

CAT A MRO Seminar Part 145 Update and Hot Topics September 2019



Tim Drinkwater
Fixed Wing Maintenance
Principal Airworthiness Surveyor

- Agenda
- Rule Changes and Rules AMC update
- Revised 'IN' zero hours and contractors refresher.
- Maintenance away from approved location
- Essential Elements
- Component maintenance
- PMA parts

Civil Aviation Authority website - info

I am a ... Browse by subject Our work

Part 145 holders guidance

Regulation, policy and guidance to support Part 145 approval holders

Home / Commercial Industry / Aircraft / Airworthiness

[f](#) [t](#) [in](#) [p](#) [s](#)

- Airworthiness
 - Engineer licences
 - Organisation and maintenance programme approvals
 - Aircraft equipment
 - Certificates and permits
 - Continuing airworthiness
 - Exemptions
 - Flight manuals and type certificates
 - Grounded aircraft
 - Modifications
 - Approval information and guidance
 - Maintenance standards Improvement initiative
 - Guidance for Part 145 approval holders
 - Guidance for Part 147 approval holders
 - Guidance for Part M Subpart G approval holders
 - Guidance for Part 21 Subpart G approval holders
 - Finding level and safety severity guidance
 - Root cause analysis
 - Seminars

Part 145 Maintenance Organisation Approval holders provide maintenance services in accordance with Commission Regulation (EU) No 1321/2014 Implementing Rules, Annex 2

This page includes details and links to regulation, policy and guidance both the CAA and EASA. It will provide approval holders resources to ensure they remain compliant with not only the regulations but also UK policy.

Guidance material provides interpretation or amplify in greater detail certain areas or aspects of regulation and/or policy to allow an approval holder to fully implement quality systems which remain compliant and perform well.

Alerts and notifications

Tailored news, notifications and alerts from the CAA, including alerts issue in the last 12 months are available though [SkyWise](#).

Policy

- Maintenance Organisation Exposition (MOE) should be constructed using EASA document UG.CAO.00024 and associated CAA guidance. Background information regarding policy of [Initial/Changes to Airworthiness Organisation Expositions](#)
- Part 145 Loss of Capability - Part 145 organisations the actions that may be taken by the CAA where it is identified that an organisation is temporarily unable to fulfil the Part 145 requirements for a particular product, part, appliance or process listed on its approval certificate.
- Part 145 Occasional and Temporary Line Stations - Sets out what the CAA considers as a Part 145 occasional or temporary line station, how they may be established and the periods of time that they may remain in place.
- Acceptance of maintenance tasks carried out by pilots - Part 145 caters for certain maintenance tasks to be carried out by a suitably qualified pilot. AMC to Part 145.A.30(j)4 lists various items which a qualified pilot may be issued an Authorisation to carry out. Tasks which relate to section 2(i)e require specific agreement from the competent authority
- Part 145 Maintenance Staff Employment Status - to enable Part-145 organisations to establish the employment status of staff engaged on zero hours contracts for the purposes of Part 145.A30(d). This Information Notice provides guidance to enable Part-145 organisations to establish the employment status of staff engaged on zero hours contracts and those engaged indirectly for the purposes of Part 145.A30(d).
- Part 145 Applicability of AMC2 145.A.50(d) and Certification of Used Aircraft Components - clarifies the use of AMC2 145.A.50(d) so that the competent authority, installers and operators have confidence that used aircraft components have been satisfactorily removed from the aircraft, inspected, assessed and tested, as necessary, before being recertified and made eligible for installation on an aircraft registered in an EASA Member State.

There have been various interpretations of the requirements which at times have led to organisations not being fully prepared or capable of providing the scope of work that they have applied for or have been approved to provide.

The purpose of this policy note is to remove ambiguity about what the UK CAA expects of an organisation applying for Part 145 approval or wishing to continue to hold Part 145 approval.

- Facilities (145.A.25)
- Maintenance Data (145.A.45)
- Tooling and Equipment (145.A.40)
- Certifying staff and Manpower Resources (145.A.30, 145.A.35)
- Maintenance Organisation Exposition (145.A.70)
- Line Maintenance
- Major repairs and/or major modifications:

Related Information

- Regulations
- Guidance
- Further reading

- EASA Regulations (Basic Rule, Implementing Rules, AMC & GM Material)
- The Air Navigation Order 2016 (ANO) and Regulations
- CAP 747 Mandatory Requirements for Airworthiness

Change of Address

- Aviation House,
- Beehive Ring Road
- Crawley,
- West Sussex
- RH6 0YR.
- More information is available on [our website](#).

