



EUROPEAN AVIATION SAFETY AGENCY
AGENCE EUROPÉENNE DE LA SÉCURITÉ AÉRIENNE
EUROPÄISCHE AGENTUR FÜR FLUGSICHERHEIT

RMT.0018

Installation of parts released without an EASA Form 1

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Current situation

21.A.307 Release of parts and appliances.

A part or appliance shall be eligible for installation in a type-certificated product when:

- (a) accompanied by an authorised release certificate (EASA Form 1)...
- (b) a standard part; or
- (c) in the case of ELA1 or ELA2 aircraft, a part or appliance that is: not life-limited, nor part of the primary structure, nor part of the flight controls;

Paragraph (a) implies that the parts need to be produced in a POA or in an organisation approved 21.F.

Note: Fabrication of certain parts is also possible in MROs (145.A.42(c) and M.A.603 (c))



Current situation

M.A.501 (and 145.A.42)

MRO 145, M.F or Part-66 'independent certifying staff'... is responsible that parts are in a satisfactory condition, eligible for installation and has been appropriately released to service on an EASA Form 1 or equivalent

AMC M.A.501(a)... 'Equivalent to EASA Form 1' means as permitted in a BASA.



Reason for rulemaking

ToR RMT.0018

<https://www.easa.europa.eu/document-library/terms-of-reference-and-group-compositions/tor-21026-rmt0018-and-rmt0571>

Requiring a Form 1 for all new parts to be installed during maintenance does not add safety. Why systematically require production i.a.w. POA?





Reason for rulemaking

Objectives:

- develop criteria for production and release of parts proportionate to the potential impact on safety as determined in the design certification process
- create a parts classification for commercial parts, allowing an installer to install commercial parts on a type- certificated product without having to obtain parts manufactured under a POA.
- develop criteria for the acceptance of parts and appliances with different production background for installation in certificated aircraft;
- ...without eliminating existing alleviations for GA.



Disclaimer:

- What follows in this presentation reflects ongoing concept under consideration in the course of internal discussions for the preparation of the NPA.
- Since discussion are still 'ongoing', the next slides cannot be considered as the position of the Agency in the matter.



Rulemaking proposal: Concept

- 1) The TC holder (or STC holder, repair design approval holder...) assess how safety critical the parts are...
- 2) ...and defines 'criticality levels' for the parts.
- 3) The rule establishes minimum manufacturing standards for the different criticality levels.
- 4) Depending on the manufacturing standards that the production organisations fulfils, the organisation may/may not manufacture certain parts and release them using different documents (e.g. CoC).
 - The highest manufacturing standard is POA (or 21.F) → EASA Form 1
 - Other standards rely on industry recognition
- 5) TCH publishes 'criticality levels' of parts to aircraft owners (and MROs).
- 6) Maintenance organisations can verify that documentation accompanying the new part is adequate and install them.



Rulemaking proposal: criticality levels

Design holder defines Criticality Levels (CL) for the parts:

CL I for parts where a failure would:

- (i) cause a large reduction in functional capabilities or safety margin, or
- (ii) cause serious or fatal injury to an occupant, or
- (iii) for the flight crew cause physical distress or excessive workload impairs ability to perform tasks

CL II for parts where a failure would:

- (i) cause a significant reduction in functional capabilities or safety margin, or
- (ii) cause physical distress to passengers possibly including injuries, or
- (iii) for the flight crew cause a physical discomfort or significant increase in workload.

CL III for parts where a failure would:

- (i) cause a slight reduction in functional capabilities or safety margin, or
- (ii) cause physical discomfort for passengers, or
- (iii) for the flight crew cause a slight increase in workload or use of emergency procedures.

CL IV for parts where a failure would:

- (i) have no effect on the aircraft operational capabilities or safety, or
- (ii) cause no inconvenience for passengers, or
- (iii) have no effect on flight crew.

Despite the classification above, the TCH decide not to conduct the assessment of criticality levels. This implies that all parts are manufactured by POA (or 21.F), i.e. EASA Form 1



Rulemaking proposal: criticality levels part of design

The proposal considers that the design holder assess the criticality of the parts, and it can only be established by the design holder.

Also EASA should be involved to guarantee that the criteria for assessment of criticality is respected.

To achieve this, the criticality levels would be proposed as being part of the type design... and changes to it would be 'changes to type design'.

NPA would allow that DOA are empowered to assess criticality levels (privilege: no agency involvement for criticality level assessment)

Design approval holder is responsible that the design meets the certification basis. This is shown by the approval certificate (TC/STC etc.)

21.A.31 Type design

- (a) The type design shall consist of:
1. the drawings and specifications...;
 2. information on materials and processes and on methods of manufacture and assembly of the product necessary to ensure the conformity of the product;



Rulemaking proposal: manufacturing standards

Safety significance (criticality levels)	Production Standard	production control	Part acceptance requires
Level I	Aviation (Part-21)	Aviation Authority	Form 1
Level II	Aviation (not Part-21)	Other party	CofC
Level III	Non-aviation	Other party	CofC
Level IV	Unknown	Unknown	Owner

21.Q – Parts marking requires also to be amended, so not all parts are marked with EPA...



Rulemaking proposal: implications

Other considerations :

- 1) Under consideration for the NPA: In special cases, EASA may accept a request for 'criticality level' classification from a third party.

- 2) Potential consequence: Once the rule would be adopted, the BASA approach for acceptance of foreign new components could be reconsidered.



Rulemaking proposal: Conclusion

- * The rulemaking task will introduce rule changes to allow installation during maintenance of new parts without a Form 1 or equivalent. It will impact Part-21(*), Part-M and Part-145(**)
- * No entry-into-force difficulties.
- * NPA is under internal consultation. Foreseen for publication in the coming weeks.

(*) – Parts and appliances

(**) - Components



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Questions/Comments ??

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