



European Aviation Safety Agency – Rulemaking Directorate
Comment-Response Document 2012-03
Comment-Response Document 2013-01 (C)

Control of suppliers of components and materials used in maintenance

CRD to NPA 2012-03 – RMT.0555 (145.017) and
CRD to NPA 2013-01 (C) – RMT.0251 (MDM.055),
points 145.A.42, 145.A.43, AMC/GM to 145.A.42 & AMC/GM to 145.A.43
10/12/2013

EXECUTIVE SUMMARY

This Comment-Response Document (CRD) contains the comments received on NPA 2012-03 (published on 12 April 2012) and the responses provided thereto by the Agency, as well as the comments received on NPA 2013-01 (C), and in particular on points 145.A.42, 145.A.43, AMC/GM to 145.A.42 and AMC/GM to 145.A.43.

The Agency decided to include the comments received on NPA 2013-01 (C), points 145.A.42, 145.A.43, AMC/GM to 145.A.42 and AMC/GM to 145.A.43, in this CRD because they affect the content of NPA 2012-03.

As a result of all the comments, the Agency proposes amendments to Article 3(2), M.A.501, M.A.504 and 145.A.42 and to the associated AMC/GM. These changes aim at clarifying the provisions on classification, acceptance and installation of components, and segregation of unserviceable and unsalvageable components.

In addition, M.A.502 (d) has also been amended to improve its readability.

The proposed changes are included in Section 7 of this CRD. They are published in a consolidated manner, meaning that IRs are followed by AMC/GM to the readers' convenience.

Applicability		Process map	
Affected regulations and decisions:	Part-M; AMC Part-M; GM Part-M; Part-145; AMC Part-145; GM Part-145	Concept Paper:	No
Affected stakeholders:	Persons and organisations performing maintenance, competent authorities.	Rulemaking group:	
Driver/origin:	Safety	NPA 2012-03	Yes
Reference:	n/a	NPA 2013-01	No
		RIA type:	Light
		Technical consultation during NPA drafting:	No
		Publication date of the NPA:	
		NPA 2012-03	2012/Q2
		NPA 2013-01	2013/Q1
		Duration of NPA consultation:	
		NPA 2012-03	3 months
		NPA 2013-01	4 months
		Review group:	
		NPA 2012-03	Yes
		NPA2013-01	No
		Focussed consultation:	No
		Publication date of the Opinion:	2013/Q4
		Publication date of the Decision:	n/a

Table of contents

1. Procedural information	3
2. Explanatory Note	3
3. Summary of comments on NPA 2012-03 and responses thereto	4
3.1. Regulate suppliers	4
3.2. Suppliers holding Part-145 and/or Part-21 Subpart G approval	4
3.3. Reporting of suspected unapproved parts (SUP)	5
3.4. Eligibility check before installation	5
4. Summary of comments on NPA 2013-01 (C), points 145.A.42 and 145.A.43 and associated AMC/GM	6
4.1. Conflicts with task 145.017	6
4.2. Provisions that allow the installation of components without an EASA Form 1	6
4.3. Unserviceable components	7
4.4. Control and transfer of unserviceable components	7
5. Individual comments (and responses)	7
5.1. CRD table of comments on NPA 2012-03 and responses thereto	8
5.2. Comments on NPA 2013-01 (C) and responses thereto	30
6. Draft changes to the Articles of Commission Regulation (EC) 2042/2003 and introduction of GM to Articles to Commission Regulation 2042/2003	62
7. Draft changes to Part-M & AMC/GM to Part-M and to Part-145 & AMC/GM to Part-145	62
7.1. Changes to Part-M and AMC/GM to Part-M	62
7.1.1 Changes to the table of contents of Part-M	62
7.1.2 The following changes are made to M.A.501 and associated AMC/GM	63
7.1.1 Changes to M.A.502	67
7.1.2 Changes to M.A.504 and its associated AMC/GM	67
7.1.3 Changes to M.A.608	69
7.1.4 Changes to AMC M.A.802	69
7.1.5 Changes to GM to Appendix II to Part-M	69
7.1.1 Changes to Appendix VII to Part-M	70
7.2. Changes to Part-145 and AMC/GM to Part-145	70
7.2.1 Changes to the table of contents of Part-145	70
7.2.2 Changes to 145.A.40 and its associated AMC	70
7.2.3 Changes to 145.A.42 and its associated AMC/GM	71
7.2.4 Changes to GM 145.A.65 (c) (1): Safety and quality policy, maintenance procedures and quality system	81
7.2.5 Changes to Appendix II to AMC 145.B.20 (5): EASA Form 6	82

1. Procedural information

This CRD provides a summary of the comments and responses as well as the full set of individual comments, and responses thereto, received on:

- NPA 2012-03 'Control of suppliers of components and material used in maintenance';
- NPA 2013-01 (C) 'Embodiment of Safety Management System (SMS) requirements into Commission Regulation (EC) No 2042/2003' (Part-145), to points 145.A.42, 145.A.43, AMC/GM to 145.A.42 and AMC/GM to 145.A.43;

Section 7 of this CRD contains a consolidated version of the resulting draft rule and AMC/GM. It is issued as consolidated text to facilitate the reading of the changes.

The Agency has published this CRD in parallel with the Opinion XX/2013.

The Opinion contains proposed changes to European Regulations. The Opinion is addressed to the European Commission, which uses it as technical basis to prepare a legislative proposal.

The Decision containing AMC and GM will be published by the Agency when the related Implementing Rules are adopted by the Commission.

2. Explanatory Note

As part of the rulemaking task RMT.0555 (145.017), the Agency issued NPA 2012-03 which included:

- requirements and guidance material for the acceptance of components by Part-145 organisations;
- changes to the AMC/GM to 145.A.42(b) and M.A.501(b) to clarify the objective of the eligibility check before installation.

NPA 2012-03 was published for consultation on the EASA website (<http://easa.europa.eu/rulemaking/notices-of-proposed-amendment-NPA.php>) on 12 April 2012. By the closing date of 12 July 2012, the European Aviation Safety Agency (the 'Agency') had received 44 comments from 22 national aviation authorities, professional organisations and private companies. After the closing date of the consultation, a Review Group was established to review and address the comments. The main concerns identified from the comments received and the debate held by the Review Group are summarised in Section 3. The comments and the individual responses are to be found in Section 5.

In parallel, as part of the rulemaking task RMT.0251 (MDM.055), the Agency issued NPA 2013-01 (C) for consultation on the EASA website (<http://easa.europa.eu/rulemaking/notices-of-proposed-amendment-NPA.php>) on 21 January 2013. The said NPA proposed amendments to Part-145 to introduce the management system requirements to align with the management system requirements already adopted with Parts ARO/ARA and ORA/ORO.

In addition to that, the NPA included some amendments to Part-145 in response to recurrent standardisation findings. These amendments duplicate the requirements of Part-M which are also applicable to Part-145 organisations (see Explanatory Note of NPA 2013-01 (C), p. 12). The objective of this 'duplication' is to improve legal certainty, as it would ensure that Part-145 exhaustively covers all the technical requirements for maintenance as defined in Regulation (EC) No 2042/2003.

Amongst these amendments proposed in NPA 2013-01 (C), there were amendments to point 145.A.42 and its associated AMC/GM and the introduction of a new point 145.A.43 and associated AMC/GM.

When reviewing the comments submitted via CRT to NPA 2013-01 (C) associated to 145.A.42, AMC/GM 145.A.42, 145.A.43 and AMC/GM 145.A.43, the Agency considered that those comments would better be addressed in the context of this CRD 2012-03.

Therefore, the Agency has decided to incorporate all the comments submitted to NPA 2013-01 (C), points 145.A.42, AMC/GM 145.A.42, 145.A.43 and AMC/GM 145.A.43, in this CRD 2012-03. The main concerns identified from the comments are summarised in Section 4. The comments and the individual responses are to be found in Section 6.

In order to clarify which provisions of Part-M are applicable to Part-145 organisations, the Agency proposes amending Article 3(2) and adding GM to Article 3(2) to identify those provisions. In addition, GM 145.A.65 (c)(2) and Appendix II to AMC 145.B.20 (5) have been amended to list such elements.

3. Summary of comments on NPA 2012-03 and responses thereto

The main concerns identified from the comments received on NPA 2012-03 and the responses provided are summarised below.

3.1. Regulate suppliers

Some comments received on the NPA claim that Option 4 'regulate suppliers' would be the most effective. These comments consider that Option 4 would have a positive impact on industry since it would eliminate the burden put on maintenance organisations to evaluate their suppliers. The approval of suppliers should be performed by the competent authorities (EASA or NAAs), and these approved suppliers would be acceptable to all Part-145 organisations.

The Review Group considers that Option 4 'direct regulation and approval of suppliers' could undermine the working group's efforts to make this proposal scalable to the specific needs of different maintenance organisations, including those organisations which maintain those aircraft types that are not very extensively registered or operated in the EU. In addition, the working group has found that the majority of component suppliers are from the United States. Direct regulation of an industry where a necessary majority is situated outside of the EU would inject costs into the safety oversight mechanism that are unnecessary, in that they do not provide any additional safety benefit beyond that already achieved by the proposed mechanism.

3.2. Suppliers holding Part-145 and/or Part-21 Subpart G approval

Some commentators said that it is not clear whether the quality system requirements of Part-145 and Part-21, Subpart G, include the elements listed in the proposed GM3 145.A.42(b)(1) Supplier evaluation.

To answer those comments the following needs to be taken into account:

- The proposal explains that Part-145 organisations should evaluate their supplier's quality system. In particular, the supplier's quality system should include the elements listed in GM3 145.A.42.

- A Part-145 or Part-21 Subpart G certificate is issued to an organisation when it meets the requirements of Part-145 or Part-21 Subpart G respectively. The privileges of a Part-145/Part-21 Subpart G organisation which are specified in Part-145 and Part-21 respectively do not include the supply of parts to other organisations.
- When a Part-145 organisation or a Part-21 Subpart G organisation (organisation#1) supplies parts to a different Part-145 organisation (organisation#2), then organisation#1 becomes a supplier for organisation#2.
- Organisation#2 should evaluate the quality system of organisation#1. In doing so, organisation#2 would check whether the elements listed in GM3 145.A.42 are included in the quality system of organisation#1.
- The fact that organisation#1 holds an approval (either Part-145 or Part-21 Subpart G, or both), it is not considered enough to show compliance with the criteria of GM3 145.A.42.

GM2 145.A.42 includes a definition of 'supplier of components or parts'. This definition enumerates possible sources of components such as operators, Part-145 organisations, and Part-21 Subpart G organisations, etc.

3.3. Reporting of suspected unapproved parts (SUP)

A comment made by Airbus raised the issue of reporting 'suspected unapproved parts' (SUP). This comment highlights the recommendation of ICAO Airworthiness Manual (Doc 9760) Volume II, Part B, Chapter 9, paragraph 9.6, to create a system to provide widespread warning of the detection of SUP so that operators of similar equipment can be made aware as soon as possible.

The comment stresses the importance of such a reporting and information system to contribute to the mitigation of the risk of using suppliers.

The Review Group agrees with the Airbus comment. Nevertheless, the subject of occurrence reporting by Part-145 organisations is already being dealt with in RMT.0251 (MDM.055) (NPA 2013-01) and therefore this comment will be taken into account in said task.

3.4. Eligibility check before installation

As it was explained in NPA 2012-03, the Agency considered necessary to amend AMC M.A.501(b) and AMC 145.A.42(b) to clarify the intention of the eligibility check required by M.A.501(b) and 145.A.42(b).

The proposed amendment triggered some comments to the NPA and some discussions between the Review Group members which show that the proposed text was not clear enough. Consequently, the Agency has decided to delete M.A.501(b), AMC M.A.501(b), 145.A.42(b) and AMC 145.A.42(b). Instead, M.A.501 and 145.A.42(b)(2) have been reworded to require that components, standard parts and materials shall only be installed when specified in the applicable maintenance data.

In addition, GM2 M.A.501 and GM 145.A.42(b)(2) are added to clarify the check that needs to be performed before installation. This check should ensure that the part number of the component is the one referred to in the maintenance data (i.e. IPC, SB, etc.) provided by the customer.

When the installation is performed outside a maintenance organisation, that is by the persons referred to in M.A.801(b)(2), M.A.801(b)(3), M.A.801(c) or M.A.801 (d), then these persons are responsible to perform this check before installation.

When the installation is performed by a maintenance organisation, then the organisation has to establish procedures to ensure that this check is performed before installation.

The person or organisation which is going to install the component is not responsible for checking that the component meets the approved design data or that complies with ADs. These are responsibilities of the aircraft's owner or the CAMO (if a CAMO is managing the continuing airworthiness of the aircraft).

4. Summary of comments on NPA 2013-01 (C), points 145.A.42 and 145.A.43 and associated AMC/GM

The main concerns identified from the comments received on NPA 2013-01 (C), points 145.A.42 and 145.A.43 and associated AMC/GM, and the responses provided thereto are summarised below.

4.1. Conflicts with task 145.017

Several commentators claimed that the changes made to point 145.A.42 do not take into account the work of the 145.017 Rulemaking Group and the changes proposed in NPA 2012-03 to point 145.A.42.

NPA 2012-03 'Control of suppliers of components and material used in maintenance' was indeed not considered for the drafting of NPA 2013-01 (C). This is due to the fact that at the NPA stage the final outcome and resulting text cannot be anticipated. Therefore, each rulemaking task is processed separately unless the issue being dealt with in a separate NPA has a direct link addressed by the primary one.

The normal procedure is that each NPA follows its own plan and is processed without considering any other pending NPA.

However, in this case the Agency has considered that it would be beneficial to incorporate the comments made on point 145.A.42 and 145.A.43 and its AMC/GM to NPA 2013-01 (C) in the comments made on NPA 2012-03. This will result in a single CRD dealing with all the comments made on the requirements for acceptance, classification and segregation of components both in Part-M and Part-145, and in a single Opinion and Decision consolidating the proposed amendments.

4.2. Provisions that allow the installation of components without an EASA Form 1

Several comments pointed out the fact that the wording of 145.A.42(b), which requires EASA Form 1 for all components other than standard parts and material, conflicts with other paragraphs of Part-21 and Part-145 which allow the installation of components without the EASA Form 1 under certain conditions, such as 21.A.307(c), 145.A.50(d) and 145.A.50(f).

The comment has been accepted and 145.A.42(a)(1) has been reworded as follows to take this into consideration:

'145.A.42(a)

- (1) Components which are in a satisfactory condition, released on an EASA Form 1 or equivalent and marked in accordance with Subpart Q of the Annex (Part-21) to

Regulation (EU) No 748/2012, unless otherwise specified in Annex (Part-21) to Regulation (EU) No 748/2012, or in this Annex II (Part-145).'

The sentence 'unless otherwise specified in Annex (Part-21) to Regulation (EU) No 748/2012 or in this Annex II (Part-145)' covers the cases where Part-21 or Part-145 organisations may allow the installation of a component without the EASA Form 1.

4.3. Unserviceable components

Some commentators claimed that it is not the responsibility of the maintenance organisation to control the status of airworthiness directives, service life limits, etc., and therefore it is not possible for the maintenance organisation to declare a component as unserviceable unless this information is notified to the maintenance organisation by the owner or CAMO.

These comments are in line with the position of the Agency expressed in point 4 of Section 3. The responsibility for determining whether or not a component satisfies the applicable ADs or meets the life limits lies with the owner/CAMO and not with the maintenance organisation. The owner/CAMO has to inform the maintenance organisation that maintenance is required in a particular component to satisfy an applicable AD or to restore service life limits.

These comments are accepted and the text for unserviceable components has been changed as follows:

- M.A.504 has been substantially amended. Points (a) and (b) have been transferred to AMC/GM and the requirements for segregation of unserviceable and unsalvageable components are reworded.
- M.A.504(a) has been transferred to GM M.A.501(a)(2) and GM 145.A.42(a)(2).
- M.A.504(b) has been transferred to AMC M.A.504 and AMC M.A.145.A.42(c).
- M.A.504(c) has been partly transferred to M.A.501(a).
- M.A.504(d) and (e) have been transferred to AMC M.A.504.

4.4. Control and transfer of unserviceable components

Some commentators argued that the provisions of control and transfer of unserviceable components (M.A.504(b) and 145.A.43(b)) may interfere with the rights of the components' owners and that there is no safety reason to allow the transfer of unserviceable components to the owner in the case of aircraft not used in commercial air transport other than large aircraft and not for the rest aircraft. These comments are accepted and the text is deleted both from M.A.504(b) and Part-145.

5. Individual comments (and responses)

In responding to comments, a standard terminology has been applied to attest the Agency's position. This terminology is as follows:

- (a) **Accepted** — The Agency agrees with the comment and any proposed amendment is wholly transferred to the revised text.
- (b) **Partially accepted** — The Agency either agrees partially with the comment, or agrees with it but the proposed amendment is only partially transferred to the revised text.
- (c) **Noted** — The Agency acknowledges the comment but no change to the existing text is considered necessary.

- (d) **Not accepted** — The comment or proposed amendment is not shared by the Agency.

5.1. CRD table of comments on NPA 2012-03 and responses thereto

(General Comments)	-
---------------------------	---

comment 8

comment by: SVFB/SAMA

2012-03 NPA Control of Suppliers of comp. & material used in maintenance v01

SAMA Swiss Aircraft Maintenance Association, a member of ECOGAS

SAMA supports the content of NPA 2012-03 with the following reservations:

The economical effect of the NPA to the aviation community will not so much depend on this well designed NPA, as it clarifies and even simplifies the process, but our reservation emanates on the present ongoing tendency to declare most flying activities as CAT or commercial. Therefore most Small and Medium Enterprises (SME) MRO's must have a Part 145 approval, as for example when being a MRO handling aircraft involved in sightseeing flights or towing operations.

This tendency for commercialising makes most of the eventual alleviations useless for most SME-MRO's and puts all such SME MRO's under the heavy 145 regulation, originally designed for Public Air Transport (CAT) and requires them to implement heavy regulations, manuals, structures and processes neither adapted to size of operations nor to risks potential.

A perfect alignment with the respective FAA AC's would ease application of the regulation for European manufacturers in competing with global competitors.

A 100 % alignment should be a goal.

Said that we can live with the proposed option 2.

Remark to option 4.

In fact the feedbacks received from our constituency would propose option 4,

regulate the supplier,

as this would be the most logical option, (see the HALON issue)

BUT the reporters hesitate to propose so, because their unison opinion is that whatever EASA has regulated in the past has ended up in a complex regulation incurring higher costs for all 5 involved parties.

They do not entirely blame EASA for this, but are of the opinion that this result is partially driven by most if not all NAA's to preserve their territories and their own kingdom: a an effect which we all can see daily on TV on the long lasting but unsuccessful attempt to solve the European Financial Crisis since it broke out.

Therefore the estimated result of **option 4** will be higher costs for:

1. EASA (and the EU)
2. The NAA's
3. The suppliers
4. The MRO's
5. The CUSTOMER, who will reduce or abandon his private or business flying as he cannot cope with the accumulated cost increase by 1 to 3 above.