Recent changes not in eRules 2019/1384

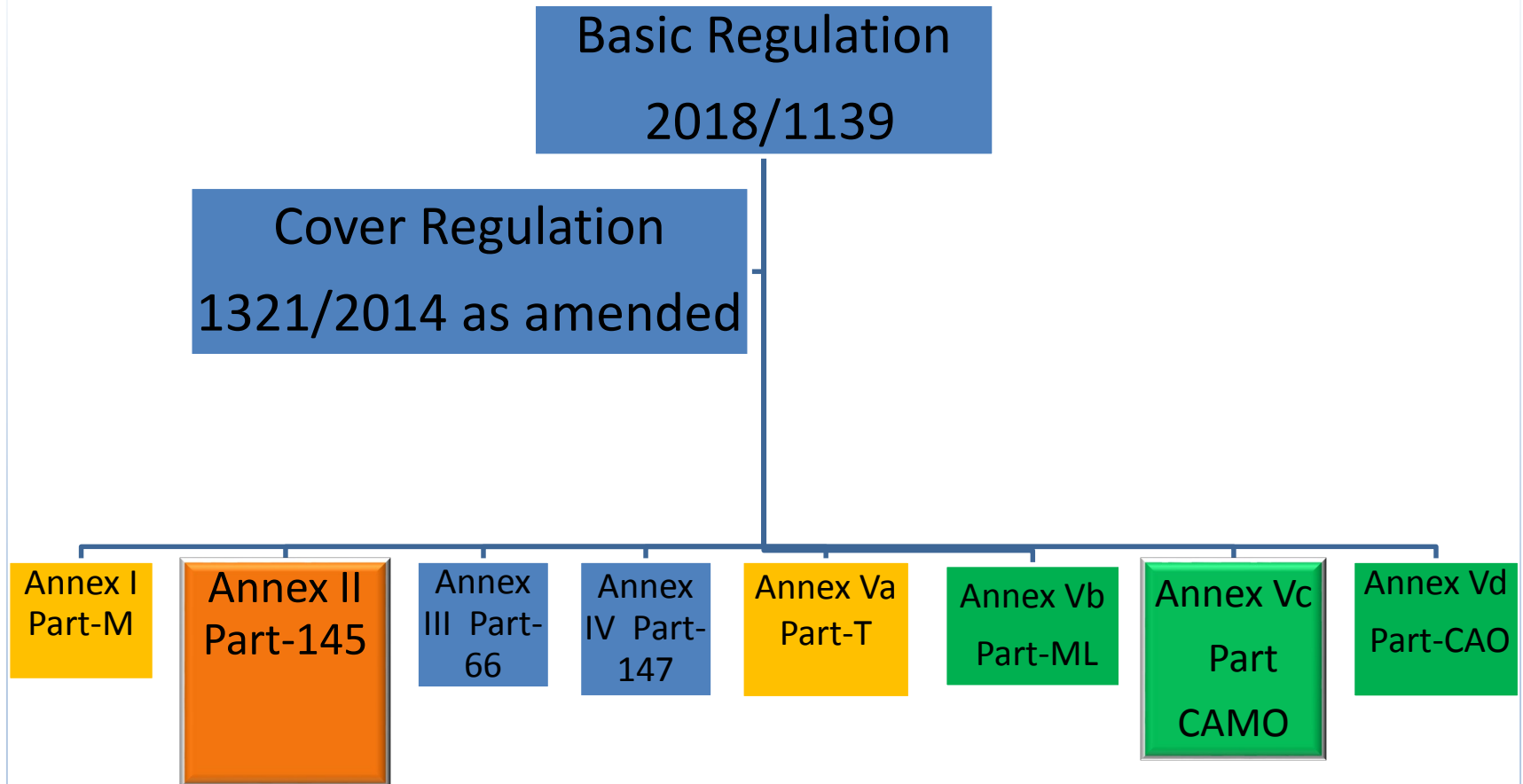


- Commission Implementing Regulation (EU) 2019/1384 amending Regulations (EU) No 965/2012 and (EU) No 1321/2014 as regards the use of aircraft listed on an air operator certificate for non-commercial operations and specialised operations, the establishment of operational requirements for the conduct of maintenance check flights, the establishment of rules on non-commercial operations with reduced cabin crew on board and introducing editorial updates concerning air operations requirements

2019-1383

- In force already
- Applies from February 2020
- Major structural changes to 1321
- Likely you have seen this before
- Relevant boxes for Part 145 shown
- For AOC complex aircraft Part CAMO will be 'new' but the same relationship

1321 Revised Structure – Part 145



What has 2019/1383 changed for Part 145?

