staff, or ○ Category A, B1 or B2 certifying staff, as appropriate, if tasks performed are under a line maintenance approval (not possible for the PMO), or ○ NDT certifying staff for D1 rated organisations.
STEP 3 (base maintenance)	<p>The Part-145 organisation nominated as PMO issues a BMRC (refer to 145.A.50(b)(2)):</p> <ul style="list-style-type: none"> • Does not imply that the aircraft is ready for service. • Issued after all MRCs have been issued, all maintenance ordered by the operator has been completed or properly deferred, all activities have been properly coordinated and there are no non-compliances that seriously hazard the flight safety. • The PMO is <u>not</u> responsible for the work performed by the other Part-145 organisations or the qualification of the maintenance personnel and certifying staff involved. (already certified by the MRCs). • Issued by category C certifying staff.
STEP 4 (line maintenance)	<p>ADDITIONAL LINE MAINTENANCE REQUIRED</p> <p>Operator contracts line maintenance and selects PMO responsible for coordination activities (refer to M.A.708)</p>

STEP 5 (line maintenance)	<p>Each Part-145 organisation involved in line maintenance issues at least an MRC (refer to 145.A.50(b)(1)):</p> <ul style="list-style-type: none"> • Does not imply that the aircraft is ready for service. • May be issued even if the aircraft is left in a non-approved configuration (engine removed, cracks found after inspection...). Outstanding defects must be recorded and reported to PMO. • The Part-145 organisation issuing the MRC is fully responsible for the work performed and the qualification of the maintenance personnel and certifying staff involved. • MRC issued by: <ul style="list-style-type: none"> ○ Category A, B1 or B2 certifying staff, as appropriate for the tasks performed. ○ NDT certifying staff for D1 rated organisations. • When issuing the MRCs, different options exist: <ul style="list-style-type: none"> ○ One MRC for each task performed. ○ Issuance of MRCs that include one or several tasks that can be signed by a specific license category. In this case, tasks covered by each MRC must be clearly identified.
STEP 6 (line maintenance)	<p>The Part-145 organisation nominated as PMO for line maintenance issues a CRS (refer to 145.A.50(b)(3)):</p> <ul style="list-style-type: none"> • The CRS is issued by category B1 or B2 certifying staff, or as covered in 145.A.50(b)(4)(iii) by category A certifying staff. • The PMO is <u>not</u> responsible for the work performed by the other Part-145 organisations or the qualification of the maintenance personnel and certifying staff involved (already certified by the MRCs and BMRC).

The following example give guidance on how to develop a format adapted to the current maintenance certification requirements and to be used during **base maintenance** by the Primary Maintenance Organisation (PMO), where the MRC, BMRC and CRS can be issued in the same document.

AIRCRAFT MAINTENANCE CERTIFICATION				
<p>Area reserved for the fields containing information on company name, certificate number, aircraft registration, description of the work performed by the PMO, etc.</p>				
MRC Statement & Signature & Date (covering the information contained above) (Signed by a category C from the PMO)				
Reference to other Maintenance Release Certificates (MRC) (available as separate certificates issued by other Part-145 organisations)				
<table style="width: 100%;"> <tr> <td style="width: 50%;">Certificate No:</td> <td style="width: 50%;">Organisation:</td> </tr> <tr> <td>Certificate No:</td> <td>Organisation:</td> </tr> </table>	Certificate No:	Organisation:	Certificate No:	Organisation:
Certificate No:	Organisation:			
Certificate No:	Organisation:			
BMRC Statement & Signature & Date (Signed by a category C from the PMO)				
CRS Statement & Signature & Date (Signed either by a category B1, B2 or C from the PMO)				

The previous example can also be used for **line and/or base maintenance** by Part-145 organisations which are not the PMO with the following changes:

AIRCRAFT MAINTENANCE CERTIFICATION	
<p>Area reserved for the fields containing information on company name, certificate number, aircraft registration, description of the work performed by the organisation, etc.</p>	
MRC Statement & Signature & Date (covering the information contained above) (Signed by a category appropriate certifying staff from the Part-145 organisation)	
Reference to other Maintenance Release Certificates (MRC) (when the Part-145 organisation contracts part of the work to other Part-145 organisations as agreed with the operator)	
Certificate No:	Organisation:
Certificate No:	Organisation:
BMRC Statement & Signature & Date <div style="text-align: center;">NOT APPLICABLE</div>	
CRS Statement & Signature & Date <div style="text-align: center;">NOT APPLICABLE</div>	

The following examples give guidance on how to develop a technical log adapted to the current maintenance certification requirements, where a CRS can be issued after base maintenance (with an existing BMRC) and possible additional line maintenance. Nevertheless, the requirements described in AMC M.A.306(a) still need to be considered.

EXAMPLE 1: An MRC is issued for each action by appropriate certifying staff.

TECHNICAL LOG BOOK	
DEFECT 1	ACTION 1
	MRC Statement & Signature (This task is signed for example by a category B1)
DEFECT 2	ACTION 2
	MRC Statement & Signature (This task is signed for example by a category B2)
DEFECT 3	ACTION 3
	MRC Statement & Signature (This task is signed for example by a category B1)
DEFECT 4	ACTION 4
	MRC Statement & Signature (This task is signed for example by a category A)
Reference to other Maintenance Release Certificates (MRC) (available as separate certificates) Certificate No: Organisation: Certificate No: Organisation:	
Base Maintenance Release Certificate (BMRC) (available as a separate certificate) Certificate No: Organisation:	
CRS Statement & Signature & Date (Signed either by a category B1 or a category B2)	

EXAMPLE 2: A Sign-off is issued for each action by appropriately authorised sign-off personnel.

TECHNICAL LOG BOOK	
DEFECT 1	ACTION 1
	Sign-off signature (This task is signed by authorised sign-off personnel)
DEFECT 2	ACTION 2
	Sign-off signature (This task is signed by authorised sign-off personnel)
DEFECT 3	ACTION 3
	Sign-off signature (This task is signed by authorised sign-off personnel)
DEFECT 4	ACTION 4
	Sign-off signature (This task is signed by authorised sign-off personnel)
MAINTENANCE RELEASE CERTIFICATES (MRC) MRC Statement Signature 1 (a category B1 signs, specifying for example ACTIONS 1, 2 and 4) Signature 2 (a category B2 signs, specifying for example ACTION 3)	
Reference to other Maintenance Release Certificates (MRC) (available as separate certificates) Certificate No: Organisation: Certificate No: Organisation:	
Base Maintenance Release Certificate (BMRC) (available as a separate certificate) Certificate No: Organisation:	
CRS Statement & Signature & Date (Signed either by a category B1 or a category B2)	

V. DRAFT DECISION GM TO PART-66

Decision N° 2003/19/RM Annex V (GM to Part-66) is hereby amended as follows:

GM 66.A.20(a) is amended as follows:**GM 66.A.20(a)Privileges**

....

4. The category C certification authorisation permits certification of scheduled base maintenance by the issue of maintenance release certificates, base maintenance release certificates and a single certificate of release to service, as specified in 145.A.50, for the complete aircraft after the completion of all such maintenance. The basis for this certification is that the maintenance has been carried out by competent mechanics and both category B1 and B2 staff have signed for the maintenance under their respective specialisation. The principal function of the category C certifying staff is to ensure that all required maintenance has been called up and signed off by the category B1 and B2 staff before issue of the corresponding certification of maintenance certificate of release to service. Category C personnel who also hold category B1 or B2 qualifications may perform both roles in base maintenance.