If in a economical and Industry supportive way, EASA would approve the different supplier organisations, like those referenced in the NPA and many others, **based on**

- the procedures,
- manuals,
- structures and
- processes they already have in place in a **straightforward and simple manner**, the MRO's could rely on this approval and the auditing travel

	<p>industry, travelling behind each other to all possible places on the globe to audit the same supplier for the same reasons applying the same or similar audit forms and coming to the same conclusion would indeed raise safety and cut costs dramatically for the above mentioned 5 parties.</p> <p>The mandatory requirement: that for each parties 1-5 above this process must be measurably cheaper then the present or presently proposed process.</p> <p>The side effect would be job creation in the productive industry instead of creating more overheads on 4 additional layers, a concept which is not working on the long run.</p> <p>We emphasize on behalf of our constituency, that we propose option 4 if and only if EASA is accepting the mandatory requirement.</p> <p>Franz Meier on behalf of SAMA Swiss Aircraft Maintenance Association A Member of ECOGAS</p> <p>120621 v01</p>
response	<p>Not accepted</p> <p>This proposal establishes a requirement to control the acceptance of components. In order to make this requirement scalable to the needs of different maintenance organisations, the proposal includes means of compliance in which evaluation of suppliers is one tool to support control of acceptance of components. Direct regulation of suppliers could undermine the working group's efforts to make this proposal scalable to the specific needs of different maintenance organisations, including smaller organisations. In addition, the working group has found that the majority of component suppliers are from the United States. Direct regulation of an industry where a necessary majority is situated outside of the EU would inject costs into the safety oversight mechanism that are unnecessary, in that they do not provide any additional safety benefit beyond that already achieved by the proposed mechanism.</p>
comment	<p>11 comment by: EASO</p> <p>Background</p> <p>The terms "parts" and "components" are used interchangeably on an apparently random basis. For example "counterfeit components" (Page 8) followed by "counterfeit parts" (Page 9) in the same paragraph.</p> <p>EASA defines "Component" as any engine, propeller, part or appliance. Part does not appear in the definitions. So in EASA part 145 the effect of specific references to "parts" would exclude any component, engine, propeller or appliance.</p> <p>"Appliance" is also excluded from the EASA definitions.</p> <p>The ATA definitions are widely accepted within the EASA area and they do include "appliance" and "part". The ATA definition of "component" is significantly different from the EASA definition.</p> <p>In the context of NPA 2012 – 03 the term "component" needs to be used for the sake of correctness but this runs against terminology which is widely used and accepted within the industry.</p>
response	<p>Accepted</p> <p>Text harmonised in the proposed IR and AMC/GM changes. The term used in the amended text should be 'component'. This term is defined in Article 2(c) of Regulation (EC) No 2042/2003.</p>

comment	19	comment by: <i>Cessna Aircraft Company</i>
	Cessna Aircraft Company has no comment on this NPA at this time.	
response	Noted	
comment	22	comment by: <i>RR ZM</i>
	The NPRM would require RR and JV repair stations in Europe, Brasil and the Far East to review their suppliers of parts and implement suitable inspection and audit regimes. We would expect an increase in requests for audit of the Part21 ASC Parts Centre and RR AMOs.	
response	Noted	
comment	23	comment by: <i>RR ZM</i>
	It would be helpful to clarify the responsibility of the AMO to set inspection and audit levels based on safety risk. Risk is driven up by unfamiliarity with the supplier, type of component and volume and down by newness of parts and OEM sources. We would not expect the wording, the NAA or customers to drive the RR MROs to implement 100% inspection of all new and used parts coming in.	
response	<p>Accepted</p> <p>The proposal requires that the Part-145 organisation establishes procedures for the acceptance of components. These procedures may consist of several processes depending on different factors such as the type of component or supplier, the particularities of the organisation, etc.</p> <p>Point (c) is added to GM3 145.A.42(b)(1) to clarify this.</p>	
comment	24	comment by: <i>RR ZM</i>
	<p>1.</p> <ul style="list-style-type: none"> • 1. There seems to be a typographical error in draft AMC M.A.501 (b) bullet 2 – suggest “the component is compliant with the applicable CDCCL” • 2. Draft AMC 145.A.42 (a) add to item “(2) Supplier evaluation and control including status – Production Organisation, Contracted AMO, Stockholder, etc.” • 3. Add to Draft GM 145.A.42 (a) (2) e. EASA Part-21G and other national production approvals • 4. As an alternative to comments 2 and 3, if the provisions apply solely or mainly to used parts, this should be stated. 	
response	<p>Partially accepted</p> <p>Point 1: Accepted. CDCCL requirements are applicable only to certain large airplanes, meaning Part-145 maintenance environment. Bullet 2 of AMC M.A.501(b) is deleted.</p> <p>Points 2 and 3: Partially accepted. GM2 145.A.42(b)(1) added including a list of examples of suppliers.</p> <p>Point 4: Not accepted. The provisions apply to new and used parts.</p>	

comment	<p>27 comment by: <i>AgustaWestland SpA</i></p> <p>Add in § 145.A.70 MOE the bullet 17 as follows:</p> <p>14. ... 15. ... 16. ... 17. a list of supplier recognised as per 145.A.42(a) or a reference to it</p>
response	<p>Not accepted</p> <p>The Review Group considers that there is no need to have a list of suppliers in the MOE.</p> <p>The MOE should include the procedures established by the organisation to evaluate suppliers and how the result of such evaluation is recorded/ documented.</p>
comment	<p>37 comment by: <i>Luftfahrt-Bundesamt</i></p> <p>The LBA has no comments on NPA 2012-03.</p>
response	<p>Noted</p>
comment	<p>38 comment by: <i>Airbus SAS</i></p> <p>General Comment on NPA2012-03</p> <p>NPA paragraph A.V., sub-paragraph 2.1. states "The NPA is trying to address the risks associated to the supply and acceptance of components and material from external sources, such as the acceptance of unapproved or counterfeit components, the receipt of components that have been inadequately stored or that have suffered damages during handling or shipment. [...] The issue affects Part-145 organizations, component suppliers, operators and national aviation authorities (NAA)".</p> <p>Airbus would like to emphasize that it holds a MOA for maintenance activities before aircraft delivery and an AOC for its air-transport of subassemblies. Further, Airbus installs buyer-furnished equipment in new aircraft that could be as well overhauled or previously used equipment. Insofar, this NPA is also impacting Airbus and may have an impact on other European aircraft manufacturers as well.</p> <p>Airbus concurs with the potential risks identified above and supports EASA when stating that "Action is necessary to retain Agency's leadership in promoting best practices and encourage uniformity". However, to keep the process of component/material acceptance as robust as it is (at least), Airbus would recommend that EASA initiates a holistic review of the current aviation suppliers and maintenance provider area before amending the existing EU regulations.</p> <p>A particular issue is the status of aviation suppliers, distributors and stockists involved in European aviation. Currently, these organizations are not covered under EASA/EU aviation rules.</p> <p>Organizations that are not approved or appropriately acknowledged, or persons who are not in any kind licensed in accordance with aviation regulations, may contribute to a reduction of the high uniform level of civil aviation safety in Europe the establishment of which is requested by the Basic Regulation (EC) No 216/2008.</p> <p>The approval of any aviation organization or licensed aviation personnel, or establishing the legal context for delegated authority is the prerogative of EASA</p>

and/or EU MS national Authorities. Airbus supports this principle should be kept. However, administrative and financial burden for industry to obtain and maintain approvals or licenses need to be balanced by the expected safety benefit. Therefore, Airbus recommends EASA to develop a risk based evaluation approach to identify the need for new approvals, or licensing, or authorization procedures for components/materials suppliers and stockists.

Airbus would appreciate to support EASA in developing this risk based approach, preferably in the context of an industry working group being composed from affected industry sectors.

We would like to recall that EC no.2042/2003 and its annexes part M and 145 are implemented since years and include the basic requirements to ensure that maintenance organization install only approved components and materials, and employ only personnel appropriately knowledgeable and trained.

The European aviation maintenance community has demonstrated a satisfactory safety record. But, wherever appropriate industry standards or national procedures exist which have been proven to be reliable and safe, EU aviation may benefit from making those means EASA acceptable means of compliance for regulations already included in EC2042/2003 and its annexes.

Further, we would like to direct EASA's attention on the interactions and dependencies between TC-holders, operators and MROs, and the Authorities. The TC-holder's instructions for continued airworthiness define which procedures parts, materials and components are eligible for being used in maintenance activities and may identify the criticality on the basis of parts' and components' failure consequences.

To "...address the risks associated to the supply and acceptance of components and material from external sources, such as the acceptance of unapproved or counterfeit components..", an approach to further regulate maintenance via changes to EC no.2042/2003, its annexes Part M and 145, and guidance materials may need to be supplemented by consistent regulatory activities on corresponding issues in other regulations, as it has already been initiated on critical maintenance tasks (NPA2012-04) and the joint EASA/FAA/TCCA rulemaking project on ICAs. This in particular, because in a few years, Airbus expects the EU will have a completed modular system of aviation regulations with common requirements for all (e.g. SMS) and individual parts for specific activities.

response

Noted

The Review Group agrees that the Part-145 organisation may decide to implement procedures for the evaluation of suppliers based on risk evaluation. The proposal does not prescribe a specific process for the evaluation of suppliers.

comment

41

comment by: *Swiss International Airlines / Bruno Pfister*

SWISS International Air Lines accepts the NPA 2012-03 without further comments.

response

Noted

comment

42

comment by: *DSAE DIRNAV*

The amendment proposes to evaluate all suppliers about the incoming goods. Suppliers holding Part 145 approvals or Part 21 F/G will need to be assessed in addition to the Authority review. This will raise questions about the validity and

use of approvals granted by the Authority.

Moreover, the ones hold an AS/EN9120 or ASA-100 or EASO 2012 or FAA AC00-56 agreement.

In addition, very few consumables and materials manufacturers are dedicated to the aeronautic industry. Consequently suppliers hold certificates such as ISO 9000 and deliver their goods with certificate of conformity.

Consequently, DSAE doesn't think that it's necessary to get one text conducting an in depth evaluation of such suppliers.

Therefore DSAE recommend to modify the GM 145.A.42(a) to exclude part 145 organizations, part 21 F/G organizations and original consumables and/or material manufacturers from the GM.

In fact, DSAE proposes that the "GM supplier" in target in the NPA 12-03 may be understood as a "pure" distributor.

So, suppliers certified (EN/AS9120 and listed in the OASIS database, ASA-100, EASO 2012 and FAA AC00-56) or holding a Part 145 or Part 21 F/G certificate with the proper ratings or deemed acceptable by the Authority through an international agreement stay acceptable.

The use of such certified suppliers does not exempt its organisation from its obligations to ensure that supplied components and material are in satisfactory condition and meet the applicable criteria of 145.A.42(e).

response

Not accepted

Part-145 and Part-21 approval certificates grant organisations certain privileges (i.e. to perform maintenance, produce parts) and therefore these organisations are audited against the requirements linked to these privileges.

Part-145 and Part-21 organisations may also supply/sell parts to other Part-145 organisations, and in this case they become suppliers. The majority of the elements of a supplier quality system which are listed in GM3 145.A.42(b)(1) are applicable to any Part-145 organisation. But there are a few elements, such as procedures for adequate packing and shipping, procedures for batch splitting, etc., which are only applicable when the Part-145 organisation is also a supplier.

TITLE PAGE

p. 1

comment

6

comment by: *Adams Aviation*

We believe that this NPA should be adopted as it will improve the safety of aircraft parts bought through the third party aftermarket supply chain, which accounts for a significant percentage of parts supplied. As stated in section 12 of the NPA, this has already happened in the United States as is confirmed by the FAA.

Currently maintenance organisations all have to independently carry out evaluations of their suppliers, normally those suppliers are providing products to a great many different maintenance organisations, this is exceptionally time consuming and costly to the industry as a whole. If this NPA is adopted maintenance organisations will be able to buy parts from suppliers without the need to duplicate previous evaluations, thus saving time and money.

response

Noted

A. Explanatory Note - IV. Content of the draft Opinion/Decision – Background

p. 5-6

Comment 39

comment by: Airbus SAS

This Airbus comment is related to:

Paragraph A.IV. 'Content of the draft Opinion/Decision', sub-paragraph 11.

Comment:

The NPA 2012-03 refers to the ICAO Airworthiness Manual (Doc. 9760), Volume II, and the FAA AC 00-56.

Not all recommendations of the ICAO Doc. 9760, Vol. II, Chapter 9 have been taken into account.

Rationale for the comment:

There is a concern about the efficiency of measures intended for mitigation of the risk of supplying suspected unapproved parts or counterfeit parts.

The NPA 2012-03, paragraph A.IV. 'Content of the draft Opinion/Decision', sub-paragraph 11 refers to the ICAO Airworthiness Manual (Doc 9760) Volume II, Part B, Chapter 9, paragraph 9.7 for the influence that suppliers have over the control of unapproved parts and the importance of "purchasing only from those suppliers having a known satisfactory record".

However, it has not been possible to identify an explicit requirement in European regulations corresponding to the recommendations of paragraph 9.6, and in particular sub-paragraphs 9.6.1 and 9.6.5:

"Systems used by end users to report to Type Certificate holders and regulatory agencies are intended to provide widespread warning of the detection of unapproved parts so that operators of similar equipment can be made aware as soon as possible. In view of the likely random appearance of unapproved parts, access to a reporting system must be easy and available at all reasonable times. It follows that publicity for the reporting system (and the programmes generally) should be widespread."

"A relatively simple database, preferably computer driven, will be required to maintain a record and allow easy processing of reports of suspected unapproved parts. The database should be capable of interrogation such that any common thread within the reports received is readily identified by keyword access. The database itself can be a dedicated system or part of a much larger"

Airbus recommends that there should be a control of access to sensitive data (particularly for critical components).

response Noted.

Part-145 contains requirements for occurrence reporting in 145.A.60(a); this includes reporting on products, parts, appliances and materials of unknown or suspect origin (see AMC 20-8). Currently, maintenance organisations have to report this condition to their competent authority and to the TC holder. Eventually, in some cases this information is also reported to the Agency via IORS and the Agency issues an SIB to inform all affected stakeholders and competent authorities.

This process will improve with the adoption of the amendments proposed in NPA 2013-01 and the introduction of 145.B.13(b) 'Information to the Agency':

(b) The competent authority shall provide the Agency with safety significant information stemming from the occurrence reports it has received pursuant to 145.A.60.

The information related to SUP would fall under the category of significant safety information to be reported to the Agency, this means that all reports affecting SUP notified to the competent authorities will be available to the Agency which in turn will produce an SIB to inform stakeholders and NAAs.

It is considered that this process would address the recommendations of the ICAO Airworthiness Manual (Doc 9760) Volume II, Part B, Chapter 9, paragraph 9.6.

A. Explanatory Note - IV. Content of the draft Opinion/Decision - Proposed amendment

p. 6-8

comment	10	comment by: EASO
	<p>Paragraph 13</p> <p>The word "provisioning" in the final line has specific connotations in respect of aircraft parts. The use of "supply" is recommended.</p>	
response	Accepted	
comment	20	comment by: EUROCOPTER
	<p>§ 18 : Comment concerns the definition of the scope covered by this NPA. The scope should be limited to the distributors only (definition of "suppliers" in § 18). Approved Part 145 organizations, original equipment manufacturers, ... should be excluded (already subjected to several monitorings).</p>	
response	<p>Not accepted</p> <p>Part-145 and Part-21 approval certificates grant organisations certain privileges (i.e. to perform maintenance, produce parts) and therefore these organisations are audited against the requirements linked to these privileges.</p> <p>Part-145 and Part-21 organisations may also supply/sell parts to other Part-145 organisations, in this case they become suppliers. The majority of the elements of a supplier quality system which are listed in GM3 145.A.42(b)(1) are applicable to any Part-145 organisation. But there are a few elements, such as procedures for adequate packing and shipping, procedures for batch splitting, etc., which are only applicable when the Part-145 organisation is also a supplier.</p>	
comment	28	comment by: UK CAA
	<p>Page No: 6 & 16</p> <p>Paragraph No: 19 of the Explanatory Note and point 145.A.42 (a)</p> <p>Comment: The Explanatory Note says: "19. The working group agreed that the proposal should tackle the need to mitigate the risks associated with the use of suppliers of components. As a result the course of action agreed by the working group consisted of, firstly, an amendment to 145.A.42 to add a new paragraph (a) to require organisations to implement procedures to ensure that components and material received from suppliers are in satisfactory condition and meet the applicable requirements." But this is not what the proposed amendment actually states, it says: "(a) The organisation shall establish procedures for the acceptance of</p>	

components and material.”

Justification: This is an inadequate basis for the proposed AMC and GMC. The rule must specify the purpose of the required procedures which is currently only implied.

Proposed Text: “(a) The organisation shall establish procedures for the acceptance of components and material **to ensure that components and material received from suppliers are in satisfactory condition and meet the applicable requirements.**”

response

Accepted

Text amended. The commentator rightly points out that the objective is to establish procedures for the acceptance of serviceable components and material to be used during maintenance.

Part-145 organisations may also receive unserviceable components to be maintained or unsalvageable components to be stored. But the acceptance of these components is not subject to the above requirements.

comment

29

comment by: Boeing

Page 7 of 33

Paragraph: **IV. Content of the draft Opinion/Decision**

- AND -

Page: 17 of 33

Paragraph: **IV. Draft Decision AMC and GM to Part-145**

The proposed text states:

IV. Content of the draft Opinion/Decision

...

Proposed amendment

20. Secondly **a new AMC 145.A.42 (a) is added** to describe the elements that may be contained in the procedure required by 145.A.42 (a). These elements are:

a. Incoming inspection of the components and material received from suppliers. The inspection should consist of a physical inspection to detect obvious damage and a verification that the accompanying documentation and data complies with the requirements of 145.A.45 (b).

b. Supplier evaluation. This does not necessarily mean an on-site audit. Other means of control including desk-top evaluation may be adequate provided the approval holder can justify the use of the means of control selected.

IV. Draft Decision AMC and GM to Part-145
AMC 145.A.42 (a) Acceptance of components

The procedures for acceptance of components should have the objective of ensuring that the supplied components and material are in satisfactory condition and meet the organisation’s requirements. These procedures may be based upon:

- 1) incoming inspections which include:
- physical inspection of components and/or material;
 - review of accompanying documentation and data, which should be acceptable in accordance with 145.A.42(e).

2) supplier evaluation and control.

Clarification is needed in both sections as to whether both incoming inspections AND supplier evaluation are necessary, or whether one OR the other is necessary. The fact that the text states, "These procedures **may** be based upon: ..." does not clearly delineate whether either or both actions **must** be used as the basis for acceptance.

In light of this, we suggest inserting either the word "and" or the word "or" between paragraphs a. and b. on page 7, and between 1) and 2) on page 17, as appropriate

Further, if both actions are necessary, then we suggest changing the word "may" to "**must**" in the lead-in sentence.

JUSTIFICATION: Clarification is needed as to which actions are to be used as the basis for acceptance of a component.

response

Accepted

Word 'and' added.

The proposal requires that Part-145 organisations establish procedures for the acceptance of components. AMC 145.A.42(b)(1) proposes a means to comply with this requirement based on incoming inspection and supplier evaluation. Organisations may have different procedures for acceptance of components depending on different factors such as the type of component (e.g. raw material vs communications equipment), type of supplier (e.g. whether or not the supplier is also the OEM), specific cases (e.g. the material is ordered on routine provisioning or it is an AOG case), etc.

Point (c) is added to GM3 145.A.42(b)(1) to clarify this.

A. Explanatory Note - V. Regulatory Impact Assessment

p. 8-15

comment

12

comment by: EASO

Line 1 needs "it" after "considered"

response

Accepted

comment

35

comment by: DGAC FRANCE

Paragraphs: V 5 about option 4

Comment: DGAC would have preferred option 4 and would recommend considering in a near future the possibility to regulate suppliers. It would be more efficient to address them once by their authority rather than being audited by each of the customers, under those customers Part 145 / M agreements. In the rationale presented by EASA, if they do not want to answer the EU market and

response

get such an agreement, they will not send answers anymore to the audits/questionnaires of each of their EU customers. Therefore, the solution retained and proposed in this NPA just put an administrative burden on the EU maintenance organisation, which shall take anyway responsibility of the parts it procures from those non-EU suppliers.

Not accepted

This proposal establishes a requirement to control the acceptance of components. In order to make this requirement scalable to the needs of different maintenance organisations, the proposal includes means of compliance in which evaluation of suppliers is one tool to support control of acceptance of components. Direct regulation of suppliers could undermine the working group's efforts to make this proposal scalable to the specific needs of different maintenance organisations, including smaller organisations. In addition, the working group has found that the majority of component suppliers are from the United States. Direct regulation of an industry where a necessary majority is situated outside of the EU would inject costs into the safety oversight mechanism that are unnecessary, in that they do not provide any additional safety benefit beyond that already achieved by the proposed mechanism.

comment

40

comment by: Airbus SAS

This Airbus Comment is related to:

Paragraph A.V. Regulatory Impact Assessment, sub-paragraph 2.2.

Proposal:

Airbus proposes to change the language of sub-para 2.2 from:

"[...]. The worst foreseeable situation would be that the failure of the installed non-conforming or un-approved parts or counterfeit parts could have catastrophic consequences; however, this occurrence is considered **improbable**. [...]

To:

"[...]. The worst foreseeable situation would be that the failure of the installed non-conforming or un-approved parts or counterfeit parts could have catastrophic consequences; however, this occurrence is considered **remote**. [...]"

Rationale for the Proposal:

According to the definitions given in the EASA TE.RMP.00037-003 (EASA Template, the term 'remote' includes the notion of past occurrence (i.e. possible to occur, has occurred rarely) while the term 'improbable' does not (i.e. not anticipated to occur).

The installation on aircraft of some pins and sleeves that were of an inferior quality and that did not satisfy specified values for hardness and tensile strength was one cause of the accident of the Partnair Convair CV-340/580, during the flight 394 on 08-Sep-1989 (ref. paragraphs 1.16.3 and 3.2 of the accident report made available at the following worldwide web location: <http://www.aibn.no/aviation/reports/1993-02-eng>).

Airbus would conclude that failure of installed non-conforming or un-approved parts or counterfeit parts has occurred, and therefore probability occurrence category 'remote' is more suitable than 'improbable'.

Note - Reproduction of subject definitions:

Remote: Unlikely, but possible to occur (has occurred rarely). Those failure conditions that are unlikely to occur to each aircraft within a category during its total life but that may occur several times when considering a specific type of operation.

Improbable: Very unlikely to occur. Those failure conditions not anticipated to occur to each aircraft during its total life but which may occur a few times when considering the total operational life of all aircraft within a category.

response Not accepted

B. Draft Opinion(s) and/or Decision(s) - I. Draft Opinion Part-M - M.A.501 Installation

p. 16

comment 13

comment by: EASO

M.A.501 Installation

There is no indication of why the words "on an aircraft" are to be deleted and it is difficult to see what is being achieved by doing so.
Suggest "on an aircraft or assembly"

response

Noted

The words 'on aircraft' are deleted because components may be also installed on other components.

comment 31

comment by: DGAC FRANCE

Paragraphs: M.A.501 & 145.A.42

Comment: Both paragraphs deal with 2 different subjects: general acceptance of components and conditions to install them on a specific aircraft. Nevertheless, M.A.501 title is "Installation" and 145.A.42 title is "Acceptance of components".

Therefore, DGAC proposes to modify the titles.

Proposed modification: Replace both titles by "Acceptance and installation of components" and also in the related AMC & GM.

Substantiation: With the new proposed title, it will be more consistent between the 2 paragraphs in both Parts and it will clearly define the issue dealt with.

response

Partially accepted

The title of paragraphs M.A.501 and 145.A.42 does not reflect their content. Therefore, the title of these paragraphs has been simplified.

B. Draft Opinion(s) and/or Decision(s) - II. Draft Opinion Part-145 - 145.A.42 Acceptance of components

p. 16-17

comment 2

comment by: Contact Air Quality

subarticle 4. Standard parts used.....

If no standard parts are specified by the manufacturer's IPC (which is real to some), may the maintenance organisation determine itself, what a standard part is (beside other requirements EASA Form 1, appropriate marking, modification control, airworthiness limitations, etc.) ?

