



Alternative Methods of Compliance (AMOC)

Comments on the Draft Order
Submitted to the FAA by email via brennen.d.roberts@faa.gov

**Submitted by the
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July 28, 2010

Brennen D. Roberts
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AIR-150, Safety Management Design & Analysis Branch
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Dear Mr. Roberts:

Please accept these comments on the draft Order, Alternative Methods of Compliance (AMOC), which was published for public comment.

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Who is MARPA?

The Modification and Replacement Parts Association was founded to support PMA manufacturers and their customers. Aircraft parts are a vital sector of the aviation industry, and MARPA acts to represent the interests of the manufacturers of this vital resource before the FAA and other government agencies.

MARPA is a Washington, D.C.-based, non-profit association that supports its members' business efforts by promoting excellence in production standards for PMA parts. The Association represents its members before aviation policy makers, giving them a voice in Washington D.C. to prevent unnecessary or unfair regulatory burden while at the same time working with the FAA to help improve the aviation industry's already-impressive safety record.

MARPA represents a diverse group of interests – from the smallest companies to the largest - all dedicated to excellence in producing aircraft parts. MARPA's members provide data to the FAA in order to support PMA applications, so the policies and standards published in FAA issue papers could be very important to their compliance strategies.

MARPA's members have a special interest in AMOCs. PMA parts are frequently the subject of AMOCs, because Airworthiness Directives may be issued that make a PMA part presumptively non-compliant, despite the fact that the engineering data exists to show that the PMA part is safe and meets the requirements of the Airworthiness Standards. In such a case, the PMA company and the operator must rely on the approval of an AMOC in order to use this alternative part.

Summary of the Comments

MARPA applauds the FAA's efforts to improve the standards associated with approving Alternative Methods of Compliance (AMOCs). MARPA has a number of systemic comments designed to help promote a better AMOC system that will support the FAA's aims while also meeting legal requirements.

Comments

Clarification Where an Article is Called Out by Nomenclature

Members have expressed confusion about whether an AMOC is required when the Airworthiness Directive and related Service Bulletin designate an article by nomenclature only and not by the part number.

We believe that the FAA could clarify the treatment of such a situation by adding appropriate guidance in appendix A, as follows:

Proposed Question:

The AD requires replacement of a part or parts at a specific interval but does not specify the replacement articles by part numbers. Instead, the replacement articles are specified only by nomenclature. I would like to use an alternative PMA part instead of the replacement part that is only called out by nomenclature. The PMA part was approved as a replacement for an aircraft part that matches the nomenclature of the article specified in the airworthiness directive as the appropriate replacement article. In this case, do I need an AMOC?

Proposed Answer:

No, as long as the AD was not specific as to the P/N or specific to the P/N by reference in the service documents, then any FAA approved alternative would satisfy the AD requirements.

Clarification Where a PMA Part is Proposed to Be Used in a Subsequent Maintenance Cycle After the Airworthiness Directive Terminating Action

Members have expressed confusion about whether an AMOC is required for subsequent maintenance when the Airworthiness Directive requires use of a particular replacement part, and that particular replacement part was installed as a terminating action. The situation that arises is one where during a subsequent maintenance action, the replacement part must, itself, be replaced. There is a PMA part that has been approved as a replacement for the "replacement part" named in the Airworthiness Directive. The installation of the PMA part would not infringe the essence of the Airworthiness Directive (e.g. the PMA part is not named as a source of airworthiness issues in the Airworthiness Directive).

We believe that the FAA could clarify the treatment of such a situation by adding appropriate guidance in appendix A, as follows:

Proposed Question:

I have already complied with an Airworthiness Directive, and replaced a part as terminating action. The aircraft has now returned for its next maintenance cycle. There are other FAA approved PMA alternate parts, that are FAA-approved alternates for the replacement article that was described by the Airworthiness Directive as a terminating action. Do I need an AMOC to install the FAA approved alternate as part of standard maintenance during this next subsequent maintenance cycle?

Proposed Answer:

No, if you have already complied with the terminating action of the AD, then you can use a FAA approved alternate part as part of your normal maintenance cycle.

Clarification Where a PMA Part is Already Approved as a Replacement for the Replacement Part Described in the Terminating Action

Members have expressed confusion about whether an AMOC is required when the Airworthiness Directive requires use of a particular replacement part, and the PMA part has already been approved as a replacement for the article that was identified as a replacement part in the Airworthiness Directive.

We believe that the FAA could clarify the treatment of such a situation by adding appropriate guidance in appendix A, as follows:

Proposed Question:

The Airworthiness Directive requires replacement of a specific part number with a replacement part number as a terminating action to the Airworthiness Directive. The FAA has previously approved a PMA part as an FAA approved equivalent to the replacement part number. Do I need an AMOC to install the FAA approved alternate as the terminating action?