- Minor editorial changes but also
- Part 145.A.55 Storage of records
- Current words
- The organisation shall provide a copy of each certificate of release to service to the aircraft operator, together with a copy of any specific repair/modification data used for repairs/modifications carried out.

New

- The organisation shall provide a copy of each certificate of release to service to the aircraft owner/operator, together with a copy of any detailed maintenance record associated with the work carried out and necessary to demonstrate compliance with point M.A.305.
- This relates to the records being those required by the Part CAMO that has a contract with you, it is different from what is currently required.

Changes now in eRules since last seminar

- Rule 2018/1142 & AMC ED 2019/009R
- The rule and AMC changes are now established in eRules
- Summary of main points for Part 145
- These should now be filtering through into Audits, Expositions and procedures
- Effective 05 March 2019

RULE 2018/1142 & AMC ED 2019/009R



- Minor change to names - Equipment and Tools and ~~Material~~
- ~~Acceptance of Components~~
- Minor change to reflect addition of B2L and L license.
- Major changes to regulation references and additional GM in line with current Part M.
- GM added for Unserviceable Components
- New AMC for Material
- New AMC for Incoming inspection installation and mutilation.
- All in line with current Part M.

IMPORTANT NOTE

- 145.A.42(b) has been deleted from the regulation and there is no specific mention in the new AMC regarding the 145 checking for AD's in "Components"
- *Part 45.A.42(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.*
- The Regulation for Certification of Maintenance 145.A.50(a) and associated AMC Part 145.A.50(a) means a Part 145 organisation is still responsible for the Parts they maintain and fit are compliant and no AD's are due or applicable.
- Additionally 145.A.45 (a) and (b)2 states the organisation shall hold the data listed therein and AD's data for the component is included.

Revised SkyWise on employment status

- Update to IN-2017/015
- Why?
- Changes to UK legislation with regards to the GIG* economy
- *a labour market characterized by the prevalence of short-term contracts or freelance work as opposed to permanent jobs.



Access to information CAA website

Policy

- Maintenance Organisation Exposition (MOE) should be constructed using EASA document [UG.CAO.00024](#) and associated [CAA guidance](#). Background information regarding policy of [Initial/Changes to Airworthiness Organisation Expositions](#)
- [Part 145 Loss of Capability](#) - Part 145 organisations the actions that may be taken by the CAA where it is identified that an organisation is temporarily unable to fulfil the Part 145 requirements for a particular product, part, appliance or process listed on its approval certificate.
- [Part 145 Occasional and Temporary Line Stations](#) - Sets out what the CAA considers as a Part 145 occasional or temporary line station, how they may be established and the periods of time that they may remain in place.
- [Acceptance of maintenance tasks carried out by pilots](#) - Part 145 caters for certain maintenance tasks to be carried out by a suitably qualified pilot. AMC to Part 145.A.30(j)4 lists various items which a qualified pilot may be issued an Authorisation to carry out. Tasks which relate to section 2(i)e require specific agreement from the competent authority
- [Part 145 Maintenance Staff Employment Status](#) - to enable Part-145 organisations to establish the employment status of staff engaged on zero hours contracts for the purposes of Part 145.A30(d). This Information Notice provides guidance to enable Part-145 organisations to establish the employment status of staff engaged on zero hours contracts and those engaged indirectly for the purposes of Part 145.A30(d).

Part 145 employment status

31st October 2018 SW2018/220

Part 145 – Maintenance Staff Employment Status

CAA has published its [revised policy on Part-145 maintenance staff employment status](#), which provides guidance and is intended to enable Part-145 organisations to identify the employment status of staff engaged on zero hours contracts and those engaged indirectly.