AMC M.A. 501(c) and(d) provides examples of specifications and standards, but there are also others, regional or non explicit aviation standards, for some multi-use parts. Are those also acceptable?

response	<p>Thanks for feedback.</p> <p>Noted</p> <p>Comment 1:</p> <p>AMC M.A.501(b) explains that standard parts are <i>parts manufactured in complete compliance with an established industry, Agency, competent authority or other Government specification which includes design, manufacturing, test and acceptance criteria, and uniform identification requirements...</i></p> <p>These identification requirements, such as part numbering or particular denomination of the part would help organisations to determine whether a part is a standard part and to which standard this part was manufactured.</p> <p>Comment 2:</p> <p>AMC M.A.501(b) provides some examples. Other standards may be acceptable.</p>
comment	<p>5 comment by: MTU Aero Engines GmbH</p> <p>145.A.42 (a)1.</p> <p>MTU Aero Engines was involved in some discussions whether a copy of a EASA Form 1 is acceptable or not. There is no clear statement in the regulation (or AMC/GM).</p>
response	<p>Noted</p> <p>Both are acceptable; in fact the Regulation makes no distinction between an original and a copy.</p> <p>Appendix II to Part-M 'Completion and use of the EASA Form 1', point 3, says:</p> <p>3. COPIES</p> <p>3.1 There is no restriction in the number of copies of the Certificate sent to the customer or retained by the originator.</p>
comment	<p>14 comment by: EASO</p> <p>145.A.42 Acceptance of components</p> <p>Paragraph (e) The AMC for Part 145.A.42 does not provide any guidance on what is meant or required by "classification" or "appropriately segregated". Who decides what is appropriate?</p> <p>It should be noted that paragraph 4 of AMC M.A. 605(c) indicates that "segregation" means "storing unserviceable components in a separate secured location from serviceable components." Applying this to the 5 classifications of components referred to in this topic would present some practical difficulties.</p> <p>This practice is commonly and justifiably complied with for "unsalvageable parts". But the need to do so for "standard parts" and the other classifications must be questionable.</p> <p>There is also no guidance on what constitutes "appropriate traceability" (Paragraph 5).</p>
response	<p>Accepted</p>

Comment 1: The requirements in point 145.A.42 have been rearranged in a more consistent manner.

- 145.A.42(a) contains the requirements for classification of components' standard parts and material.
- 145.A.42(b) contains the requirements for components' standard parts and material for installation.
- 145.A.42(c) contains the requirements for segregation of unsalvageable and unserviceable components.

Segregation requirements have been aligned with those in 145.A.25(c) and M.A.605(c).

Comment 2: New AMC 145.A.42(a)(5) has been added. This AMC is copied information from the existing AMC M.A.501(d).

comment	<p>25 comment by: <i>AgustaWestland SpA</i></p> <p>Replace</p> <p>"The organisation shall establish procedures for the acceptance of components and material"</p> <p>with</p> <p>"The organisation shall establish procedures for acceptance of components and material and for supplier evaluation and control, or refer to them"</p>
response	<p>Partially accepted</p> <p>The proposal requires that Part-145 organisations establish procedures for the acceptance of components. AMC 145.A.42(b)(1) proposes a means to comply with this requirement based on incoming inspection and supplier evaluation. Organisations may have different procedures for acceptance of components depending on different factors such as the type of component (e.g. raw material vs communications equipment), type of supplier (e.g. whether or not the supplier is also the OEM), specific cases (e.g. the material is ordered on routine provisioning or it is an AOG case), etc.</p>
comment	<p>31 ❖ comment by: <i>DGAC FRANCE</i></p> <p><u>Paragraphs</u>: M.A.501 & 145.A.42</p> <p><u>Comment</u>: Both paragraphs deal with 2 different subjects: general acceptance of components and conditions to install them on a specific aircraft. Nevertheless, M.A.501 title is "Installation" and 145.A.42 title is "Acceptance of components".</p> <p>Therefore, DGAC proposes to modify the titles.</p> <p><u>Proposed modification</u>: Replace both titles by "Acceptance and installation of components" and also in the related AMC & GM.</p> <p><u>Substantiation</u>: With the new proposed title, it will be more consistent between the 2 paragraphs in both Parts and it will clearly define the issue dealt with.</p>
response	<p>Partially accepted</p> <p>The title of paragraph 145.A.42 has been amended.</p>

B. Draft Opinion(s) and/or Decision(s) - III. Draft Decision AMC and GM to Part-M - AMC M.A.501 (b) Installation	p. 17
---	-------

comment

15

comment by: EASO

Draft Decision AMC and GM to Part-M**AMC M.A.501 (b) Installation**

Should paragraph 2 be re-numbered as paragraph 1?

The paragraph as amended refers to "the person" without any apparent indication of who this person is.

The addition of "or the approved maintenance organisation" appears to leave a doubt about who is actually responsible.

The second bullet point should have "ensures compliance" replace with "the component".

Paragraph 3

Deletion of this paragraph also seems to remove responsibility for ensuring that the component fully complies with requirements.

I believe the original wording was much clearer in its allocation of responsibility.

response

Partially accepted

AMC M.A.501 has been reorganised.

References to CDCCL have been deleted.

GM M.A.501 is added to clarify the check that needs to be performed before installation. The person/organisation that is going to install the component is not responsible for checking that the component meets the approved data or that it complies with ADs. These are responsibilities of the aircraft's owner or the CAMO (if a CAMO is managing the continuing airworthiness of the aircraft).

comment

32

comment by: DGAC FRANCE

Paragraph: AMC M.A.501 (b)

Comment: Critical Design Configuration Control Limitations are specific to large or complex aircraft and therefore not quite often applicable to PartM.F structures. The proposed wording is ambiguous and let think that CDCCL could be applicable to all aircraft, which is not the case.

Proposed modification: Replace the words "ensure compliance with the applicable Critical Design Configuration Control Limitations" by the words "ensure compliance with the applicable Critical Design Configuration Control Limitations, if applicable"

response

Accepted

CDCCL has been deleted from AMC M.A.501.

comment	33	comment by: <i>DGAC FRANCE</i>
response	<p><u>Paragraphs:</u> AMC M.A.501 (b) & AMC 145.A.42 (b) 4th bullet</p> <p><u>Comment:</u> The wording « the component meets the required modification status » does not seem explicit enough to define exactly what is meant. The previous requirement “the component meets the approved data/standard, such as the required design and modification standard” was clearer.</p> <p><u>Proposed modification:</u> Replace the words “the component meets the required modification status” by the words “the component meets the approved data/standard, such as the required design and modification standard”.</p> <p>Partially accepted</p> <p>Text has been amended, but not as proposed by the commentator.</p> <p>M.A.501(b) and AMC M.A.501(b), 145.A.42(b) and AMC 145.A.42(b) have been deleted. Instead, M.A.501 and 145.A.42(b)(2) have been reworded to require that components, standard parts and materials shall only be installed when specified in the applicable maintenance data.</p> <p>In addition, GM M.A.501 and GM 145.A.42(b)(2) are added to clarify the check that needs to be performed before installation. This check should ensure that the part number of the component is the one referred to in the maintenance data (i.e. IPC, SB, etc.) provided by the customer.</p> <p>When installation is performed outside a maintenance organisation, that is by persons referred to in M.A.801(b)(2), M.A.801(b)(3),M.A.801(c) or M.A.801 (d), then the person is responsible to perform this check before installation.</p> <p>When installation is performed by a maintenance organisation, then the organisation has to establish procedures to ensure that this check is performed before installation.</p> <p>The person or organisation that is going to install the component is not responsible for checking that the component meets the approved design data or complies with ADs. These are responsibilities of the aircraft’s owner or the CAMO (if a CAMO is managing the continuing airworthiness of the aircraft).</p>	
comment	36	comment by: <i>Geoffroy WAGNER</i>
response	<p>In the current AD publication system, it is not possible to list the ADs applying to a specific Part Number. ADs can only filtered by the manufacturer's name or the aircraft type.</p> <p>How can a Part 145 organization meet this requirement on every part coming from any supplier ?</p> <p>Noted</p> <p>M.A.501(b) and AMC M.A.501(b), 145.A.42(b) and AMC 145.A.42(b) have been deleted. Instead, M.A.501 and 145.A.42(b)(2) have been reworded to require that components, standard parts and materials shall only be installed when specified in the applicable maintenance data.</p> <p>In addition, GM M.A.501 and GM 145.A.42(b)(2) are added to clarify the check that needs to be performed before installation. This check should ensure that the part number of the component is the one referred to in the maintenance data (i.e. IPC, SB, etc.) provided by the customer.</p> <p>When installation is performed outside a maintenance organisation, that is by the persons referred to in M.A.801(b)(2), M.A.801(b)(3),M.A.801(c) and M.A.801 (d),</p>	

then the person is responsible to perform this check before installation.

When installation is performed by a maintenance organisation, then the organisation has to establish procedures to ensure that this check is performed before installation.

The person or organisation that is going to install the component is not responsible for checking that the component meets the approved design data or complies with ADs. These are responsibilities of the aircraft's owner or the CAMO (if a CAMO is managing the continuing airworthiness of the aircraft).

B. Draft Opinion(s) and/or Decision(s) - III. Draft Decision AMC and GM to Part-M - GM M.A.501 (b) Installation

p. 17

comment 16

comment by: EASO

GM M.A.501 (b) Installation

This appears to refer to GM to Appendix II to Part-M but it is very unclear. This should be clarified.

response Accepted

The content of GM M.A.501(b) has been transferred to GM to Appendix II to Part-M.

B. Draft Opinion(s) and/or Decision(s) - IV. Draft Decision AMC and GM to Part-145 - AMC 145.A.42 (a) Acceptance of components

p. 17

comment 9

comment by: Dassault Aviation

In GM 145.A.42 (a) (2), it is not clear that suppliers EASA Part 145 or FAR 145 certified have a quality system that includes the elements described in 1). They should be added to the list of accepted standards in 2).

So the list should be :

- a. EN/AS9120 and listed in the OASIS database;
- b. ASA-100;
- c. EASO 2012;
- d. FAA AC00-56.
- e. EASA Part 145.
- f. FAA Part 145
- g. EN/AS 9100

response Not accepted

Part-145 and FAR-145 are approvals issued to organisations to perform and release maintenance. A supplier is an organisation that supplies/sells components to other organisations, and it does not need to be approved to perform maintenance.

A Part-145/FAR-145 organisation supplying components to other organisations will have to show how they meet the applicable elements of GM3 145.A.42(b)(1) to supply components to other organisations.

comment	<p>17</p> <p>AMC 145.A.42 (a) Acceptance of components</p> <p>Line 3: the use of "may" seems to imply a degree of discretion. I would have thought that these functions were mandatory for the organisations concerned so the use of "must" or "shall" would be more appropriate.</p> <p>Sub paragraph 1): there appears to be no guidance on what is required by way of incoming physical inspection or review of accompanying documentation.</p> <p>Second bullet point: in line 1 the use of "must" instead of "should" would seem more appropriate.</p> <p>AMC 145.A.42 (b) Acceptance of components</p> <p>It is not clear whether this is intended to be part of the incoming inspection or something done at a later stage.</p> <p>Making it (all the bullets except the first) part of the incoming inspection is not really practical as different aircraft may require parts of a different modification state or configuration.</p> <p>I have always been under the impression that it should be carried out by the person responsible for installing the part. 145.A.42 makes "the organisation" responsible. But I don't think responsibility is made very clear.</p>	comment by: <i>EASO</i>
response	<p>Partially accepted</p> <p>Comment 1: Partially accepted. The word 'may' is replaced by 'should'. The words 'shall' or 'must' are not adequate at AMC level.</p> <p>Comment 2: Accepted. GM has been added.</p> <p>Comment 3: Not accepted. The use of 'must' is not adequate at AMC level.</p> <p>Comment 4: Accepted. GM 145.A.42(b)(2) has been added to clarify this issue.</p>	
comment	<p>21</p> <p>AMC 145.A.42(a) (1)</p> <p>It is proposed for better understanding to replace "physical inspection" by "visual or technical inspection"</p>	comment by: <i>EUROCOPTER</i>
response	<p>Not accepted.</p> <p>The wording 'physical inspection' is commonly used by industry and may include visual or other type of inspection.</p>	
comment	<p>26</p> <p>Replace:</p> <p>"a) EN/AS9120 b) ASA-100 c) EASO 2012</p>	comment by: <i>AgustaWestland SpA</i>

d) FAA AC00-56"

with

"a) Part 21 Subpart G

b) EN/AS9100

c) EN/AS9120

d) ASA-100

e) EASO 2012

f) FAA AC00-56"

adding below the following sentence:

"Other checks for such supplier evaluation are not required except to verify the supplier certification of compliance to one or more of the above reported standards / regulations"

response

Not accepted

A Part-21 Subpart G approval certificate grants privileges to an organisation to produce components or products, but it does not cover the fact that this organisation may also supply components to Part-145 organisations.

As for EN/AS9100, the list provided in the GM is not intended to be exhaustive. There may be other quality system standards which contain the elements listed in point 1. The working group reviewed only some of the commonly used standards applicable to suppliers.

B. Draft Opinion(s) and/or Decision(s) - IV. Draft Decision AMC and GM to Part-145 - AMC 145.A.42 (b) Acceptance of components

p. 17-18

comment

33 ❖

comment by: DGAC FRANCE

Paragraphs: AMC M.A.501 (b) & AMC 145.A.42 (b) 4th bullet

Comment: The wording « the component meets the required modification status » does not seem explicit enough to define exactly what is meant. The previous requirement "the component meets the approved data/standard, such as the required design and modification standard" was clearer.

Proposed modification: Replace the words "the component meets the required modification status" by the words "the component meets the approved data/standard, such as the required design and modification standard".

response

Partially accepted.

Text has been amended, but not as proposed by the commentator.

M.A.501(b) and AMC M.A.501(b), 145.A.42(b) and AMC 145.A.42(b) have been deleted. Instead, M.A.501 and 145.A.42(b)(2) have been reworded to require that components, standard parts and materials shall only be installed when specified in the applicable maintenance data.

In addition, GM M.A.501 and GM 145.A.42(b)(2) are added to clarify the check that needs to be performed before installation. This check should ensure that the part number of the component is the one referred to in the maintenance data (i.e. IPC, SB, etc.) provided by the customer.

When installation is performed outside a maintenance organisation, that is by the

persons referred to in M.A.801(b)(2), M.A.801(b)(3), M.A.801(c) and M.A.801 (d), then the person is responsible to perform this check before installation. When installation is performed by a maintenance organisation, then the organisation has to establish procedures to ensure that this check is performed before installation.

The person or organisation that is going to install the component is not responsible for checking that the component meets the approved design data or complies with ADs. These are responsibilities of the aircraft's owner or the CAMO (if a CAMO is managing the continuing airworthiness of the aircraft).

B. Draft Opinion(s) and/or Decision(s) - IV. Draft Decision AMC and GM to Part-145 - GM 145.A.42 (a) Supplier evaluation and control

p. 18-19

comment	1	comment by: <i>EPCOR B.V.</i>
	This GM is about acceptance of components and material. GM 145.A.42 (a) 1) h. seems to be not appropriate to this GM, as it about measuring equipment, which is relevant to 145.A.40.	
response	Not accepted	
	This point refers to measuring equipment used by the supplier to control the storage, transportation, etc., of the supplied component.	
comment	4	comment by: <i>Lee Carslake</i>
	Ref GM 145.A.42(a) 2. - concern is expressed regarding blanket EASO (European Aviation Suppliers Organisation) acceptance, as it is possible to become registered by declaring an intent to become accredited under the EN/AS 9100 series standard. Therefore suggest the text at point c. is changed to state "EASA 2012 certified members".	
	Kind Regards Lee Carslake Quality Manager, Airbase Interiors UK.145.1092	
response	Not accepted	
	Text has not amended. The working group agrees that membership to the trade association is different than being certified to the standard. An organisation can become a member but it is not a certified supplier until it is certified to the EASO 2012 quality management system.	
	The working group considers that the proposed text already reflects this condition because it refers to suppliers certified to officially recognised standards.	
comment	7	comment by: <i>KLM Engineering & Maintenance</i>
	Paragraph 2) of GM 145.A.42(a) creates more confusion than it is supposed to solve: even if suppliers may upfront be acceptable, the receiving organisation still is not exempted from its obligation to ensure that supplied components and material are in satisfactory condition. So it would be better to leave Paragraph 2) out altogether.	

response Not accepted

The organisation remains responsible for the acceptance of components in any case; text has not been amended.

comment 18 comment by: EASO

GM 145.A.42 (a) Supplier evaluation and control

1)
Line 1: Again we have this rather woolly "may be checked". Don't they all need to be checked?

As an aside, I don't see any requirement for 145 organisations to have all these features in their quality system.

2)
 A supplier which has all the points in 1) in their quality system "**may** be acceptable".

I would have thought that suppliers certified to officially recognised standards that have a quality system that includes the elements specified in 1) **would** be acceptable and that it would therefore not be necessary for every 145 organisation to undertake an audit of those elements. Is this the intention? If so, I think it could be made a bit clearer.

3)
 Further to the comments regarding AMC145.A.42 (a) above, I see no guidance in part 145 on what should be expected by way of incoming physical inspection or review of accompanying documentation. AMC M.A.501 (a) provides some help albeit limited.
 I think this is important because helps determine the skill and knowledge requirements for those employed on incoming inspection. These are referred to in 145 as "inspectors" which, of course they are, but I think some organisations think it means they have to be aircraft maintenance inspectors.

response Partially accepted

Comment 1: Partially accepted. 'may' has been replaced by 'should'.

Comment 2: Not accepted.

Comment 3: Accepted. GM1 145.A.42(b)(1) on incoming inspection has been added

comment 30 comment by: Boeing

Page: 19 of 33
 Paragraph: **GM 145.A.42 (a) Supplier evaluation and control**

The proposed text states:

GM 145.A.42 (a) Supplier evaluation and control
 1) *The following elements may be checked for the evaluation and control of a supplier's quality system, as appropriate, to ensure that the component and/or material is supplied in satisfactory condition: ...*

We recommend changing the text as follows:

GM 145.A.42 (a) Supplier evaluation and control

1) The following elements may be ~~checked~~ **considered** for the evaluation ~~and control~~ of a supplier's quality system, as appropriate, to **help** ensure that the component and/or material is supplied in satisfactory condition: ...

JUSTIFICATION:

As proposed in the NPA, this opening statement states that, if one or all of the elements that follow are checked, then the component and/or material can be considered to be supplied in satisfactory condition.

Supplier evaluation, as stated in this NPA, does not necessarily mean an on-site audit, and other means of control (including desk-top evaluation) may be deemed adequate. It is erroneous to assume that certain key quality system elements are being carried out as stated in procedures without inspection or, in some cases, on-site audits to verify it.

The NPA language only asks if supplier procedures are present. The actual practice of these key quality system elements by the supplier is key to product conformance. If a desk audit is the only audit performed, then this audit cannot "ensure" that the component and/or material is supplied in satisfactory condition.

response

Partially accepted

Word 'checked' has been replaced by 'considered'.

The words 'evaluation and control' have been replaced by 'initially and recurrent evaluation'.

The word 'help' is not accepted.

comment

34

comment by: DGAC FRANCE

Paragraph: GM 145.A.42 (a) (1)

Comment: This paragraph lists several procedures that are not necessary for every specific supplier. The responsibility is given to the Part 145 maintenance shop, and therefore it could lead to understand that this structure is likely to check all supplier procedures, which represents a too heavy burden. DGAC France feels like it should be necessary to propose additional GM to reduce this burden.

Proposed modification: At the end of GM 145.A.42 (a) (1), add the following paragraphs:

"The supplier should send a list of all developed procedures suited to the components. The supplier evaluation and control should be proportionate to the component criticality and to the amount of supplied components. This evaluation and control may be limited to a desk-top evaluation of a particular procedure or end up with an on-site audit, if deemed necessary.

For each provided component, a statement from the supplier indicating that it was controlled and stored in conformity with the applicable procedures should be issued and provided to the maintenance organisation with the associated release certificate."