Proposed Answer:

It depends. If the PMA part was approved by identity, then it is an approved alternative with substantially the same characteristics as the replacement part that is designated in the Airworthiness Directive. You

may therefore use it instead of the part called-out in the Airworthiness Directive. However, if the PMA part was approved by a means other than identity, then you must obtain an AMOC because it is not known whether the differences in the physical properties will cause the PMA part to fail to meet the same requirements as the approved replacement part. An analysis of the differences between the replacement part and the PMA part, and an engineering analysis demonstrating that those differences would not adversely affect the ability for the replacement part to correct the airworthiness issue raised by the Airworthiness Directive, may be sufficient to provide an engineering foundation for an AMOC.

Multiple Notification Requirements Do Not Appear to Add Value

Our members expressed concern over the apparent requirement for Global AMOCs to be approved by the FAA more than once.

The new protocols dictate that Global AMOCs be subject to coordination with the responsible aircraft evaluation group (AEG). This should ensure that the global AMOC is appropriate for fleet installation. In normal cases, a PMA company seeking AMOC approval of a PMA article for installation in an aircraft subject to an Airworthiness Directive would make application through their Principal Inspector (PI) and then the PI would coordinate with AEG.

The real problem is that operators using a global AMOC would still have to notify their own PI before using it the AMOC.¹ This is found in Chapter 4, section 4.2(d).

We recommend that operators NOT be compelled to notify their PI before using a Global AMOC. This requirement places an additional burden on the operator that may deter some operators from using global AMOCs. It does not appear to serve any safety goal, because the AMOC has already been reviewed and the underlying engineering has already been approved in the context of the existing Airworthiness Directive. Fleet difference should be immaterial, in that the Airworthiness Directive (and its terminating action) applied across all fleets. There is an appropriate record of the AMOC implementation on the aircraft in accordance with the maintenance recordkeeping requirements of 14 C.F.R. § 43.9.

The Airworthiness Directive terminating action need not be subject to special notice requirements after being published by the FAA in the Airworthiness

¹ The guidance disparages AMOC requests initiated by companies like PMA manufacturers as "third-party global AMOCs." It imposes additional burdens on them that are not imposed when using a solution recommended by the product's Design Approval Holder, such as the solution found in a service bulletin that is referenced by an Airworthiness Directive.

Directive, so it does not seem logical or necessary that an AMOC be subject to special notification by the operator.

We recommend that the second sentence of Chapter 4, section 4.2(d) be eliminated.

Use of the Term "Product"

In Chapter 2, paragraph 2.1(b), the Order states that:

"We also use the term "product" to refer to an aircraft, aircraft engine, propeller, or appliance per Title 14 of the Code of Federal Regulations (14 CFR) § 39.3."

The term product is also used in several other places in the Order. The FAA defined the word "product" to mean an aircraft, aircraft engine, or propeller (but not an appliance) at 14 C.F.R. § 21.1. This definition becomes effective April 16, 2011.

14 C.F.R. § 39.3 states:

"FAA's airworthiness directives are legally enforceable rules that apply to the following products: aircraft, aircraft engines, propellers, and appliances."

In this usage, the term "product" is descriptive (like "items"), but the term "product" is not actually being defined as "aircraft, aircraft engines, propellers, and appliances." The fact that this term in Part 39 was not updated to avoid conflict was probably an oversight.²

For this reason, it is inappropriate to permit the term to be defined based upon a mere descriptive terminology, when there is a true definition of the term elsewhere in the regulations. Such usage could cause later confusion, under circumstances where the true definition of the term "product" becomes important. To avoid this confusion based on a usage that is contrary to regulatory definition, we recommend that the FAA discontinue the use of the term "product" as if it had been defined as "aircraft, aircraft engines, propellers, and appliances."

There is a long history of confusion in the FAA regulations where the same word is used in two different contexts with two different definitions. Such confusion could lead to safety issues - such safety issues are more readily avoided by using clear terminology that is susceptible of only one meaning.

² I was on the ARAC Working Group that drafted the original draft of the Part 21 revisions that were ultimately published on October 16, 2009, and our Working Group did not even recognize that the term "product" was used in a contrary manner in Part 39.

As an alternative, the Order could use the phrase "products and/or appliances." The Order could also use a different term that is not defined in the regulations, such as "items" or .

Harmonization of Language: "Part"

In Chapter 3, paragraph 3.2(d), the Order uses the word "Part." The term is also used in several other places in the Order. The FAA defined the word "article" to mean a material, part, component, process, or appliance. This definition becomes effective April 16, 2011. The FAA should decide whether it is going to begin using the broader term "article" in its guidance instead of the more narrow term "part."

Note that this usage should be distinguished from the use of the term "part" to mean a portion of the regulations (e.g. "Part 39").

Conclusion

MARPA generally supports FAA efforts to standardize government practices. We have spoken with FAA representatives at FAA Headquarters, the Transport Aircraft Directorate and the Engine and Propeller Directorate about the AMOC issues facing the industry. We are pleased to see so many of these discussions captured in this draft Order, and we hope that our comments facilitate further improvements in the AMOC system.

We appreciate your consideration of these comments.

Respectfully Submitted,

A handwritten signature in black ink that reads "Jason Dickstein". The signature is written in a cursive style with a large, looped initial "J".

Jason Dickstein
President

Modification and Replacement Parts Association