Substantiation: It seems necessary that the Part 145 maintenance shop could partially rely on the supplier commitment. It is also obvious that it is not possible to audit all suppliers.

response	<p>Partially accepted</p> <p>First part of the comment: GM3 145.A.42(b)(1), point (c), has been added to indicate that supplier evaluation may vary depending on the type of component, type of supplier, and the case.</p> <p>Second part of the comment: Not accepted. The proposal is not regulating suppliers.</p>
----------	--

5.2. Comments on NPA 2013-01 (C) and responses thereto

Draft Opinion/Decision – ANNEX II; Section A – Technical and Organisation Requirements – 145.A.42 Acceptance of components	p. 70-71
---	----------

comment	<p>42 comment by: <i>Didier FOUCHE Sabena technics</i></p> <p>- Page 71: 145.A.42 (b) 6 (v): Regarding standard parts, many of them are identified, within the OEM technical data, with an OEM P/N or identification code (such as BAC for Boeing, ASNA for Airbus), even if they primarily comply with and are equivalent to international standards (MS, NAS, ...). So, it must be authorized, when the manufacturers technical data specify such equivalences, or when the organization may prove the equivalences based on standards or acceptable data, to use equivalent P/Ns of standards parts.</p>
response	<p>Not accepted</p> <p>The installation of a component, standard part or material shall only be performed when the maintenance data specifies that component, standard part or material. This is clarified in 145.A.42(b).</p> <p>The use of components, standard parts or material different to the ones specified in the maintenance data will represent a change to the product and it would have to be approved as such.</p>
comment	<p>43 comment by: <i>Didier FOUCHE Sabena technics</i></p> <p>- Page 71: 145.A.42 (b) 6 (vi): Regarding the consumables materials, some of them are defined in the manufacturers technical data, only within a scope of a commercial agreement between the aircraft or component manufacturer and the material manufacturer. Even when equivalent material, with the same characteristics (sometime better from a security point of view) and compliant with the same standards, are usable. It may be permitted to an organization to use an equivalent consumable material according to a procedure acceptable to the authority.</p>
response	<p>Not accepted</p> <p>The installation of a component, standard part or material shall only be performed when the maintenance data specifies that component, standard part or material. This is clarified in 145.A.42(b).</p> <p>The use of components, standard parts or material different to the ones specified in the maintenance data will represent a change to the product and it would have to be approved as such.</p>

comment	75	comment by: EASO						
	<p>This paragraph conflicts with NPA2012-03 which states</p> <p>145.A.42 Acceptance of components</p> <p>(a) The organisation shall establish procedures for the acceptance of components and material.</p> <p>(b) Prior to installation of a component, the organisation shall ensure that the particular component is eligible to be fitted when different modification and/or airworthiness directive standards may be applicable.</p> <p>(c) The organisation may fabricate a restricted range of parts to be used in the course of undergoing work within its own facilities provided procedures are identified in the exposition.</p> <p>(d) Components which have reached their certified life limit or contain a non-repairable defect shall be classified as unsalvageable and shall not be permitted to re-enter the component supply system unless certified life limits have been extended or a repair solution has been approved according to Part-21.</p> <p>(a) (e) All components shall be classified and appropriately segregated into the following categories:</p> <ol style="list-style-type: none"> 1. Components which are in a satisfactory condition, released on an EASA Form 1 or equivalent and marked in accordance with Part-21 Subpart Q. 2. Unserviceable components which shall be maintained in accordance with this section. 3. Unsalvageable components which are classified in accordance with 145.A.42(d). 4. Standard parts used on an aircraft, engine, propeller or other aircraft component when specified in the manufacturer's illustrated parts catalogue and/or the maintenance data. 5. Material both raw and consumable used in the course of maintenance when the organisation is satisfied that the material meets the required specification and has appropriate traceability. All 							
response	<p>Noted</p> <p>The resulting text proposed in this CRD considers the task 145.017.</p>							
comment	97	comment by: MTU Maintenance Hannover GmbH						
	<table border="1"> <tr> <td data-bbox="352 1485 502 1794">145.A.42 (a)</td> <td data-bbox="507 1485 1204 1794">The annex to Commission Regulation (EC) No 748/2012 can be revised and receive a new regulation number. This would mean a pointless revision to Part-145 in order to retain validity with the EC Regulation and result in associated manpower resource wastage not only throughout the competent authorities but also in industry. Industry generally references the relevant parts, e.g. Part-66, Part-145, etc.</td> <td data-bbox="1209 1485 1498 1794">Change to read:in accordance with Subpart Q of Part-21, unless otherwise....</td> </tr> <tr> <td data-bbox="352 1800 502 2031">145.A.42 (b)(1)</td> <td data-bbox="507 1800 1204 2031">The annex to Commission Regulation (EC) No 748/2012 can be revised and receive a new regulation number. This would mean a pointless revision to Part-145 in order to retain validity with the EC Regulation and result in associated manpower resource wastage not only throughout the competent authorities but also in industry.</td> <td data-bbox="1209 1800 1498 2031">Change to read:in accordance with Subpart Q of Part-21, unless otherwise....</td> </tr> </table>		145.A.42 (a)	The annex to Commission Regulation (EC) No 748/2012 can be revised and receive a new regulation number. This would mean a pointless revision to Part-145 in order to retain validity with the EC Regulation and result in associated manpower resource wastage not only throughout the competent authorities but also in industry. Industry generally references the relevant parts, e.g. Part-66, Part-145, etc.	Change to read:in accordance with Subpart Q of Part-21, unless otherwise....	145.A.42 (b)(1)	The annex to Commission Regulation (EC) No 748/2012 can be revised and receive a new regulation number. This would mean a pointless revision to Part-145 in order to retain validity with the EC Regulation and result in associated manpower resource wastage not only throughout the competent authorities but also in industry.	Change to read:in accordance with Subpart Q of Part-21, unless otherwise....
145.A.42 (a)	The annex to Commission Regulation (EC) No 748/2012 can be revised and receive a new regulation number. This would mean a pointless revision to Part-145 in order to retain validity with the EC Regulation and result in associated manpower resource wastage not only throughout the competent authorities but also in industry. Industry generally references the relevant parts, e.g. Part-66, Part-145, etc.	Change to read:in accordance with Subpart Q of Part-21, unless otherwise....						
145.A.42 (b)(1)	The annex to Commission Regulation (EC) No 748/2012 can be revised and receive a new regulation number. This would mean a pointless revision to Part-145 in order to retain validity with the EC Regulation and result in associated manpower resource wastage not only throughout the competent authorities but also in industry.	Change to read:in accordance with Subpart Q of Part-21, unless otherwise....						

	Industry generally references the relevant parts, e.g. Part-66, Part-145, etc.	
145.A.42 (b)(6)	The annex to Commission Regulation (EC) No 748/2012 can be revised and receive a new regulation number. This would mean a pointless revision to Part-145 in order to retain validity with the EC Regulation and result in associated manpower resource wastage not only throughout the competent authorities but also in industry. Industry generally references the relevant parts, e.g. Part-66, Part-145, etc.	Change to read:in accordance with Subpart Q of Part-21, unless otherwise....
145.A.42 (b)(6)(iii)	The annex to Commission Regulation (EC) No 748/2012 can be revised and receive a new regulation number. This would mean a pointless revision to Part-145 in order to retain validity with the EC Regulation and result in associated manpower resource wastage not only throughout the competent authorities but also in industry. Industry generally references the relevant parts, e.g. Part-66, Part-145, etc.	Change to read:in accordance with Part-21.
145.A.42 (b)(6)(iv)	The annex to Commission Regulation (EC) No 748/2012 can be revised and receive a new regulation number. This would mean a pointless revision to Part-145 in order to retain validity with the EC Regulation and result in associated manpower resource wastage not only throughout the competent authorities but also in industry. Industry generally references the relevant parts, e.g. Part-66, Part-145, etc.	Change to read:referred to in 21A.307(c) shall only be....

response

Noted

This change is not going to be made with this rulemaking task because for consistency reasons it would be necessary to amend several other points of Regulation (EC) No 2042/2003.

comment

137

comment by: FAA

145.A.42(b)(1) Regulation 1702/2003 has changed to 748/2012
 145.A.42(b)(6)(v) & (vi) This has more definition to traceability than past regulation.

response

Noted

comment

215

comment by: EUROPEAN AVIATION QUALITY GROUP (EAQG)

NPA Reference:
 145.A.42 (b) 3
 Comment:
 The point 145.A.42 (e).referenced under 145.A.42 (b) 3, does not exist.Proposed
 Change to Text:
 Change 145.A.42 (b) 3 to: Unsalvageable components are classified in accordance

response	<p>with point AMC1 145.A.43(c)</p> <p>Accepted.</p> <p>Numbering has been corrected.</p>
comment	<p>315 comment by: LHT</p> <p>Subnumer 6: The numbering has obviously been confused. If incorrect (assumed), the numbering should be corrected in the following way: 6.(i) to (c).; 6(ii) to (d).; 6(iii) to (e) etc. 21A.307(c) should correctly read 21.A.307(c) (a dot between 21 and A); may apply to other paragraphs as well where Part-21 is quoted</p>
response	<p>Accepted.</p> <p>Numbering has been corrected.</p>
comment	<p>350 comment by: MTU Aero Engines AG</p> <p>145.A.42 (b)(1)</p> <p>Comment to the current text of 2042/2003</p> <p>The text does not state whether the EASA Form 1 must be an original or a copy.</p> <p>Proposed change</p> <p>Clarify acceptance of copies.</p>
response	<p>Noted</p> <p>Both are acceptable; in fact the Regulation makes no distinction between an original and a copy.</p> <p>Appendix II to Part-M 'Completion and use of the EASA Form 1', point 3, says:</p> <p>3. COPIES</p> <p>3.1 There is no restriction in the number of copies of the Certificate sent to the customer or retained by the originator.</p>
comment	<p>363 comment by: MTU Aero Engines AG</p> <p>145.A.42 (a) and (b)</p> <p>Editorially comment</p> <p>In case the annex to Commission Regulation (EC) No 748/2012 will be revised, it will receive a new regulation number. This also will require a revision to Part 145 in order to retain validity with the EU Regulation.</p> <p>Proposed change</p> <ul style="list-style-type: none"> • 145.A.42 (a) and (b)(1) <p>Change to read:</p> <p>..in accordance with Subpart Q of EASA Part 21, unless otherwise...</p> <ul style="list-style-type: none"> • 145.A.42 (b)(6) <p>Change to read:</p> <p>Components referred to in point 21A.307(c) of EASA Part 21.</p> <ul style="list-style-type: none"> • 145.A.42 (b)(6)(iii) <p>Change to read:</p> <p>..a repair solution has been approved according to EASA Part 21</p> <ul style="list-style-type: none"> • 145.A.42 (b)(6)(iv)

response	<p>.. Components referred to in point 21A.307(c) of EASA Part 21</p> <p>Noted</p> <p>This change is not going to be made with this rulemaking task because for consistency reasons it would be necessary to amend several other points of Regulation (EC) No 2042/2003.</p>
comment	<p>398 comment by: <i>Modification and Replacement Parts Association</i></p> <p>IR 145.A.42(a) begins: "no component may be fitted unless" This language has the unintended potential to create the need for exponentially more Form 1s because the language can be interpreted to require each discrete component to require a Form 1. For instance, in the case of an engine overhaul, it may be read to require each blade on a given disc have a unique Form 1, the disc itself to have a Form 1, and so. The intent of the rule is clearly not to create an additional paperwork burden, but to ensure the airworthiness of components before they are fitted to an aircraft.</p> <p>We recommend inserting the phrase "to an aircraft" after the word "fitted" to better clarify the regulation. The new language would read: "no component may be fitted <i>to an aircraft</i> unless" Such a revision captures the intent of the regulation to ensure the safety of each component, without necessitating the burden of including a Form 1 for each discrete component contained within a larger component.</p> <p>145.A.42(a) also requires all components to be "appropriately released to service on an EASA Form 1 or equivalent." Subparagraph (b) then describes six categories of components for which a Form 1 would be required. Among those are the parts described in sub-subparagraphs (b)4 and (b)5: standard parts and raw and consumable materials. Historically, however, as well as within the AMC to 145.A.42, these parts are not eligible for a Form 1. The language of the provision therefore requires standard parts and raw and consumable materials to be issued a Form 1 for which they are not eligible under the regulations. There is no regulatory relief from the requirements of subparagraph (a) described in the regulation.</p> <p>In order to clarify the components that require a Form 1 under the regulation, and exemption from the Form 1 requirement must be spelled out in the IR itself, rather than in the advisory language (e.g., AMC1 145.A.42(g), AMC1 145.A.42(h)). Subparagraph (a) concludes by allowing exceptions for components "otherwise specified [in Subpart Q], or in this Regulation." The exception to the Form 1 requirement for standard parts and materials should be written into the Regulation itself. We suggest inserting language in IR 145.A.42 stating that an EASA Form 1 is not required for standard parts, or raw or consumable materials.</p> <p>The requirement that a Form 1 be issued for standard parts also creates an uneven playing field between TC holders and parts distributors, essentially making TC holders the only persons who can sell standard parts. This is due to the fact that distributors are not able to obtain an EASA Form 1 (or FAA 8130-3 tag) for standard parts. TC holders, on the other hand, would be able to designate a standard part in their manuals and obtain a Form 1 with respect to those parts (see AMC1 145.A.42(g)(a)). This essentially creates an oligopoly over standard parts in the aviation industry among TC holders as they are the only parties who can obtain the regulatorily required (but not issuable) Form 1.</p> <p>The first sentence of provision (b)6.(v) states that "standard parts shall only be fitted to an aircraft or a component when the maintenance data specifies the <i>particular</i> standard part." In this context, the word "particular" is meant to refer to a specific standard part by nomenclature (ensuring that the standard part,</p>

regardless of manufacturer, complies with an international standard). It has become practice, however, for certain maintenance data to call out standard parts by manufacturer, rather than nomenclature. In such a scenario, a literal reading of (b)g.(v) would preclude all other standard parts not made by the manufacturer called out in the maintenance data. This possibility is contrary to the purpose of standard parts. Additionally, as a matter of common practice, standard parts are frequently combined and stored in the same bin, without regard to the many manufacturers, due to the standardized nature of the parts.

We recommend that that wording of the first sentence be clarified to explain that "particular standard part" is a reference to the part by nomenclature, and not a reference to a particular manufacturer.

Provision (b)6.(v) also states that "standard parts shall only be fitted when accompanied by evidence of conformity *traceable* to the applicable standard." The inclusion of the word traceable is likely to cause confusion with the concept of traceability.

A number of requirements address traceability of components. This provision deals only with the use of standard parts called out in maintenance data. Use of the word "traceable" may cause confusion and lead to demands for traceability documentation. We suggest the sentence be edited to read "standard parts shall only be fitted when accompanied by evidence of conformity to the applicable standard." This more clearly conveys the requirement that standard parts meet an applicable international standard.

Subsubparagraph (b)6.(vi) states that "material shall only be used when the material meets the required specification" described in the maintenance data. This creates a conflict with a large number of existing maintenance manuals that call out raw or consumable materials without a reference to a specification. An example of this would be a maintenance manual requiring the use of "sheetmetal" but not calling out any particular specification. This provision must be reviewed in light of the number of currently approved manuals that call out raw materials only without reference to a required specification.

response

Partially accepted

IR 145.A.42(a) begins: 'no component may be fitted unless...' Text has been amended although not as proposed by the commentator.

Point 145.A.42 has been reworded to improve reading and consistency with other paragraphs of Part-145.

145.A.42(a) has been structured in such a way so that the requirements for components, standard parts and materials are split in different points.

145.A.42(a)(1) has been redrafted taking into account the fact that the existence of provisions in Part-145 and in Part-21 allow the installation of components without an EASA Form 1 for particular conditions. (ref.: 145.A.50(f), 21.A.307 (c))

AMC 145.A.42(a)(4) has been added to clarify that an EASA Form 1 is not required for standard parts.

145.A.42(a)(3): the reference to 'traceable to the applicable standard' has not been amended. This is the existing text and there is no evidence that it creates confusion.

145.A.42(a)(4): the reference to 'material meets the required specification' has not been amended. This is the existing text and there is no evidence that it creates confusion.

comment 523

comment by: ASA

IR 145.A.42(a) begins: "no component may be fitted unless" This language has the unintended potential to create the need for exponentially more Form 1s because the language can be interpreted to require each discrete component to require a Form 1. For instance, in the case of an engine overhaul, it may be read to require each blade on a given disc have a unique Form 1, the disc itself to have a Form 1, and so. The intent of the rule is clearly not to create an additional paperwork burden, but to ensure the airworthiness of components before they are fitted to an aircraft.

We recommend inserting the phrase "to an aircraft" after the word "fitted" to better clarify the regulation. The new language would read: "no component may be fitted *to an aircraft* unless" Such a revision captures the intent of the regulation to ensure the safety of each component, without necessitating the burden of including a Form 1 for each discrete component contained within a larger component.

145.A.42(a) also requires all components to be "appropriately released to service on an EASA Form 1 or equivalent." Subparagraph (b) then describes six categories of components for which a Form 1 would be required. Among those are the parts described in sub-subparagraphs (b)4 and (b)5: standard parts and raw and consumable materials. Historically, however, as well as within the AMC to 145.A.42, these parts are not eligible for a Form 1. The language of the provision therefore requires standard parts and raw and consumable materials to be issued a Form 1 for which they are not eligible under the regulations. There is no regulatory relief from the requirements of subparagraph (a) described in the regulation.

In order to clarify the components that require a Form 1 under the regulation, and exemption from the Form 1 requirement must be spelled out in the IR itself, rather than in the advisory language (e.g., AMC1 145.A.42(g), AMC1 145.A.42(h)). Subparagraph (a) concludes by allowing exceptions for components "otherwise specified [in Subpart Q], or in this Regulation." The exception to the Form 1 requirement for standard parts and materials should be written into the Regulation itself. We suggest inserting language in IR 145.A.42 stating that an EASA Form 1 is not required for standard parts, or raw or consumable materials.

The requirement that a Form 1 be issued for standard parts also creates an uneven playing field between TC holders and parts distributors, essentially making TC holders the only persons who can sell standard parts. This is due to the fact that distributors are not able to obtain an EASA Form 1 (or FAA 8130-3 tag) for standard parts. TC holders, on the other hand, would be able to designate a standard part in their manuals and obtain a Form 1 with respect to those parts (see AMC1 145.A.42(g)(a)). This essentially creates an oligopoly over standard parts in the aviation industry among TC holders as they are the only parties who can obtain the regulatorily required (but not issuable) Form 1.

The first sentence of provision (b)6.(v) states that "standard parts shall only be fitted to an aircraft or a component when the maintenance data specifies the *particular* standard part." In this context, the word "particular" is meant to refer to a specific standard part by nomenclature (ensuring that the standard part, regardless of manufacturer, complies with an international standard). It has become practice, however, for certain maintenance data to call out standard parts by manufacturer, rather than nomenclature. In such a scenario, a literal reading of (b)6.(v) would preclude all other standard parts not made by the manufacturer called out in the maintenance data. This possibility is contrary to the purpose of standard parts. Additionally, as a matter of common practice, standard parts are

frequently combined and stored in the same bin, without regard to the many manufacturers, due to the standardized nature of the parts.

We recommend that that wording of the first sentence be clarified to explain that "particular standard part" is a reference to the part by nomenclature, and not a reference to a particular manufacturer.

Provision (b)6.(v) also states that "standard parts shall only be fitted when accompanied by evidence of conformity *traceable* to the applicable standard." The inclusion of the word traceable is likely to cause confusion with the concept of traceability.

A number of requirements address traceability of components. This provision deals only with the use of standard parts called out in maintenance data. Use of the word "traceable" may cause confusion and lead to demands for traceability documentation. We suggest the sentence be edited to read "standard parts shall only be fitted when accompanied by evidence of conformity to the applicable standard." This more clearly conveys the requirement that standard parts meet an applicable international standard.

Subsubparagraph (b)6.(vi) states that "material shall only be used when the material meets the required specification" described in the maintenance data. This creates a conflict with a large number of existing maintenance manuals that call out raw or consumable materials without a reference to a specification. An example of this would be a maintenance manual requiring the use of "sheetmetal" but not calling out any particular specification. This provision must be reviewed in light of the number of currently approved manuals that call out raw materials only without reference to a required specification.

response Your comment duplicates comment No 398.
Please refer to the response provided to comment No 398.

comment **581** comment by: AEA

Subnumner 6: The numbering has obviously been confused.
If incorrect (assumed), the numbering should be corrected in the following way: 6.(i) to (c).; 6(ii) to (d).; 6(iii) to (e) etc. 21A.307(c) should correctly read 21.A.307(c) (a dot between 21 and A); may apply to other paragraphs as well where Part-21 is quoted

response Accepted.
The numbering and Part-21 references will be corrected

comment **634** comment by: Pratt & Whitney

145.A.42(a)	Requires a "Form 1 or equivalent" or "No component may be installed". The statement is too restrictive. For example, parts removed in engine shops may be inspected and placed directly on another engine for the same operator. A substantial amount of part swaps internally occur within an AMO when working on multiple engines, for example, of a customer and there should be no need to issue Form 1's. This is also a place where the "absolute" statement	More exceptions need to be stated.
-------------	--	------------------------------------

	of the regulation is then changed by the AMC1.				
response	<p>Accepted.</p> <p>The provisions of 145.A.42(a)(1) have been complemented with the text 'unless otherwise specified in Annex (Part-21) to Regulation (EU) No 748/2012 or in this Annex II (Part-145)', which makes this paragraph compatible with other provisions of Part-145 and Part-21 which allow installing components without an EASA Form 1 in specific cases.</p>				
comment	635	comment by: <i>Pratt & Whitney</i>			
	<table border="1"> <tr> <td>145.A.42 (b) 6 (v)</td> <td>Standard parts shall only be fitted when accompanied by evidence of conformity traceable to the applicable standard.</td> <td>A provision needs to be made to clarify that a Form 1 or equivalent for inspected used standard parts is an acceptable conformity.</td> </tr> </table>	145.A.42 (b) 6 (v)	Standard parts shall only be fitted when accompanied by evidence of conformity traceable to the applicable standard.	A provision needs to be made to clarify that a Form 1 or equivalent for inspected used standard parts is an acceptable conformity.	
145.A.42 (b) 6 (v)	Standard parts shall only be fitted when accompanied by evidence of conformity traceable to the applicable standard.	A provision needs to be made to clarify that a Form 1 or equivalent for inspected used standard parts is an acceptable conformity.			
response	<p>Not accepted.</p> <p>The EASA Form 1, for a part that has been subject to maintenance, serves to release the maintenance performed on that part.</p>				

Draft Opinion/Decision – ANNEX II; Section A – Technical and Organisation Requirements – AMC1 145.A.42(a) Acceptance of components

p. 71-72

comment	76	comment by: <i>EASO</i>
	<p>This Conflicts with NPA 2012-03 which states</p> <p>AMC 145.A.42 (a) Acceptance of components The procedures for acceptance of components should have the objective of ensuring that the supplied components and material are in satisfactory condition and meet the organisation's requirements. These procedures may be based upon:</p> <ol style="list-style-type: none"> 1) incoming inspections which include: physical inspection of components and/or material; review of accompanying documentation and data, which should be acceptable in accordance with 145.A.42(e). 2) supplier evaluation and control. 	
response	<p>Noted</p> <p>The Agency has decided to move all the comments posted to NPA 2013-01 (C), points 145.A.42, AMC/GM 145.A.42, 145.A.43 and AMC/GM 145.A.43, to this CRD 2012-03 to propose a consolidated amendment to these requirements taking into account both the work performed by the working group of task 145.017 and the comments posted by stakeholders to NPA 2013-01 (C).</p>	
comment	330	comment by: <i>LHT</i>

	<p>Attachment #3</p> <p>AMC1 145.A.42(a)(4)..."tape should not be used for to cover electric al connections...": Comment: According Boeing SWPM (see attached) tape is a alternate protection material. Please review this item.</p>	
response	Accepted	
	<p>Text in GM M.A.501 and GM 145.A.42(b)(1) has been amended as follows:</p> <p>'...verify that the component has all plugs and caps appropriately installed to prevent damage or internal contamination. Care should be taken when tape is used to cover electrical connections or fluid fittings/openings because adhesive residues can insulate electrical connections and contaminate hydraulic or fuel units.'</p>	
comment	387	comment by: DGAC FRANCE
	<p>For instance, in paragraph (a): Why are the use of the two words "checks" and "verification" ? Is there something so different between the two words that it needs therefore to be written as such ? DGAC recommends to delete the word "checks".</p>	
response	Accepted.	
	<p>The GM M.A.501(a) text has been amended as follows:</p> <p>'To ensure that components, standard parts and material are in satisfactory condition, the person referred to under M.A.801(b)(2), M.A.801(b)(3), M.A.801(c), M.A.801 (d)or the approved maintenance organisation should perform an incoming physical inspection.'</p>	
comment	582	comment by: AEA
	<p>AMC1 145.A.42(a)(4)..."tape should not be used for to cover electric al connections...": Comment: According Boeing SWPM (see attached) tape is a alternate protection material. Please review this item.</p>	
response	<p>Your comments duplicates comment No 330. Please see response provided to comment No 330.</p>	
comment	655	comment by: Modification and Replacement Parts Association
	<p>AMC1 145.A.42(a) subparagraph (c) contains a list of typical checks to be performed regarding components. These descriptions should be deleted or clarified, as a number of them are not generally applicable, and have the potential to be misapplied.</p> <p>Subsubparagraph (c)(2) states that the shelf life of a component should be verified. Although it seems self-evident that this should <u>only</u> apply to those components that are shelf-life limited, there have been previous instances of vaguely worded regulations leading persons to request expiration information about components that are not shelf-life limited. For advisory materials such as these, it is important to be precise; we recommend inserting the following language (in <i>italics</i>): "<i>in the case of shelf-life limited components verification of</i></p>	

that shelf life of teh component has not expired."
 Subsubparagraph (c)(3) states that verification should be made that "items are received in the appropriate package in respect of the type of component." There are, however, no packaging requirements in the regulations themselves, and therefore no regulatory requirements or metrics against which to measure the propriety of any given packaging. This advisory material should be omitted because there is no objective way to comply under the current regulations.
 Subsubparagrph (c)(4) requires verification that a component "has all plugs and caps appropriately installed." This provision is intended to apply to hydraulic and fuel units as demonstrated by the second sentence of the provision, but can easily be misconstrued to apply to any component that has electrical connections or fluid fittings or openings. The provision should be clarified to indicate that it applies only to hydraulic or fuel units.

response Partially accepted

This text contains general recommendations and guidelines, so it has been moved to GM M.A.501, GM1 145.A.42(b)(1).

comment 656

comment by: ASA

AMC1 145.A.42(a) subparagraph (c) contains a list of typical checks to be performed regarding components. These descriptions should be deleted or clarified, as a number of them are not generally applicable, and have the potential to be misapplied.

Subsubparagraph (c)(2) states that the shelf life of a component should be verified. Although it seems self-evident that this should only apply to those components that are shelf-life limited, there have been previous instances of vaguely worded regulations leading persons to request expiration information about components that are not shelf-life limited. For advisory materials such as these, it is important to be precise; we recommend inserting the following language (in *italics*): "*in the case of shelf-life limited components verification of that shelf life of teh component has not expired.*"

Subsubparagraph (c)(3) states that verification should be made that "items are received in the appropriate package in respect of the type of component." There are, however, no packaging requirements in the regulations themselves, and therefore no regulatory requirements or metrics against which to measure the propriety of any given packaging. This advisory material should be omitted because there is no objective way to comply under the current regulations.

Subsubparagrph (c)(4) requires verification that a component "has all plugs and caps appropriately installed." This provision is intended to apply to hydraulic and fuel units as demonstrated by the second sentence of the provision, but can easily be misconstrued to apply to any component that has electrical connections or fluid fittings or openings. The provision should be clarified to indicate that it applies only to hydraulic or fuel units.

response Your comment duplicates comment No 655.

Please see response provided to comment No 655.

comment 77

comment by: EASO

This conflicts with NPA 2012-03 which states

GM 145.A.42 (a) Supplier evaluation and control

1) The following elements may be checked for the evaluation and control of a supplier's

quality system, as appropriate, to ensure that the component and/or material is supplied in satisfactory condition:

a. Availability of appropriate up to date regulations, specifications such as component manufacturer's data and standards;

b. Standards and procedures for training of personnel and competency assessment;

c. Procedures for shelf-life control;

d. Procedures for handling of electrostatic sensitive devices;

e. Procedure for identifying the source from which components and material were received;

f. Purchasing procedures identifying documentation to accompany components and material for subsequent use by approved Part-145 maintenance organisations;

g. Procedures for incoming inspection of components and materials;

h. Procedures for control of measuring equipment that provide for appropriate storage, usage, and for calibration when such equipment is required;

i. Procedures to ensure appropriate storage conditions for components and materials that are adequate to protect the components and materials from damage and/or deterioration. Such procedures should comply with manufacturers' recommendations and relevant standards;

j. Procedures for adequate packing and shipping of components and materials to protect them from damage and deterioration, including procedures for proper shipping of dangerous goods. (e.g. ICAO and ATA specifications)

k. Procedure for detecting and reporting of suspected unapproved components;

l. Procedure for handling unsalvageable components in accordance with applicable regulations and standards;

m. Procedures for batch splitting or redistribution of lots and handling of the related documents;

n. Procedure notifying purchasers of any components that have been shipped and have later been identified as not conforming to the applicable technical data or standard;

o. Procedure for recall control to ensure that components and materials shipped can be traced and recalled if necessary;

p. Procedure for monitoring the effectiveness of the quality system.

2) Suppliers certified to officially recognised standards that have a quality system that includes the elements specified in 1) may be acceptable; such standards include:

a. EN/AS9120 and listed in the OASIS database;

b. ASA-100;

c. EASO 2012;

d. FAA AC00-56.

The use of such suppliers does not exempt the organisation from its obligations under 145.A.42 to ensure that supplied components and material are in satisfactory condition and meet the applicable criteria of 145.A.42(e).

GM 145.A.42 (b)

1. The EASA Form 1 identifies the airworthiness status of an aircraft component in relation to the work being certified. Block 12 'Remarks' on the EASA Form 1 in some cases contains vital airworthiness related information (see also Part-M Appendix II) which may need appropriate and necessary actions.

response Noted

Please see response to comment No 76.

Draft Opinion/Decision – ANNEX II; Section A – Technical and Organisation Requirements – AMC1 145.A.42(b) Acceptance of components

p. 72

comment 78

comment by: EASO

This conflicts with NPA 2012-03

AMC 145.A.42 (b) Acceptance of components

The EASA Form 1 or equivalent identifies the status of an aircraft component. Block 12 'Remarks' on the EASA Form 1 in some cases contains vital airworthiness related NPA 2012-03 12 Apr 2012

TE.RPRO.00034-002© European Aviation Safety Agency. All rights reserved.

Proprietary document. Copies are not controlled. Confirm revision status through the EASA-Internet/Intranet.

Page 18 of 33 information which may need appropriate and necessary actions. The receiving organisation should be satisfied that the component in question is in satisfactory condition and has been appropriately released to service. In addition, the organisation should ensure that the component meets the approved data/standard, such as the required design and modification standard. This may be accomplished by reference to the manufacturer's parts catalogue or other approved data (i.e. Service Bulletin). Care should also be taken in ensuring compliance with applicable airworthiness directives, the status of any life-limited parts fitted to the aircraft component as well as Critical Design Configuration Control Limitations.

The organisation should establish a procedure to determine the eligibility of a component before installation. Such procedure should specify how the organisation:

is satisfied that the component is in satisfactory condition and has been appropriately released, ensures compliance with the applicable Critical Design Configuration Control Limitations, ensures that the installation of the component is not prohibited by an Airworthiness Directive, and determines that the component meets the required modification status. This may be accomplished by reference to the manufacturer's parts catalogue or other approved data (i.e. Service Bulletin)

response Noted

Please see response to comment No 76.

comment 98

comment by: MTU Maintenance Hannover GmbH

<p>AMC1 145.A.42(b) 2</p>	<p>This paragraph does not fit together with 145.A.50(f) which allows the temporary use of components without an appropriate release certificate for up to 30 flight hours or until return to a main line station or main maintenance base.</p> <p>This paragraph would also require an EASA Form 1 to be issued when splitting multiple item certificates into single items for storage as company internal certificates are not covered in paragraph 1(a) to (e), equivalents to EASA Form 1.</p> <p>This paragraph also does not meet the standards specified in 145.A.50(d) which allows the use of company internal release procedures (items may be installed directly after maintenance or go into storage before installation).</p>	<p>Delete paragraph.</p>
-----------------------------------	---	--------------------------

response

Partially accepted

The provisions of 145.A.42(a)(1) have been complemented with the text 'unless otherwise specified in Annex (Part-21) to Regulation (EU) No 748/2012 or in this Annex II (Part-145)', which makes this paragraph compatible with other provisions of Part-145 and Part-21 that allow installing components without an EASA Form 1 in specific cases.

comment

250 comment by: *Federation of Aerospace Enterprises in Ireland*

Paragraph does not take into consideration:
 145.A.50(f) for AOG aircraft which allows the temporary installation of components without an appropriate release certificate for up to 30 flight hours or until return to a main line station or main maintenance base.
 145.A.50(d) which allows the use of a defined company internal release procedure.
Proposed text/comment.
 Delete paragraph

response

Partially accepted.

The provisions of 145.A.42(a)(1) have been complemented with the text 'unless otherwise specified in Annex (Part-21) to Regulation (EU) No 748/2012 or in this Annex II (Part-145)', which makes this paragraph compatible with other provisions of Part-145 and Part-21 that allow installing components without an EASA Form 1 in specific cases.

comment

385 comment by: *ASD MRO Working Group*

AMC1 145.A.42(b)2 - This paragraph does not fit together with 145.A.50(f) which allows the temporary use of components without an appropriate release certificate for up to 30 flight hours or until return to a main line station or main maintenance base.

Suggested revised wording as follows:
 "Any item in storage without an EASA Form 1 or equivalent cannot be installed on aircraft registered in a Member State unless an EASA Form 1 is issued for such item by an appropriately approved maintenance organisation in accordance with AMC2 145.A.50(d), except where differently specified in this Regulation."

This addition should allow the possibility of Company internal release and the temporary installation of a component, without an EASA Form 1 (145.A.50(f)), which is limited to AOG situations.

response Partially accepted

Text has been amended although not as proposed by the commentator.

The provisions of 145.A.42(a)(1) have been complemented with the text 'unless otherwise specified in Annex (Part-21) to Regulation (EU) No 748/2012 or in this Annex II (Part-145)', which makes this paragraph compatible with other provisions of Part-145 and Part-21 that allow installing components without an EASA Form 1 in specific cases.

comment 636 comment by: Pratt & Whitney

AMC1 145.A.42(b) 2	There is an apparent conflict with 145.A.50(f) which allows the temporary use of components without an appropriate release certificate for up to 30 flight hours or until return to a main line station or main maintenance base. This paragraph seems to conflict with 145.A.50(d) that allows internal marshalling and storage without issuing Form 1s. Further, internal inventory control documents are not recognized by as being equivalent to an EASA Form 1, which they should be for internal use.	Delete paragraph.
--------------------------	--	-------------------

response Partially accepted

The provisions of 145.A.42(a)(1) have been complemented with the text 'unless otherwise specified in Annex (Part-21) to Regulation (EU) No 748/2012 or in this Annex II (Part-145)', which makes this paragraph compatible with other provisions of Part-145 and Part-21 that allow installing components without an EASA Form 1 in specific cases.

comment 659 comment by: Aeronautical Repair Station Association (ARSA)

Paragraph (2) should be deleted from this section as it conflicts with 145.A.50(d) and equivalents to EASA Form 1.

response Partially accepted

The provisions of 145.A.42(a)(1) have been completed with the text 'unless otherwise specified in Annex (Part-21) to Regulation (EU) No 748/2012 or in this Annex II (Part-145)', which makes this paragraph compatible with other provisions of Part-145 and Part-21 that allow installing components without an EASA Form 1 in specific cases.

Draft Opinion/Decision – ANNEX II; Section A – Technical and Organisation Requirements – AMC1 145.A.42(c) Acceptance of components p. 72

comment 79 comment by: EASO

	Re-numbering only not changed in NPA 2012-03
response	Noted Please see response to comment No 76.

Draft Opinion/Decision – ANNEX II; Section A – Technical and Organisation Requirements – AMC1 145.A.42(d) Acceptance of components	p. 72
---	-------

comment	80	comment by: EASO
	Deletions made made. Not changed in NPA2012-03	
response	Noted Please see response to comment No 76.	

comment	336	comment by: MTU Aero Engines AG
	AMC1 145.A.42(b) 2	
	Comment	
	This paragraph is in conflict with:	
	<ul style="list-style-type: none"> • 145.A.50 (f) which allows the temporary use of components without an appropriate release certificate for up to 30 flight hours or until return to a main line station or main maintenance base. • 145.A.50 (d) which allows the use of company internal release procedures for items which may be installed directly after maintenance or go into storage before installation). 	
	Proposed change	
	Make clear that this new clause does not affect the options given in 145.A.50 (d) and (f).	
response	Accepted. The provisions of 145.A.42(a)(1) have been complemented with the text 'unless otherwise specified in Annex (Part-21) to Regulation (EU) No 748/2012 or in this Annex II (Part-145)', which makes this paragraph compatible with other provisions of Part-145 and Part-21 that allow installing components without an EASA Form 1 in specific cases.	

Draft Opinion/Decision – ANNEX II; Section A – Technical and Organisation Requirements – AMC 145.A.42(d) Acceptance of components	p. 72-73
--	----------

comment	81	comment by: EASO
	This would re-number para AMC 145.1.42(e) of NPA 2012-03	
response	Noted. Please see response to comment No 76.	

Draft Opinion/Decision – ANNEX II; Section A – Technical and Organisation Requirements – AMC1 145.A.42(g) Acceptance of components – STANDARD PARTS

p. 73

comment	44	comment by: <i>Didier FOUCHE Sabena technics</i>
	Page 73: Why is their no AMC 1 145.A.42 (e) & (f)?	
response	Noted Numbering will be reviewed.	
comment	82	comment by: <i>EASO</i>
	Not changed in NPA 2012-03 but will now need to be considered.	
response	Noted Please see response to comment No 76.	
comment	316	comment by: <i>LHT</i>
	Remove the headline "STANDARD PARTS"; obsolete since whole paragraph is only about Standard Parts	
response	Not accepted The headline serves to identify that it only affects standard parts.	
comment	441	comment by: <i>Modification and Replacement Parts Association</i>
	<p>Provision (c) states that a Form 1 is "not normally issued" and therefore should not be expected. In certain cases, parties have become confused as to whether a Form 1 or equivalent was required or allowed under the regulations. Although these manufacturer-specified standards parts from European Type Designs are not eligible for an EASA Form 1, the bilateral agreement between the United States and EU requires that such parts be accompanied by a Form 1. This requirement is found in the Technical Implementation Procedures (TIP) to the BASA.</p> <p>Although subparagraph (c) takes steps to address the confusion regarding whether a Form 1 is required for Standard Parts the language should be made clear to explain that standard parts do not require a Form 1, however a Form 1 may be issued to satisfy the requirement under the US-EU BASA TIP.</p> <p>Subparagraph (a) states that a TC holder may make reference to a national or international specification "not being an aviation only specification for the particular part." The inclusion of this language is confusing because it appears to precluded the reference by a TC holder to an aviation only standard, for instance the commonly referenced AIA National Aerospace Standards. The AIA NAS is a commonly referenced standard in Type Designs and is a widely accepted specification for Standard Parts.</p> <p>We recommend deleting the phrase "not being an aviation only specification for the particular part" from subparagraph (a) to make clear that reference to aviation-only specifications such as AIA NAS is permissible.</p>	

response Partially accepted

First paragraph: not accepted.

The text of the TIP (p. 77) does not mandate an EASA Form 1 or an FAA8130-3 for the standard parts. It says:

5.1.8 New Modification, Replacement, and Standard Parts.

(c) The AA shall accept standard parts exported from the U.S. when accompanied by an FAA Form 8130-3 signed on the left side, if the standard part is eligible for the FAA Form 8130-3. All other standard parts shall be accepted when accompanied by a manufacturer's Certificate of Conformity verifying the part's compliance to an officially recognized standard, e.g. a U.S. industry, U.S. government or international specification.

Second paragraph: accepted.

Text has been deleted.

comment 525 comment by: ASA

Provision (c) states that a Form 1 is "not normally issued" and therefore should not be expected. In certain cases, parties have become confused as to whether a Form 1 or equivalent was required or allowed under the regulations. Although these manufacturer-specified standards parts from European Type Designs are not eligible for an EASA Form 1, the bilateral agreement between the United States and EU requires that such parts be accompanied by a Form 1. This requirement is found in the Technical Implementation Procedures (TIP) to the BASA.

Although subparagraph (c) takes steps to address the confusion regarding whether a Form 1 is required for Standard Parts the language should be made clear to explain that standard parts do not require a Form 1, however a Form 1 may be issued to satisfy the requirement under the US-EU BASA TIP.

Subparagraph (a) states that a TC holder may make reference to a national or international specification "not being an aviation only specification for the particular part." The inclusion of this language is confusing because it appears to precluded the reference by a TC holder to an aviation only standard, for instance the commonly referenced AIA National Aerospace Standards. The AIA NAS is a commonly referenced standard in Type Designs and is a widely accepted specification for Standard Parts.

We recommend deleting the phrase "not being an aviation only specification for the particular part" from subparagraph (a) to make clear that reference to aviation-only specifications such as AIA NAS is permissible.

response Your comment duplicates comment No 441.
Please see response to comment No 441.

comment 583 comment by: AEA

Remove the headline "STANDARD PARTS"; obsolete since whole paragraph is only about Standard Parts

response Not accepted

The headline serves to identify that it only affects standard parts.

Draft Opinion/Decision – ANNEX II; Section A – Technical and Organisation Requirements – GM1 145.A.42(g) Acceptance of components p. 73-74

comment 22 comment by: *J. Thiele*

Something regarding PMA parts should be added.

response Not accepted

Acceptance of PMA parts is described in TIP.

comment 83 comment by: *EASO*

Not changed in NPA 2012-03 but will now have to be considered

response Noted

Please see response to comment No 76.

Draft Opinion/Decision – ANNEX II; Section A – Technical and Organisation Requirements – AMC1 145.A.42(h) Acceptance of components p. 74

comment 84 comment by: *EASO*

Not changed by NPA 2012-03 but will now have to be considered

response Noted

Please see response to comment 76.

comment 138 comment by: *FAA*

145.A.43 This has the possibility of being a special condition FAA does not control unserviceable parts.

response Noted

145.A.43 has been deleted. Segregation and control of unserviceable components is dealt with in 145.A.42(c) and its associated AMC/GM.

comment 493 comment by: *Rolls-Royce plc (ZM)*

Comment Summary

This AMC states: "Items purchased in batches (fasteners, etc.) should be supplied in a package. The packaging should state the applicable specification/standard, P/N, batch number, and the quantity of the items. The documentation accompanying the material should contain the applicable specification/standard, P/N, batch number, supplied quantity, and the manufacturing sources. If the material is acquired from different batches, acceptance documentation for each batch should be supplied". It is not clear how this is an acceptable means of

compliance for the maintenance organisation. Should this be guidance material to support the organisation in developing acceptance standards for supplied small components?

Suggested Resolution

Delete the reference to the safety manager.

response Accepted

This paragraph has been transferred to GM M.A. 501 and GM1 145.A.42(b)(1) 'Incoming physical inspection'.

Draft Opinion/Decision – ANNEX II; Section A – Technical and Organisation Requirements – GM1 145.A.42(h) Acceptance of components

p. 74

comment 85 comment by: EASO

Not changed in NPA2012-03 but will now have to be considered.

response Noted

Please see response to comment No 76.

Draft Opinion/Decision – ANNEX II; Section A – Technical and Organisation Requirements – 145.A.43 Control of unserviceable components

p. 74-75

comment 86 comment by: EASO

Not changed by NPA 2012-03 but will now have to be considered

response Noted

Please see response to comment No 76.

comment 99 comment by: MTU Maintenance Hannover GmbH

145.A.43 (a)(5)	The words incident and accident are used in various places throughout the regulation, each time with a different connotation. An official definition of incident and accident with regard to the control of unserviceable components is required in order to differentiate between incidents and accidents during flight and incidents/accidents during maintenance or other scenarios.	Definitions of incident and accident are required.
-----------------	---	--

response Partially accepted

Text has been reworded to read 'being installed on an aircraft involved in an incident or accident likely to affect its serviceability'.

Aircraft incident or accident is defined in Regulation (EU) No 996/2010 of the European Parliament and of the Council of 20 October 2010 on the investigation and prevention of accidents and incidents in civil aviation and repealing Directive 94/56/EC (OJ L 295, 12.11.2010, p. 35).

comment	216	comment by: <i>EUROPEAN AVIATION QUALITY GROUP (EAQG)</i>
	<p>NPA Reference: 145.A.43 Control of unserviceable components</p> <p>Comment: Despite the title is "Control of unserviceable components", this paragraph deals, under the points (a) and (b), with unserviceable components and under the point (c) with unsalvageable components.</p> <p>Propose Change to text: 145.A.43 title to be reviewed accordingly</p>	
response	<p>Partially accepted</p> <p>145.A.43 has been deleted. Segregation and control of unserviceable components and unsalvageable is dealt with in 145.A.42(c) and its associated AMC/GM.</p>	
comment	251	comment by: <i>Federation of Aerospace Enterprises in Ireland</i>
	<p>145.A.43(a)(5) Proposed text/comment. Definitions required or referral out to definition in other EASA Regulation.</p>	
response	<p>Partially accepted</p> <p>Text has been reworded to read 'being installed on an aircraft involved in an incident or accident likely to affect its serviceability'.</p> <p>Aircraft incident or accident is defined in Regulation (EU) No 996/2010 of the European Parliament and of the Council of 20 October 2010 on the investigation and prevention of accidents and incidents in civil aviation and repealing Directive 94/56/EC (OJ L 295, 12.11.2010, p. 35).</p>	
comment	300	comment by: <i>Finnish Transport Safety Agency</i>
	<p>Proposed text does not take possible operators pooling agreements into account. Components are nowadays often pooled and decision for further action is not made by a maintenance organisation removing them but by the pooling organisation. Time schedule to return pooled components without extra cost is also very tight and does not allow to store them.</p> <p>We propose next insertion (in <i>italic</i>): Unserviceable components shall be identified. <i>Unless otherwise defined by the operator in the maintenance contract</i>, unserviceable components shall be stored in a secure location ...</p>	
response	<p>Not accepted</p> <p>The maintenance organisation may transfer the unserviceable component to the owner when required by the owner, but whenever the unserviceable component is under the control of the Part-145 organisation then it has to be identified and stored in a secure location.</p>	
comment	317	comment by: <i>LHT</i>
	<p>145.A.43 (a)(1) This requirement should be removed from here. Reasons: A maintenance organization does not necessarily have knowledge or</p>	

	access to "maintenance programmes" (which operator ones?). A part maybe "overdue" or not, depending on the individual maintenance programme, which is under the control of a CAMO. So this is a question of "installability" or "eligibility for installation" and not a question of "serviceability" in an absolute sense. In extreme this may work for "LLPs", Life Limited Parts in case the AMO has knowledge of the life history (not necessarily required if the AMO is not intending to install the part rather than return it after maintenance to the customer). But absolute Life Limits are not primarily defined in a Maintenance Programme but in certification data (ALS). Both cases should be treated with under 145.A.42(e).
response	Partially accepted The text has been transferred to GM 145.A.42(a)(2) and has been reworded too.
comment	318 comment by: LHT 145.A.43 (a)(2): This sentence should be removed from the Regulation. Reason: It is not the responsibility of a Part-145 AMO to check compliance with ADs or other continuing airworthiness requirements when maintaining a part. That is the task of a CAMO. The AMO will only perform work/inspections (including those based on ADs etc.) ordered by the CAMO in compliance with maintenance data. This is again a question of "eligibility for installation" and should be treated with under 145.A.42(c).
response	Partially accepted The text has been transferred to GM 145.A.42(a)(2) and has been reworded too.
comment	319 comment by: LHT 145.A.43 (a)(5): This sentence should be removed since superfluous. Reason: Either it is certified with a Form 1 or equivalent which renders it serviceable even if involved in a prior incident or accident (definition is where?) or is has no Release to Service Certificate which renders it unserviceable anyway. If, in the latter case, an accident or incident had happened, specific inspections/maintenance tasks may apply anyway. For that regulatory requirements are already existing (AMC No 2 to 145.A.50(d) Certification of maintenance, point 2.9)
response	Partially accepted The text has been transferred to GM 145.A.42(a)(2) and has been reworded too. If the component is removed from an aircraft involved in an incident or accident, then AMC No 2 to 145.A.50(d) should apply. Nevertheless, the statement made by the commentator is not right. A component accompanied by an EASA Form 1 does not necessarily mean that the component is serviceable. Please review AMC No 1 to 145.A.50(d).
comment	320 comment by: LHT 145.A.43 (b): The last (second) sentence should not be limited to non-commercial/non-large

	aircraft. Reasons: (1) This interferes with the property rights of the part owners. This constitutional rights are not limited to specific group of aircraft parts owners. (2) There is neither a justification nor a logical reason based on safety why an unserviceable part is "less dangerous" when in the hands of a private owner (Annex II aircraft) than controlled by a Part-145 or CAMO. One could rather assume the opposite
response	Accepted Text has been deleted.
comment	321 comment by: LHT 145.A.43 (c): Add "(3) or return it to the part owner" (see comment to 145.A.43(b))
response	Partially accepted Text has been amended although not as proposed by the commentator.
comment	337 comment by: MTU Aero Engines AG 145.A.43 (a)(5) Comment The words incident and accident are used in different clauses of the regulation, but neither this regulation nor the basic regulation 216/2008 or 748/2012 include definitions. Proposed change Add definitions of incident and accident.
response	Partially accepted Text has been reworded to read 'being installed on an aircraft involved in an incident or accident likely to affect its serviceability'. Aircraft incident or accident is defined in Regulation (EU) No 996/2010 of the European Parliament and of the Council of 20 October 2010 on the investigation and prevention of accidents and incidents in civil aviation and repealing Directive 94/56/EC (OJ L 295, 12.11.2010, p. 35).
comment	389 comment by: ASD MRO Working Group 145.A.43(a)(5) - The words incident and accident are used in various places throughout the regulation, each time with a different connotation. An official definition of incident and accident with regard to the control of unserviceable components is required in order to differentiate between incidents and accidents during flight and incidents/accidents during maintenance or other scenarios.
response	Partially accepted Text has been reworded to read 'being installed on an aircraft involved in an incident or accident likely to affect its serviceability'. Aircraft incident or accident is defined in Regulation (EU) No 996/2010 of the European Parliament and of the Council of 20 October 2010 on the investigation and prevention of accidents and incidents in civil aviation and repealing Directive 94/56/EC (OJ L 295, 12.11.2010, p. 35).

comment	<p>442 comment by: <i>Modification and Replacement Parts Association</i></p> <p>Provision (a) addresses “unserviceable” components, however the term appears to refer to components that are not currently airworthy rather than components that cannot be made to be airworthy (which appears to be described as “unsalvageable”).</p> <p>This is likely to cause confusion. The root-word “serviceable” in this case appears to mean “fit for service on an aircraft.” However, the word also can be interpreted as meaning “able to be repaired.”</p> <p>The provisions should be clarified to explain the difference between an unserviceable and unsalvageable parts. In the case of a part that can be made airworthy, the term unserviceable appears inappropriate. We suggest a term such as “not airworthy” or similar to describe all parts other than those deemed unsalvageable.</p> <p>AMC1 145.A.43(c) appears to contemplate this distinction by describing components to be classified as “unsalvageable” and includes components that cannot be returned to an airworthy condition.</p>
response	<p>Partially accepted</p> <p>145.A.43 has been deleted. Segregation and control of unserviceable components and unsalvageable is dealt with in 145.A.42(c) and its associated AMC/GM.</p>
comment	<p>526 comment by: <i>ASA</i></p> <p>Provision (a) addresses “unserviceable” components, however the term appears to refer to components that are not currently airworthy rather than components that cannot be made to be airworthy (which appears to be described as “unsalvageable”).</p> <p>This is likely to cause confusion. The root-word “serviceable” in this case appears to mean “fit for service on an aircraft.” However, the word also can be interpreted as meaning “able to be repaired.”</p> <p>The provisions should be clarified to explain the difference between an unserviceable and unsalvageable parts. In the case of a part that can be made airworthy, the term unserviceable appears inappropriate. The Aviation Suppliers Association suggests a term such as “not airworthy” or similar to describe all parts other than those deemed unsalvageable.</p> <p>Additionally, AMC1 145.A.43(c) appears to contemplate this distinction by describing components to be classified as “unsalvageable” and includes components that cannot be returned to an airworthy condition.</p>
response	<p>Partially accepted</p> <p>145.A.43 has been deleted. Segregation and control of unserviceable components and unsalvageable is dealt with in 145.A.42(c) and its associated AMC/GM.</p>
comment	<p>584 comment by: <i>AEA</i></p> <p>145.A.43 (a)(1)</p> <p>This requirement should be removed from here.</p> <p>Reasons: A maintenance organization does not necessarily have knowledge or access to “maintenance programmes” (which operator ones?). A part maybe</p>

“overdue” or not, depending on the individual maintenance programme, which is under the control of a CAMO. So this is a question of “installability” or “eligibility for installation” and not a question of “serviceability” in an absolute sense. In extreme this may work for “LLPs”, Life Limited Parts in case the AMO has knowledge of the life history (not necessarily required if the AMO is not intending to install the part rather than return it after maintenance to the customer). But absolute Life Limits are not primarily defined in a Maintenance Programme but in certification data (ALS). Both cases should be treated with under 145.A.42(e).

145.A.43 (a)(2):

This sentence should be removed from the Regulation.

Reason: It is not the responsibility of a Part-145 AMO to check compliance with ADs or other continuing airworthiness requirements when maintaining a part. That is the task of a CAMO. The AMO will only perform work/inspections (including those based on ADs etc.) ordered by the CAMO in compliance with maintenance data. This is again a question of “eligibility for installation” and should be treated with under 145.A.42(c).

145.A.43 (a)(5):

This sentence should be removed since superfluous.

Reason: Either it is certified with a Form 1 or equivalent which renders it serviceable even if involved in a prior incident or accident (definition is where?) or is has no Release to Service Certificate which renders it unserviceable anyway. If, in the latter case, an accident or incident had happened, specific inspections/maintenance tasks may apply anyway. For that regulatory requirements are already existing (AMC No 2 to 145.A.50(d) Certification of maintenance, point 2.9)

145.A.43 (b):

The last (second) sentence should not be limited to noncommercial/non-large aircraft. Reasons: (1) This interferes with the property rights of the part owners. This constitutional rights are not limited to specific group of aircraft parts owners. (2) There is neither a justification nor a logical reason based on safety why an unserviceable part is “less dangerous” when in the hands of a private owner (Annex II aircraft) than controlled by a Part-145 or CAMO. One could rather assume the opposite

145.A.43 (c):

Add “(3) or return it to the part owner” (see comment to 145.A.43(b))

response

Partially accepted

This comment duplicates comments Nos 317, 318, 319, 320, 321. Please see responses to comments Nos 317, 318, 319, 320, 321.

comment

638

comment by: Pratt & Whitney

145.A.43 (a)(5)	An official definition of incident and accident are needed for specificity in unserviceable components. Also here, component includes a part. Definitions are needed.	Definitions of incident and accident are required.
-----------------	---	--

response

Partially accepted

Text has been reworded to read `being installed on an aircraft involved in an

incident or accident likely to affect its serviceability’.

Aircraft incident or accident is defined in Regulation (EU) No 996/2010 of the European Parliament and of the Council of 20 October 2010 on the investigation and prevention of accidents and incidents in civil aviation and repealing Directive 94/56/EC (OJ L 295, 12.11.2010, p. 35).

Draft Opinion/Decision – ANNEX II; Section A – Technical and Organisation Requirements – AMC1 145.A.43(b) Control of unserviceable components

p. 75

comment	87	comment by: EASO
	Not changed by NPA 2012-03 but will now have to be considered	
response	Noted	
	Please see response to comment No 76.	

Draft Opinion/Decision – ANNEX II; Section A – Technical and Organisation Requirements – AMC1 145.A.43(c) Control of unserviceable components

p. 75-76

comment	88	comment by: EASO
	Not changed by NPA 2012-03 but will now have to be considered	
response	Noted	
	Please see response to comment No 76.	
comment	217	comment by: EUROPEAN AVIATION QUALITY GROUP (EAQG)
	NPA Reference: AMC1 145.A.43(c) Comment: Current title is "Control of unserviceable components". It should be "Control of unsalvageable components Proposed Change to Text: Change the title to: "Control of unsalvageable components"	
response	Partially accepted	
	145.A.43 has been deleted. Segregation and control of unserviceable components and unsalvageable is dealt with in 145.A.42(c) and its associated AMC/GM.	
comment	322	comment by: LHT
	145.A.43(c)1.(g): Although not changed in its contents by this NPA this sentence should be removed in its entirety. Reason: This sentence implies that either maintenance records or traceability to the manufacturer are always a requirement. That is not the case for the majority of (used) parts. A used part without any maintenance record may be very well regaining its "serviceability" status when undergone appropriate maintenance	

(e.g. inspection, overhaul). The traceability to the manufacturer is a question of missing parts marking and does not necessarily render a part "unsalvageable" if the parts can be identified sufficiently.

response Partially accepted

145.A.43 has been deleted. Segregation and control of unserviceable components and unsalvageable is dealt with in 145.A.42(c) and its associated AMC/GM.

comment 585 comment by: AEA

145.A.43(c)1.(g):
Although not changed in its contents by this NPA this sentence should be removed in its entirety.
Reason: This sentence implies that either maintenance records or traceability to the manufacturer are always a requirement. That is not the case for the majority of (used) parts. A used part without any maintenance record may be very well regaining its "serviceability" status when undergone appropriate maintenance (e.g. inspection, overhaul). The traceability to the manufacturer is a question of missing parts marking and does not necessarily render a part "unsalvageable" if the parts can be identified sufficiently.

response Partially accepted

145.A.43 has been deleted. Segregation and control of unserviceable components and unsalvageable is dealt with in 145.A.42(c) and its associated AMC/GM.

comment 639 comment by: Pratt & Whitney

AMC1 145.A.43(c) (2)(d)	Again, the term component causes a problem. For "accessory components", reporting the mutilation to the OEM may make sense but if it is a part, reporting to the OEM has no value, unless the part is a critical life limited part that must be tracked. Further, the AMO does not have the property right to mutilate a part as the AMO does not own it.	Be more specific as to what "components" must be reported.
-------------------------------	---	--

response Partially accepted

GM 145.A.42(c)(2), point (d) has been deleted. AMC 145.A.42(c), point (c) has been reworded to allow for disposing of components for non-aviation use without mutilation.

comment 640 comment by: Pratt & Whitney

response Noted

No comment provided.

comment	89	comment by: EASO		
	Not changed by NPA 2012-03 but will now have to be considered			
response	Noted Please see response to comment No 76.			
comment	100	comment by: MTU Maintenance Hannover GmbH		
	<table border="1"> <tr> <td>AMC1 145.A.43(c) 2.(d)</td> <td>Mutilation of components may be carried out by non-EASA or competent authority regulated entities (e.g. by contract to the Part-145 organisation).</td> <td>Change to read: ... the organisation responsible for ensuring the mutilation of a component.....</td> </tr> </table>	AMC1 145.A.43(c) 2.(d)	Mutilation of components may be carried out by non-EASA or competent authority regulated entities (e.g. by contract to the Part-145 organisation).	Change to read: ... the organisation responsible for ensuring the mutilation of a component.....
AMC1 145.A.43(c) 2.(d)	Mutilation of components may be carried out by non-EASA or competent authority regulated entities (e.g. by contract to the Part-145 organisation).	Change to read: ... the organisation responsible for ensuring the mutilation of a component.....		
response	Not accepted The text says 'arrange for the component to be mutilated'; this implies that it is not necessary for the Part-145 organisation to mutilate the component itself, some other organisation may do it provided that the Part-145 organisation has established an arrangement with this organisation.			
comment	218	comment by: EUROPEAN AVIATION QUALITY GROUP (EAQG)		
	NPA Reference: AMC1 145.A.43(c)(2) Comment: Current title is "Control of unserviceable components". It should be "Control of unsalvageable components" Proposed Change to Text: Change the title to: "Control of unsalvageable components"			
response	Partially accepted 145.A.43 has been deleted. Segregation and control of unserviceable components and unsalvageable is dealt with in 145.A.42(c) and its associated AMC/GM.			
comment	252	comment by: Federation of Aerospace Enterprises in Ireland		
	AMC1 145.A.43(c)2.(d) Proposed text/comment. ... the organisation responsible for ensuring the mutilation of a component.....			
response	Partially accepted Text has been amended although not as proposed by the commentator.			
comment	443	comment by: Modification and Replacement Parts Association		
	Provision (d) appears to include an overly burdensome and potentially unworkable requirement. It would require that an organization that mutilates or destroys a component provide the manufacturer with the data plate or serial number and disposition of the component. This appears to be an overly burdensome record keeping requirement, particularly			

for organizations that may be destroying large quantities of components as part of their business model. Such organizations may not have the ability to document each serialized item that is slated for mutilation or other form of disposition. The requirement may also be impracticable in situations in which the original manufacturer has gone out of business. This creates a record-keeping double standard for documentation of end-of-life components. We suggest that this notification to manufacturer requirement be deleted.

response Accepted
Text has been deleted.

comment 495 comment by: *Rolls-Royce plc (ZM)*

Comment Summary
This AMC refers to 'sawing' of components. Surely other forms of product dismemberment are allowable eg flame-cutting. Please ensure that AMC material is not prescriptive to methods, but address the principles to be used.
Suggested Resolution
Reword AMC to avoid limiting methods of mutilation

response Noted
The text has been converted into GM.

comment 527 comment by: *ASA*

Provision (d) appears to include an overly burdensome and potentially unworkable requirement. It would require that an organization that mutilates or destroys a component provide the manufacturer with the data plate or serial number and disposition of the component.

This appears to be an overly burdensome record keeping requirement, particularly for organizations that may be destroying large quantities of components as part of their business model. Such organizations may not have the ability to document each serialized item that is slated for mutilation or other form of disposition.

The requirement may also be impracticable in situations in which the original manufacturer has gone out of business. This creates a record-keeping double standard for documentation of end-of-life components.

ASA suggests that this notification to manufacturer requirement be deleted.

response The comment duplicates comment No 443. Please refer to response to comment No 443.

Draft Opinion/Decision – ANNEX II; Section A – Technical and Organisation Requirements – AMC1 145.A.43(d) Control of unserviceable components

p. 77

comment 90 comment by: *EASO*
Not changed by NPA 2012-03 but will now have to be considered

response Noted

Please see response to comment No 76.

comment 101 comment by: *MTU Maintenance Hannover GmbH*

AMC1 145.A.43(d) NOTE	There is no list available of persons or organisations that are known to return unsalvageable components back into the aviation supply system. Parts dealers are not regulated entities. As such the note cannot be complied with.	Delete note.
-----------------------------	--	--------------

response Accepted
Text has been deleted.

comment 219 comment by: *EUROPEAN AVIATION QUALITY GROUP (EAQG)*

NPA Reference:
AMC1 145.A.43(d)
Comment:
Current title is "Control of unserviceable components". It should be "Control of unsalvageable components"
Proposed Change to Text:
Change the title to: "Control of unsalvageable components"

response Partially accepted
145.A.43 has been deleted. Segregation and control of unserviceable components and unsalvageable is dealt with in 145.A.42(c) and its associated AMC/GM.

comment 253 comment by: *Federation of Aerospace Enterprises in Ireland*

Note
There is no list available of persons or organisations that are known to return unsalvageable components back into the aviation supply system
Proposed text/comment.
Delete note

response Accepted
Text has been deleted.

comment 323 comment by: *LHT*

Delete NOTE.
Reason: The AMO will not pass unsalvageable parts to anybody else other than foreseen in this regulation/AMC. The "... organisation that is known to return unsalvageable components back into the aviation supply system ..." is not defined anywhere. However, it should be noted that aircraft parts, serviceable or not, are neither "illegal drugs" nor "regulated substances". Therefore the note should not appear here. It will not have any legislative effect on "non-regulated" entities. See also comment to 145.A.43(b) ("ownership of parts").

response Accepted

Text has been deleted.

comment 392 comment by: ASD MRO Working Group
 AMC1 145.A.43(d) - "Note" should be deleted as there is no published list of persons or organisations that are known to return unsalvageable components back into the aviation supply system.

response Accepted
 Text has been deleted.

comment 466 comment by: AIR FRANCE
 AFR Comments : The AMC1 145.A.43(d) title seems inappropriated based on the description of paragraph. We suggest to replace "unserviceable" by "unsalvageable".

response Partially accepted
 145.A.43 has been deleted. Segregation and control of unserviceable components and unsalvageable is dealt with in 145.A.42(c) and its associated AMC/GM.

comment 586 comment by: AEA
 Delete NOTE.
 Reason: The AMO will not pass unsalvageable parts to anybody else other than foreseen in this regulation/AMC.
 The "... organisation that is known to return unsalvageable components back into the aviation supply system ..." is not defined anywhere. However, it should be noted that aircraft parts, serviceable or not, are neither "illegal drugs" nor "regulated substances". Therefore the note should not appear here. It will not have any legislative effect on "non-regulated" entities. See also comment to 145.A.43(b) ("ownership of parts").

response Accepted
 Text has been deleted.

comment 641 comment by: Pratt & Whitney

AMC1 145.A.43(d) NOTE	Unless EASA intends to publish and update a list of "persons or organisations that are known to return unsalvageable components back into the aviation supply system" this note is unenforceable as a regulation.	Delete note.
-----------------------------	---	--------------

response Accepted
 Text has been deleted.

comment	660	comment by: <i>Aeronautical Repair Station Association (ARSA)</i>
	The note regarding unsalvageable components should be deleted as there is no measure or indication of persons or organizations "known to return unsalvageable components back into the aviation supply system."	
response	Accepted Text has been deleted.	

Draft Opinion/Decision – ANNEX II; Section A – Technical and Organisation Requirements – AMC1 145.A.45(d) Maintenance data

p. 77

comment	45	comment by: <i>Didier FOUCHE Sabena technics</i>
	Page 77 AMC1 145.A.43(d): What does mean "... is known to return ..."?? What are the criterias??? Do you have a black list??	
response	Accepted Text has been deleted.	

6. Draft changes to the Articles of Commission Regulation (EC) 2042/2003 and introduction of GM to Articles to Commission Regulation 2042/2003

Article 3(2) is amended and GM to Article 3(2) is added. The resulting text for Article 3(2) and GM to Article 3(3) is as follows:

Article 3

- (2) Organisations and personnel involved in the continuing airworthiness of aircraft and components, including maintenance, shall comply with the applicable provisions of Annex I and, where appropriate, those specified in Articles 4 and 5.

GM to Article 3(2) of the Cover Regulation

The provisions of Part-M applicable also to Part-145 organisations are contained in the following points:

M.A.402 Performance of maintenance

M.A.403 Aircraft defects

M.A.502 Component Maintenance

In addition, Part-145 refers to the following Appendixes of Part-M:

Appendix II to Part-M

Appendix IV to Part-M

Appendix IX to AMC M.A.602 and AMC M.A.702 EASA Form 2

Appendix X to AMC M.B.602(a) and AMC M.B.702(a)

7. Draft changes to Part-M & AMC/GM to Part-M and to Part-145 & AMC/GM to Part-145

7.1. Changes to Part-M and AMC/GM to Part-M

7.1.1 Changes to the table of contents of Part-M

In the table of contents of the section A, Subpart E is amended. The resulting text for section A Subpart E is as follows:

SUBPART E — COMPONENTS

M.A.501 Classification and installation

M.A.502 Component maintenance

M.A.503 Service life limited components

M.A.504 Segregation of components

7.1.2 The following changes are made to M.A.501 and associated AMC/GM

- Existing M.A.501 is amended;
- Existing AMC M.A.501 (a), AMC M.A.501 (b), AMC M.A.501(c), AMC M.A.501 (d) are replaced by AMC M.A.501 (a)(1), AMC M.A.501 (a)(3), AMC1 M.A.501 (a) (4), AMC2 M.A.501 (a)(4), AMC M.A.501 (a) (5), AMC M.A.501 (b), AMC M.A.501(c), AMC M.A.501 (d);
- New GM M.A.501 (a)(5), GM1 M.A.501 (b), GM2 M.A.501 (b) are added.

The resulting text for M.A.501 and its associated AMC/GM is as follows:

M.A.501 Classification and installation

- (a) All components shall be classified into the following categories:
- (1) Components which are in a satisfactory condition, released on an EASA Form 1 or equivalent and marked in accordance with Subpart Q of the Annex (Part-21) to Regulation (EU) No 748/2012, unless otherwise specified in Annex (Part-21) to Regulation (EU) No 748/2012 or in this Annex I (Part-M).
 - (2) Unserviceable components which shall be maintained in accordance with this Regulation.
 - (3) Components categorised as unsalvageable because they have reached their certified life limit or contain a non-repairable defect.
 - (4) Standard parts used on an aircraft, engine, propeller or other aircraft component when specified in the maintenance data and accompanied by evidence of conformity traceable to the applicable standard.
 - (5) Material both raw and consumable used in the course of maintenance when the organisation is satisfied that the material meets the required specification and has appropriate traceability. All materials must be accompanied by documentation clearly relating to the particular material and containing a conformity to specification statement plus both the manufacturing and supplier source.
- (b) Components, standard parts and material shall only be installed on an aircraft or a component when they are in a satisfactory condition, meet the applicable requirements of point (a), and the applicable maintenance data specifies the particular component, standard part or material.

AMC M.A.501(a)(1) Classification and installation

EASA FORM 1 OR EQUIVALENT

- (a) A document equivalent to an EASA Form 1 may be:
- (1) a release document issued by an organisation under the terms of a bilateral agreement signed by the European Union;
 - (2) a release document issued by an organisation approved under the terms of a JAA bilateral agreement until superseded by the corresponding agreement signed by the European Union;
 - (3) a JAA Form One issued prior to 28 November 2004 by a JAR 145 organisation approved by a JAA Full Member State;
 - (4) in the case of new aircraft components that were released from manufacturing prior to the Part-21 compliance date, the component should be accompanied by a JAA Form One issued by a JAR 21 organisation and approved by a JAA Full Member State within

the JAA mutual recognition system;

- (5) a JAA Form One issued prior to 28 September 2005 by a production organisation approved by a competent authority in accordance with its national regulations.
 - (6) a JAA Form One issued prior to 28 September 2008 by a maintenance organisation approved by a competent authority in accordance with its national regulations;
 - (7) a release document acceptable to a competent authority according to the provisions of a bilateral agreement between the competent authority and a third country until superseded by the corresponding agreement signed by the European Community. This provision is valid provided the above agreements between the competent authority and a third country are notified to the Commission and to the other competent authorities in accordance with Article 9 of Regulation (EC) No 1592/2002;
 - (8) a release document issued under the conditions described in Article 4, point 4 of Regulation (EC) No 2042/2003;
- (b) Any item in storage without an EASA Form 1 or equivalent cannot be installed on aircraft registered in a Member State unless an EASA Form 1 is issued for such item by an appropriately approved maintenance organisation in accordance with AMC M.A.613(a).

GM M.A.501(a)(2) Classification and installation

UNSERVICEABLE COMPONENTS

- (a) The person or organisation performing maintenance should ensure proper identification of any unserviceable components. The unserviceable status of the component should be clearly declared on a tag together with the component identification data and any information useful to define actions necessary to be taken. Such information should state, as applicable, in-service times, maintenance status, preservation status, failures, defects or malfunctions reported or detected exposure to adverse environmental conditions, and if the component was installed on an aircraft involved in an accident or incident. Means should be provided to prevent unintentional separation of this tag from the component.
- (b) Unserviceable components should typically undergo maintenance due to:
 - (1) expiry of the service life limit as defined in the aircraft maintenance programme;
 - (2) non-compliance with the applicable airworthiness directives and other continuing airworthiness requirements mandated by the Agency;
 - (3) absence of the necessary information to determine the airworthiness status or eligibility for installation;
 - (4) evidence of defects or malfunctions;
 - (5) being installed on an aircraft involved in an incident or accident likely to affect its serviceability.

AMC M.A.501(a)(3) Classification and installation

UNREPAIRABLE COMPONENTS

The following types of components should typically be classified as unrepairable:

- (a) components with non-repairable defects, whether visible or not to the naked eye;

- (b) components that do not meet design specifications, and cannot be brought in conformity with such specifications;
- (c) components subjected to unacceptable modification or rework that is irreversible;
- (d) certified life-limited parts that have reached or exceeded their certified life limits, or have missing or incomplete records;
- (e) components whose airworthy condition cannot be restored due to exposure to extreme forces, heat or adverse environmental conditions;
- (f) components for which conformity with an applicable airworthiness directive cannot be accomplished;
- (g) components for which maintenance records and/or traceability to the manufacturer cannot be retrieved.

AMC1 M.A.501(a)(4) Classification and installation

STANDARD PARTS

- (a) Standard parts are parts manufactured in complete compliance with an established industry, Agency, competent authority or other government specification which includes design, manufacturing, test and acceptance criteria, and uniform identification requirements. The specification should include all information necessary to produce and verify conformity of the part. It should be published so that any party may manufacture the part. Examples of specifications are National Aerospace Standards (NAS), Army-Navy Aeronautical Standard (AN), Society of Automotive Engineers (SAE), SAE Sematec, Joint Electron Device Engineering Council, Joint Electron Tube Engineering Council, and American National Standards Institute (ANSI), EN Specifications, etc.
- (b) To designate a part as a standard part the TC holder may issue a standard parts manual accepted by the competent authority of original TC holder or may make reference in the parts catalogue to the specification to be met by the standard part. Documentation accompanying standard parts should clearly relate to the particular parts and contain a conformity statement plus both the manufacturing and supplier source. Some materials are subject to special conditions such as storage conditions or life limitation, etc., and this should be included in the documentation and/or the material's packaging.
- (c) An EASA Form 1 or equivalent is not normally issued and therefore none should be expected.

AMC2 M.A.501(a)(4) Classification and installation

STANDARD PARTS

For sailplanes and powered sailplanes, non-required instruments and/or equipment certified under the provision of CS 22.1301(b), if those instruments or equipment, when installed, functioning, functioning improperly or not functioning at all, do not in itself, or by its effect upon the sailplane and its operation, constitute a safety hazard.

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

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

AMC M.A.501(a)(5) Classification and installation

MATERIAL

- (a) Consumable material is any material which is only used once, such as lubricants, cements, compounds, paints, chemical dyes and sealants, etc.
- (b) Raw material is any material that requires further work to make it into a component part of the aircraft such as metals, plastics, wood, fabric, etc.
- (c) Material both raw and consumable should only be accepted when satisfied that it is to the required specification. To be satisfied, the material and or its packaging should be marked with the specification and, where appropriate, the batch number.
- (d) Documentation accompanying all materials should clearly relate to the particular material and contain a conformity statement plus both the manufacturing and supplier source. Some materials are subject to special conditions such as storage conditions or life limitation, etc., and this should be included in the documentation and/or the material's packaging.
- (e) An EASA Form 1 or equivalent should not be issued for such materials and, therefore, none should be expected. The material specification is normally identified in the (S)TC holder's data except in the case where the Agency or the competent authority has agreed otherwise.

GM1 M.A.501(b) Classification and installation

- (a) To ensure that components, standard parts and materials are in satisfactory condition, the person referred to under M.A.801(b)(2), M.A.801(b)(3) M.A.801(c) or M.A.801 (d), or the approved maintenance organisation should perform an incoming physical inspection.
- (b) The incoming inspection should be performed before the component is installed on the aircraft.
- (c) The following list, although not exhaustive, contains typical checks to be performed:
 - (1) verify the general condition of components and their packaging in relation to damages that could affect the integrity of the components;
 - (2) verify that the shelf life of the component has not expired;
 - (3) verify that items are received in the appropriate package in respect of the type of component: e.g. correct ATA 300 or electrostatic sensitive devices packaging, when necessary;
 - (4) verify that component has all plugs and caps appropriately installed to prevent damage or internal contamination. Care should be taken when tape is used to cover electrical connections or fluid fittings/openings because adhesive residues can insulate electrical connections and contaminate hydraulic or fuel units.
- (d) Items (e.g. fasteners) purchased in batches should be supplied in a package. The packaging should state the applicable specification/standard, P/N, batch number and the quantity of the items. The documentation accompanying the material should contain the applicable specification/standard, P/N, batch number, supplied quantity, and the manufacturing sources. If the material is acquired from different batches, acceptance documentation for each batch should be provided.

GM2 M.A.501(b) Classification and installation

INSTALLATION OF COMPONENTS

Components, standard parts and materials should only be installed when specified in the applicable maintenance data. This could include parts catalogue (IPC), service bulletins (SB), aircraft maintenance manual (AMM), etc. So, a component, standard part and material can only be installed after having checked the applicable maintenance data. This check should ensure that the part number, modification status, limitations, etc., of the component, standard part or material are the ones specified in the applicable maintenance data of the particular aircraft or component (i.e. IPC, SB, AMM, CMM, etc.) where the component, standard part or material is going to be installed. When the installation is performed outside a maintenance organisation, that is by the persons referred to in M.A.801(b)(2), M.A.801(b)(3), M.A.801(c) or M.A.801 (d), then the person is responsible to perform this check before installation. When the installation is performed by a Part M Subpart F organisation, then the organisation has to establish procedures to ensure that this check is performed before installation.

7.1.1 Changes to M.A.502

- M.A.502 (d) is amended to improve its readability, the resulting text is as follows:
 - (d) By derogation from paragraph (a) and point M.A.801(b)2, certifying staff referred to in point M.A.801(b)2 may perform, in accordance with component maintenance data, the following:
 - (1) Maintenance other than overhaul of components, while the component is installed or temporarily removed from an ELA1 aircraft not used in commercial air transport.
 - (2) Overhaul of engines and propellers while installed or temporarily removed from an CS-VLA, CS-22 and LSA aircraft not used in commercial air transport.

Component maintenance performed in accordance with paragraph (d) is not eligible for the issuance of an EASA Form 1 and shall be subject to the aircraft release requirements provided for in point M.A.801.

7.1.2 Changes to M.A.504 and its associated AMC/GM

- Existing M.A.504 Control of unserviceable components is deleted and replaced by a new M.A.504 Segregation of components.
- Existing AMC M.A.504 (a), AMC M.A.504 (b), AMC M.A.504 (c), AMC M.A.504 (d)(2), AMC M.A.504 (e) are deleted.
- New AMC M.A.504 and GM M.A.504 are added.

The resulting text for M.A.504 and its associated AMC/GM is as follows:

M.A.504 Segregation of components

- (a) Unserviceable and unsalvageable components shall be segregated from serviceable components, standards parts and materials.
- (b) Unsalvageable components shall not be permitted to re-enter the component supply system unless certified life limits have been extended or a repair solution has been approved according to Regulation (EU) No 748/2012.

AMC M.A.504 Segregation of components

-
- (a) Unserviceable components should be identified and stored in a secure location under the control of the maintenance organisation until a decision is made on the future status of such component. M.A.801(b)(2), M.A.801(c) or M.A.801 (d) certifying staff performing aircraft maintenance should send, with the agreement of the aircraft owner/lessee, any unserviceable component to a maintenance organisation for controlled storage. Nevertheless, the person or organisation that declared the component unserviceable may transfer its custody, after identifying it as unserviceable, to the aircraft owner provided that such transfer is reflected in the aircraft logbook, or engine logbook, or component logbook.
- (b) 'Secure location under the control of an approved maintenance organisation' means a secure location whose security is the responsibility of the approved maintenance organisation. This may include facilities established by the organisation at locations different from the main maintenance facilities. These locations should be identified in the relevant procedures of the organisation.
- (c) In the case of unsalvageable components the person or organisation should:
- (1) retain such component in the point (b) location;
 - (2) arrange for the component to be mutilated in a manner that ensures that it is beyond economic salvage or repair before disposing it; or
 - (3) mark the component indicating that it is unsalvageable, when, in agreement with the component owner, the component is disposed of for legitimate non-flight uses, such as training and education aids, research and development, or for non-aviation applications, mutilation is often not appropriate. Alternatively to marking, the original part number or data plate information can be removed or a record kept of the disposition of the component.

GM M.A.504 Segregation of components

MUTILATION OF COMPONENTS

- (a) Mutilation should be accomplished in such a manner that the components become permanently unusable for their original intended use. Mutilated components should not be able to be reworked or camouflaged to provide the appearance of being serviceable, such as by replating, shortening and rethreading long bolts, welding, straightening, machining, cleaning, polishing, or repainting.
- (b) Mutilation may be accomplished by one or a combination of the following procedures:
- (1) grinding;
 - (2) burning;
 - (3) removal of a major lug or other integral feature;
 - (4) permanent distortion of parts;
 - (5) cutting a hole with cutting torch or saw;
 - (6) melting;
 - (7) sawing into many small pieces; and
 - (8) any other method accepted by the competent authority.
- (c) The following procedures are examples of mutilation that are often less successful because they may not be consistently effective:
- (1) stamping or vibro-etching;
 - (2) spraying with paint;

- (3) small distortions, incisions, or hammer marks;
- (4) identification by tags or markings;
- (5) drilling small holes; and
- (6) sawing in two pieces only.

7.1.3 Changes to M.A.608

M.A.608 (c) is amended, and the resulting text of M.A.608 (c) is as follows:

M.A.608 Components, equipment and tools

- (c) The organisation shall inspect, classify and appropriately segregate all incoming components, standard parts and materials.

7.1.4 Changes to AMC M.A.802

AMC M.A.802 is amended, and the resulting text is as follows:

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

The purpose of the EASA Form 1 (see also Appendix II to Part-M) is to release components after manufacture and to release maintenance work carried out on such components under the approval of a competent authority and to allow components removed from one aircraft/component to be fitted to another aircraft/component.

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

7.1.5 Changes to GM to Appendix II to Part-M

- GM to Appendix II to Part-M is amended and the resulting text is as follows:

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

The EASA Form 1 identifies the airworthiness status of an aircraft component in relation to the work being certified. Block 12 'Remarks' on the EASA Form 1 in some cases contains vital airworthiness-related information (see also Appendix II to Part-M) which may need appropriate and necessary actions.

Examples of data to be entered in Block 12 as appropriate:

- Maintenance documentation used, including revision status, for all work performed and not limited to the entry made in Block 11. A statement such as 'in accordance with the CMM' is not acceptable.
- NDT methods with appropriate documentation used when relevant.
- Compliance with airworthiness directives or service bulletins.
- Repairs carried out.
- Modifications carried out.
- Replacement parts installed.
- Life-limited parts' status.

- Shelf life limitations.
- Deviations from the customer's work order.
- Release statements to satisfy a foreign civil aviation authority maintenance requirement.
- Information needed to support shipment with shortages or reassembly after delivery.
- References to aid traceability, such as batch numbers.

7.1.1 Changes to Appendix VII to Part-M

- The first paragraph of Appendix VII to Part-M is amended to delete the reference to M.A.502 (d)(3), this is an inconsistency that needed to be corrected. The resulting text of the first paragraph Appendix VII is as follows:

The following constitutes the complex maintenance tasks referred to in M.A.801(b)2 and M.A.801(c):

7.2. Changes to Part-145 and AMC/GM to Part-145

7.2.1 Changes to the table of contents of Part-145

In the table of contents, points 145.A.40 and 145.A.42 are amended as follows:

145.A.40 Equipment and tools
145.A.42 Components

7.2.2 Changes to 145.A.40 and its associated AMC

- 145.A.40 is amended to remove the word "material";
- The titles of AMC 145.A.40 (a) and AMC 145.A.40 (b) are amended to remove the word material.

The resulting text of 145.A.40 and the resulting text for the titles of AMC 145.A.40 (a) and AMC 145.A.40 (b) is as follows:

145.A.40 Equipment and tools

- (a) The organisation shall have available and use the necessary equipment and tools to perform the approved scope of work.
- (1) Where the manufacturer specifies a particular tool or equipment, the organisation shall use that tool or equipment, unless the use of alternative tooling or equipment is agreed by the competent authority via procedures specified in the exposition.
 - (2) Equipment and tools must be permanently available, except in the case of any tool or equipment that is so infrequently used that its permanent availability is not necessary. Such cases shall be detailed in an exposition procedure.
 - (3) An organisation approved for base maintenance shall have sufficient aircraft access equipment and inspection platforms/docking such that the aircraft can be properly inspected.
- (b) The organisation shall ensure that all tools, equipment and particularly test equipment, as appropriate, are controlled and calibrated according to an officially recognised standard at a frequency to ensure serviceability and accuracy. Records of such calibrations and

traceability to the standard used shall be kept by the organisation.

AMC 145.A.40 (a) Equipment and tools

AMC 145.A.40 (b) Equipment and tools

7.2.3 Changes to 145.A.42 and its associated AMC/GM

- Existing 145.A.42 is amended;
- Existing AMC 145.A.42 (a), AMC 145.A.42 (b), AMC 145.A.42 (c) and 145.A.42 (d) are deleted;
- New AMC 145.A.42 (a)(1), AMC 145.A.42 (a)(2), AMC 145.A.42 (a)(3), AMC1 145.A.42 (a)(4), AMC2 145.A.42 (a)(4), AMC 145.A.42 (a)(5), AMC 145.A.42 (b)(1), AMC 145.A.42 (b)(3), AMC M.A.145.A.42 (c);
- New GM 145.A.42 (a)(2), GM1 145.A.42 (b)(1), GM2 145.A.42 (b)(1), GM3 145.A.42 (b)(1), GM 145.A.42 (b)(2), GM 145.A.42 (c)(2).

The resulting text for 145.A.42 and its associated AMC/GM is as follows:

145.A.42 Components

- (a) Classification of components. All components shall be classified into the following categories:
- (1) Components which are in a satisfactory condition, released on an EASA Form 1 or equivalent and marked in accordance with Subpart Q of the Annex (Part-21) to Regulation (EU) No 748/2012, unless otherwise specified in Annex (Part-21) to Regulation (EU) No 748/2012, or in this Annex II (Part-145).
 - (2) Unserviceable components which shall be maintained in accordance with this Regulation.
 - (3) Components categorised as unsalvageable because they have reached their certified life limit or contain a non-repairable defect.
 - (4) Standard parts used on an aircraft, engine, propeller or other aircraft component when specified in the maintenance data and accompanied by evidence of conformity traceable to the applicable standard.
 - (5) Material both raw and consumable used in the course of maintenance when the organisation is satisfied that the material meets the required specification and has appropriate traceability. All materials must be accompanied by documentation clearly relating to the particular material and containing a conformity to specification statement plus both the manufacturing and supplier source.
- (b) Components, standard parts and materials for installation
- (1) The organisation shall establish procedures for the acceptance of components, standard parts and materials for installation to ensure that components, standard parts and materials are in satisfactory condition and meet the applicable requirements of point (a).
 - (2) The organisation shall establish procedures to ensure that components, standard parts and materials shall only be installed on an aircraft or a component when they are in satisfactory condition, meet the applicable requirements of point (a), and the applicable maintenance data specifies the particular component, standard part or material.
 - (3) The organisation may fabricate a restricted range of parts to be used in the course of undergoing work within its own facilities provided procedures are identified in the exposition.

- (4) Components referred to in point 21.A.307(c) of the Annex (Part-21) to Regulation (EU) No 748/2012 shall only be installed if considered eligible for installation by the aircraft owner on its own aircraft.
- (c) Segregation of components
- (1) Unserviceable and unsalvageable components shall be segregated from serviceable components, standards parts and materials.
 - (2) Unsalvageable components shall not be permitted to re-enter the component supply system unless certified life limits have been extended or a repair solution has been approved according to Regulation (EU) No 748/2012. .

AMC 145.A.42(a)(1) Components

EASA FORM 1 OR EQUIVALENT

A document equivalent to an EASA Form 1 may be:

- (a) a release document issued by an organisation under the terms of a bilateral agreement signed by the European Union;
- (b) a release document issued by an organisation approved under the terms of a JAA bilateral agreement until superseded by the corresponding agreement signed by the European Union;
- (c) a JAA Form One issued prior to 28 November 2004 by a JAR 145 organisation approved by a JAA Full Member State;
- (d) in the case of new aircraft components that were released from manufacturing prior to the Part-21 compliance date, the component should be accompanied by a JAA Form One issued by a JAR 21 organisation approved by a JAA Full Member State and within the JAA mutual recognition system;
- (e) a JAA Form One issued prior to 28 September 2005 by a production organisation approved by a competent authority in accordance with its national regulations.

GM 145.A.42(a)(2) Components

UNSERVICEABLE COMPONENTS

- (a) The organisation should ensure proper identification of any unserviceable component. The unserviceable status of the component should be clearly declared on a tag together with the component identification data and any information useful to define actions necessary to be taken. Such information should state, as applicable, in-service times, maintenance status, preservation status, failures, defects or malfunctions reported or detected exposure to adverse environmental conditions, and if the component was installed on an aircraft involved in an accident or incident. Means should be provided to prevent unintentional separation of this tag from the component.
- (b) Unserviceable components should typically undergo maintenance due to:
 - (1) expiry of the service life limit as defined in the aircraft maintenance programme;
 - (2) non-compliance with the applicable airworthiness directives and other continuing airworthiness requirements mandated by the Agency;
 - (3) absence of the necessary information to determine the airworthiness status or eligibility for installation;
 - (4) evidence of defects or malfunctions; or
 - (5) being installed on an aircraft involved in an incident or accident likely to affect its serviceability.

AMC 145.A.42(a)(3) Components

UNREPAIRABLE COMPONENTS

- (a) The following types of components should typically be classified as unreparable:
 - (1) components with non-repairable defects, whether visible or not to the naked eye;
 - (2) components that do not meet design specifications, and cannot be brought in

- conformity with such specifications;
- (3) components subjected to unacceptable modification or rework that is irreversible;
 - (4) certified life-limited parts that have reached or exceeded their certified life limits, or have missing or incomplete records;
 - (5) components whose airworthy condition cannot be restored due to exposure to extreme forces, heat or adverse environmental conditions;
 - (6) components for which conformity with an applicable airworthiness directive cannot be accomplished;
 - (7) components for which maintenance records and/or traceability to the manufacturer cannot be retrieved.

AMC1 145.A.42(a)(4) Components

STANDARD PARTS

- (a) Standard parts are parts manufactured in complete compliance with an established industry, Agency, competent authority or other government specification which includes design, manufacturing, test and acceptance criteria, and uniform identification requirements. The specification should include all information necessary to produce and verify conformity of the part. It should be published so that any party may manufacture the part. Examples of specifications are National Aerospace Standards (NAS), Army-Navy Aeronautical Standard (AN), Society of Automotive Engineers (SAE), SAE Sematec, Joint Electron Device Engineering Council, Joint Electron Tube Engineering Council, and American National Standards Institute (ANSI), EN Specifications, etc.
- (b) To designate a part as a standard part the TC holder may issue a standard parts manual accepted by the competent authority of original TC holder or may make reference in the parts catalogue to the specification to be met by the standard part. Documentation accompanying standard parts should clearly relate to the particular parts and contain a conformity statement plus both the manufacturing and supplier source. Some materials are subject to special conditions such as storage conditions or life limitation, etc., and this should be included in the documentation and/or the material's packaging.
- (c) An EASA Form 1 or equivalent is not normally issued and, therefore, none should be expected.

AMC2 145.A.42(a)(4) Components

STANDARD PARTS

For sailplanes and powered sailplanes, non-required instruments and/or equipment certified under the provision of CS 22.1301(b), if those instruments or equipment, when installed, functioning, functioning improperly or not functioning at all, do not in itself, or by its effect upon the sailplane and its operation, constitute a safety hazard.

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

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

AMC 145.A.42(a)(5) Components

MATERIAL

- (a) Consumable material is any material which is only used once, such as lubricants, cements, compounds, paints, chemical dyes and sealants, etc.
- (b) Raw material is any material that requires further work to make it into a component part of the aircraft such as metal, plastic, wood, fabric, etc.
- (c) Material both raw and consumable should only be accepted when satisfied that it is to the required specification. To be satisfied, the material and or its packaging should be marked with the specification and where appropriate the batch number.
- (d) Documentation accompanying all materials should clearly relate to the particular material and contain a conformity statement plus both the manufacturing and supplier source. Some materials are subject to special conditions such as storage conditions or life limitation, etc., and this should be included in the documentation and/or the material's packaging.
- (e) An EASA Form 1 or equivalent should not be issued for such materials and, therefore, none should be expected. The material specification is normally identified in the (S)TC holder's data except in the case where the Agency or the competent authority has agreed otherwise.

AMC 145.A.42(b)(1) Components

ACCEPTANCE OF COMPONENTS FOR INSTALLATION

- (a) The procedures for acceptance of components' standard parts and materials should have the objective of ensuring that the components, standard parts and materials are in satisfactory condition and meet the organisation's requirements. These procedures should be based upon incoming inspections which include:
 - (1) physical inspection of components, standard parts and/or materials;
 - (2) review of accompanying documentation and data, which should be acceptable in accordance with 145.A.42(a).
- (b) For acceptance of components, standard parts and materials from suppliers, the above procedures should include supplier evaluation procedures.

GM1 145.A.42(b)(1) Components

INCOMING PHYSICAL INSPECTION

- (a) To ensure that components, standard parts and materials are in satisfactory condition the organisation should perform a physical inspection.
- (b) The incoming inspection should be performed before the component is installed on the aircraft.
- (c) The following list, although not exhaustive, contains typical checks to be performed:
 - (1) verify the general condition of components and their packaging in relation to damages that could affect the integrity of the components;
 - (2) verify that the shelf life of the component has not expired;

- (3) verify that items are received in the appropriate package in respect of the type of component: e.g. correct ATA 300 or electrostatic sensitive devices packaging, when necessary;
 - (4) verify that the component has all plugs and caps appropriately installed to prevent damage or internal contamination. Care should be taken when tape is used to cover electrical connections or fluid fittings/openings because adhesive residues can insulate electrical connections and contaminate hydraulic or fuel units.
- (d) Items (fasteners, etc.) purchased in batches should be supplied in a package. The packaging should state the applicable specification/standard, part number, batch number and the quantity of the items. The documentation accompanying the material should contain the applicable specification/standard, part number, batch number, supplied quantity, and the manufacturing sources. If the material is acquired from different batches, acceptance documentation for each batch should be provided.

GM2 145.A.42(b)(1) Components

EXAMPLES OF SUPPLIERS

A supplier could be any source providing components, standard parts or materials to be used for maintenance. Possible sources could be: Part-145 organisations, Part-21 Subpart G organisations, operators, stockist, distributors, brokers, Part-M Subpart F organisations, aircraft owners, etc.

GM3 145.A.42(b)(1) Components

SUPPLIER EVALUATION

- (a) The following elements should be considered for the initial and recurrent evaluation of a supplier's quality system to ensure that the component and/or material is supplied in satisfactory condition:
- (1) availability of appropriate up-to-date regulations, specifications (such as component manufacturer's data) and standards;
 - (2) standards and procedures for training of personnel and competency assessment;
 - (3) procedures for shelf life control;
 - (4) procedures for handling of electrostatic sensitive devices;
 - (5) procedures for identifying the source from which components and materials were received;
 - (6) purchasing procedures identifying documentation to accompany components and materials for subsequent use by approved Part-145 maintenance organisations;
 - (7) procedures for incoming inspection of components and materials;
 - (8) procedures for control of measuring equipment that provide for appropriate storage, usage, and for calibration when such equipment is required;
 - (9) procedures to ensure appropriate storage conditions for components and materials that are adequate to protect the components and materials from damage and/or deterioration. Such procedures should comply with the manufacturers' recommendations and relevant standards;
 - (10) procedures for adequate packing and shipping of components and materials to protect them from damage and deterioration, including procedures for proper shipping of dangerous goods (e.g. ICAO and ATA specifications);
 - (11) procedures for detecting and reporting of suspected unapproved components;

- (12) Procedures for handling unsalvageable components in accordance with applicable regulations and standards;
 - (13) procedures for batch splitting or redistribution of lots and handling of the related documents;
 - (14) procedures notifying purchasers of any components that have been shipped and have later been identified as not conforming to the applicable technical data or standard;
 - (15) procedures for recall control to ensure that components and materials shipped can be traced and recalled if necessary;
 - (16) procedures for monitoring the effectiveness of the quality system.
- (b) Suppliers certified to officially recognised standards that have a quality system that includes the elements specified in (a) may be acceptable; such standards include:
- (1) EN/AS9120 and listed in the OASIS database;
 - (2) ASA-100;
 - (3) EASO 2012;
 - (4) FAA AC00-56.
- The use of such suppliers does not exempt the organisation from its obligations under 145.A.42 to ensure that supplied components and materials are in satisfactory condition and meet the applicable criteria of 145.A.42.
- (c) Supplier evaluation may depend on different factors such as the type of component, whether or not the supplier is the manufacturer of the component, the TC holder or a maintenance organisation, or even specific circumstances such as aircraft on ground. This evaluation may be limited to a questionnaire from the Part-145 organisation to its suppliers, a desktop evaluation of the supplier's procedures or an on-site audit, if deemed necessary.

GM 145.A.42(b)(2) Components

INSTALLATION OF COMPONENTS

Components, standard parts and materials should only be fitted when specified in the applicable maintenance data. This could include parts catalogue (IPC), service bulletins (SB), aircraft maintenance manual (AMM), etc. So, the installation of a component, standard part and material can only be done after checking the applicable maintenance data.

This check should ensure that the part number, modification status, limitations, etc., of the component, standard part or material are the ones specified in the applicable maintenance data of the particular aircraft or component (i.e. IPC, SB, AMM, CMM, etc.) where the component, standard part or material is going to be installed. The organisation should establish procedures to ensure that this check is performed before installation.

AMC 145.A.42(b)(3) Components

FABRICATION OF PARTS FOR INSTALLATION

- (a) The agreement by the competent authority for the fabrication of parts by the approved maintenance organisation should be formalised through the approval of a detailed procedure in the Maintenance Organisation Exposition. This AMC contains principles and conditions to be taken into account for the preparation of an acceptable procedure.
- (b) Fabrication, inspection, assembly and test should be clearly within the technical and procedural capability of the organisation.

-
- (c) All necessary data to fabricate the part should be approved either by the Agency or the type certificate (TC) holder, or Part-21 design organisation approval holder, or supplemental type certificate (STC) holder.
- (d) Items fabricated by an organisation approved under Part-145 may only be used by that organisation in the course of overhaul, maintenance, modifications, or repair of aircraft or components performing work in its own facilities. The permission to fabricate does not constitute approval for manufacture, or to supply externally, and the parts do not qualify for EASA Form 1 certification. This prohibition also applies to the bulk transfer of surplus inventory, in that locally fabricated parts are physically segregated and excluded from any delivery certification.
- (e) Fabrication of parts, modification kits, etc., for onward supply and/or sale may not be conducted by an organisation approved under Part-145.
- (f) The data specified in point (c) may include repair procedures involving the fabrication of parts. Where the data on such parts is sufficient to facilitate fabrication, the parts may be fabricated by an organisation approved under Part-145. Care should be taken to ensure that the data include details of part numbering, dimensions, materials, processes, and any special manufacturing techniques, special raw material specification and/or incoming inspection requirement and that the approved organisation has the necessary capability. That capability should be defined by way of exposition content. Where special processes or inspection procedures are defined in the approved data which are not available at the organisation, the organisation cannot fabricate the part unless the TC/STC holder gives an approved alternative.
- (g) Examples of fabrication under the scope of a Part-145 approval may include, but are not limited to, the following:
- (1) fabrication of bushes, sleeves and shims;
 - (2) fabrication of secondary structural elements and skin panels;
 - (3) fabrication of control cables;
 - (4) fabrication of flexible and rigid pipes;
 - (5) fabrication of electrical cable looms and assemblies;
 - (6) formed or machined sheet metal panels for repairs.

All the above-mentioned fabricated parts should be in accordance with the data provided in the overhaul or repair manuals, modification schemes and service bulletins, drawings, or should be otherwise approved by the competent authority.

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

- (h) Where a TC-holder or an approved production organisation is prepared to make available complete data which is not referred to in the aircraft manuals or service bulletins but provides manufacturing drawings for items specified in parts lists, the fabrication of these items is not considered to be within the scope of an approval unless agreed otherwise by the competent authority in accordance with a procedure specified in the exposition.
- (i) Inspection and identification

Any locally fabricated part should be subject to inspection before, separately, and preferably independently from any inspection of its installation. The inspection should establish full compliance with the relevant manufacturing data, and the part should be unambiguously identified as fit for use by stating conformity to the approved data. Adequate records should be maintained of all such fabrication processes including heat treatment and final inspections. All parts, except those having not enough space, should carry a part number

which clearly relates it to the manufacturing/inspection data. In addition to the part's number, the organisation's identity should be marked on the part for traceability purposes.

AMC 145.A.42(c) Components

SEGREGATION OF COMPONENTS

- (a) Unserviceable components should be identified and stored in a secure location under the control of the maintenance organisation until a decision is made on the future status of such components. The organisation that declared the component unserviceable may transfer its custody after identifying it as unserviceable to the aircraft owner provided that such transfer is reflected in the aircraft logbook, or engine logbook, or component logbook.
- (b) 'Secure location under the control of an approved maintenance organisation' means a secure location whose security is the responsibility of the approved maintenance organisation. This may include facilities established by the organisation at locations different from the main maintenance facilities. These locations should be identified in the relevant procedures of the organisation.
- (c) In the case of unsalvageable components the organisation should:
 - (1) retain such component in the point (b) location;
 - (2) arrange for the component to be mutilated in a manner that ensures that it is beyond economic salvage or repair before disposing it; or
 - (3) mark the component indicating that it is unsalvageable, when in agreement with the component owner, the component is disposed of for legitimate non-flight uses, such as training and education aids, research and development, or for non-aviation applications, mutilation is often not appropriate. Alternatively to marking, the original part number or data plate information can be removed or a record kept of the disposition of the component.

GM 145.A.42(c)(2) Components

MUTILATION OF COMPONENTS

- (a) Mutilation should be accomplished in such a manner that the components become permanently unusable for their original intended use. Mutilated components should not be able to be reworked or camouflaged to provide the appearance of being serviceable, such as by replating, shortening and rethreading long bolts, welding, straightening, machining, cleaning, polishing, or repainting.
- (b) Mutilation may be accomplished by one or a combination of the following procedures:
 - (1) grinding;
 - (2) burning;
 - (3) removal of a major lug or other integral feature;
 - (4) permanent distortion of parts;
 - (5) cutting a hole with cutting torch or saw;
 - (6) melting;
 - (7) sawing into many small pieces; and
 - (8) any other method accepted by the competent authority.
- (c) The following procedures are examples of mutilation that are often less successful because they may not be consistently effective:
 - (1) stamping or vibro-etching;
 - (2) spraying with paint;
 - (3) small distortions, incisions, or hammer marks;

- (4) identification by tags or markings;
- (5) drilling small holes; and
- (6) sawing in two pieces only.

7.2.4 Changes to GM 145.A.65 (c) (1): Safety and quality policy, maintenance procedures and quality system.

- Point 2 of GM 145.A.65 (c)(1) is amended to include the applicable Part-M points in the list of subjects to be audited. The resulting text of GM 145.A.65 (c)(1) point 2 is as follows:
 2. The proposed plan lists the subject matter that should be covered by the audit and attempts to indicate applicability in the various types of workshops and aircraft facilities. The list should therefore be tailored for the particular situation and more than one list may be necessary. Each list should be shown against a timetable to indicate when the particular item is scheduled for audit and when the audit was completed.

PARA	Comment	HANGAR	ENGINE	MECH	AVIONIC
			Workshop	Workshop	Workshop
145.A.25		Yes	Yes	Yes	Yes
145.A.30		Yes	Yes	Yes	Yes
145.A.35		Yes	Yes	Yes	Yes
145.A.40		Yes	Yes	Yes	Yes
145.A.42		Yes	Yes	Yes	Yes
145.A.45		Yes	Yes	Yes	Yes
145.A.47		Yes	Yes	Yes	Yes
145.A.50		Yes	Yes	Yes	Yes
145.A.55		Yes	Yes	Yes	Yes
145.A.60		Yes	Yes	Yes	Yes
145.A.65		Yes	Yes	Yes	Yes
2.1	MOE	Yes	Yes	Yes	Yes
2.2	MOE	Yes	Yes	Yes	Yes
2.3	MOE	Yes	Yes	Yes	Yes
2.4	MOE	Yes	Yes	Yes	Yes
2.5	MOE	Yes	Yes	Yes	Yes
2.6	MOE	Yes	Yes	Yes	Yes
2.7	MOE	Yes	Yes	Yes	Yes
2.8	MOE	Yes	Yes	Yes	Yes
2.9	MOE	Yes	Yes	Yes	Yes
2.10	MOE	Yes	No	No	No
2.11	MOE	Yes	Yes	Yes	Yes
2.12	MOE	Yes	Yes	Yes	Yes
2.13	MOE	Yes	Yes	Yes	Yes
2.15	MOE	Yes	No	No	No
2.16	MOE	Yes	Yes	Yes	Yes
2.17	MOE	if appl	if appl	if appl	if appl
2.18	MOE	Yes	Yes	Yes	Yes
2.19	MOE	Yes	Yes	Yes	Yes
2.20	MOE	Yes	Yes	Yes	Yes
2.21	MOE	if appl	if appl	if appl	if appl
2.22	MOE	Yes	Yes	No	No
2.23	MOE	Yes	No	No	No
2.24	MOE	Yes	Yes	Yes	Yes

PARA	Comment	HANGAR	ENGINE	MECH	AVIONIC
2.25	MOE	Yes	Yes	Yes	Yes
2.26	MOE	Yes	Yes	Yes	Yes
2.27	MOE	Yes	Yes	Yes	Yes
2.28	MOE	Yes	Yes	Yes	Yes
L2.1	MOE	if appl	No	No	No
L2.2	MOE	if appl	No	No	No
L2.3	MOE	if appl	No	No	No
L2.4	MOE	if appl	No	No	No
L2.5	MOE	if appl	No	No	No
L2.6	MOE	if appl	No	No	No
L2.7	MOE	if appl	No	No	No
3.9	MOE	if appl	if appl	if appl	if appl
3.10	MOE	if appl	if appl	if appl	if appl
3.11	MOE	if appl	if appl	if appl	No
3.12	MOE	Yes	Yes	No	No
3.13	MOE	Yes	Yes	Yes	Yes
3.14	MOE	Yes	Yes	Yes	Yes
145.A.70		Yes	Yes	Yes	Yes
145.A.75		Yes	Yes	Yes	Yes
145.A.80		Yes	Yes	Yes	Yes
145.A.85		Yes	Yes	Yes	Yes
145.A.95		if appl	if appl	if appl	if appl
M.A.402		Yes	Yes	Yes	Yes
M.A.403		Yes	No	No	No
M.A.502		Yes	Yes	Yes	Yes

Note 1: 'if appl' means if applicable or relevant.

Note 2: In the line station case all line stations should be audited at the frequency agreed with the competent authority within the limits of AMC 145.A.65(c)(1).

7.2.5 Changes to Appendix II to AMC 145.B.20 (5): EASA Form 6

3. Part 2 of EASA form 6 is amended and the resulting text of Part-2 of the EASA Form 6 is as follows:

Part-145 APPROVAL RECOMMENDATION REPORT		EASA FORM 6				
Part 2: Part-145 Compliance Audit Review						
The five columns may be labelled and used as necessary to record the approval class and/or product line reviewed. Against each column used of the following Part-145 subparagraphs please either tick (✓) the box if satisfied with compliance or cross (X) the box if not satisfied with compliance and specify the reference of the Part 4 finding next to the box, or enter N/A where an item is not applicable, or N/R when applicable but not reviewed.						
Para	Subject					
145.A.25	Facility requirements	<input type="checkbox"/>				
145.A.30	Personnel requirements	<input type="checkbox"/>				
145.A.35	Certifying Staff and support staff	<input type="checkbox"/>				
145.A.40	Equipment and Tools	<input type="checkbox"/>				
145.A.42	Components	<input type="checkbox"/>				

145.A.45	Maintenance Data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145.A.47	Production Planning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145.A.50	Certification of Maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145.A.55	Maintenance Records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145.A.60	Occurrence Reporting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145.A.65	Safety and Quality Policy, maintenance procedures and Quality System	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145.A.70	Maintenance Organisation Exposition (see Part 3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145.A.75	Privileges of the organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145.A.80	Limitations on the organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145.A.85	Changes to the organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
145.A.95	Findings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.402	Performance of Maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.403	Aircraft Defects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M.A.502	Component Maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Competent surveyor(s):		Signature(s):				
Competent authority office:		Date of Form 6 part 2 completion:				