SW2018/220

Category: [Maintenance / Engineers](#)

Updated IN



Civil Aviation Authority Information Notice Number: IN-2017/015



Issued: 29 October 2018

Part-145 – Maintenance Staff Employment Status

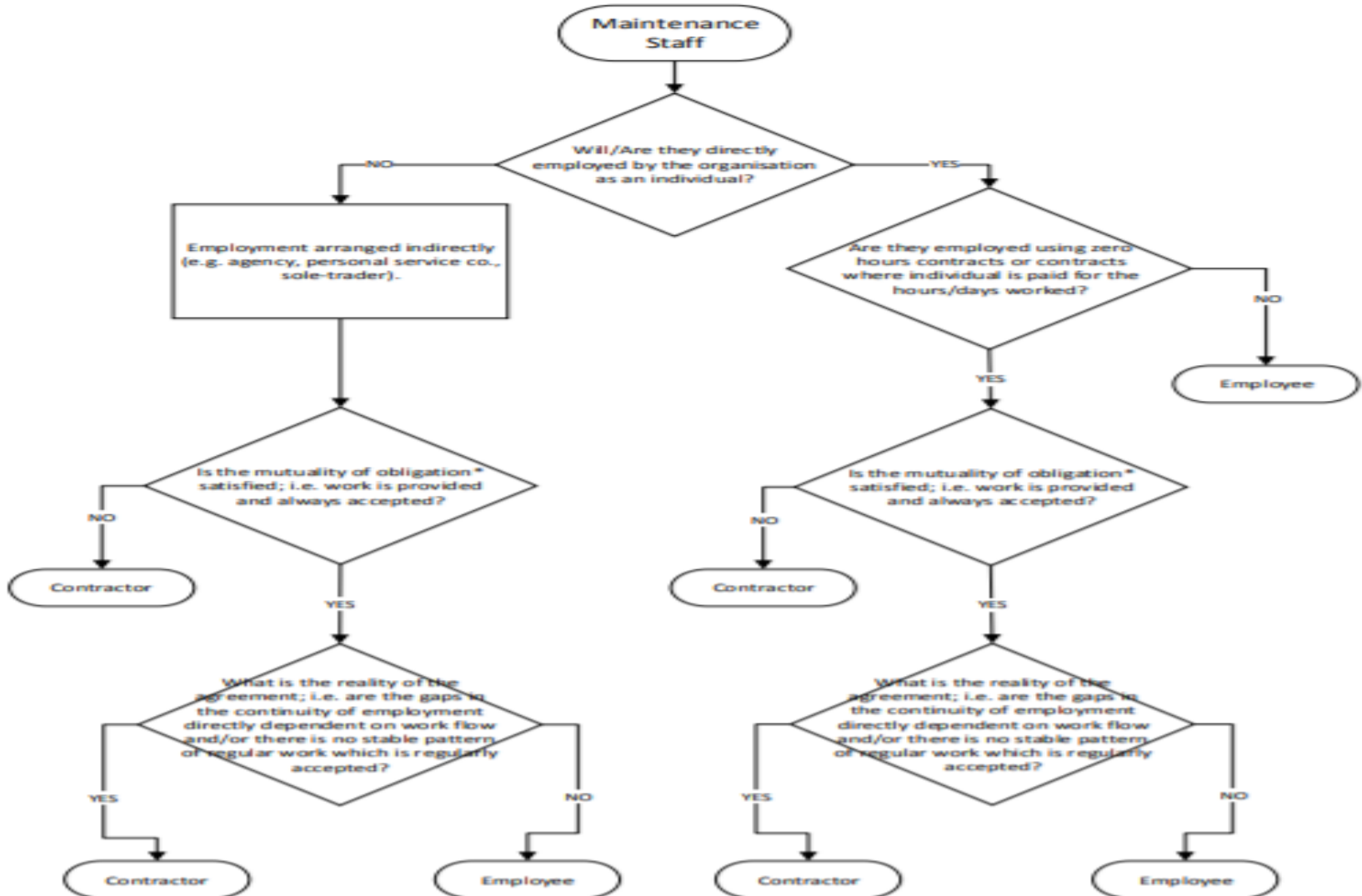
This Information Notice contains information that is for guidance and/or awareness.

Recipients are asked to ensure that this Information Notice is copied to all members of their staff who may have an interest in the information (including any 'in-house' or contracted maintenance organisations and relevant outside contractors).

Applicability:	
Aerodromes:	Not primarily affected
Air Traffic:	Not primarily affected
Airspace:	Not primarily affected
Airworthiness:	EASA Part-145 Organisations
Flight Operations:	Not primarily affected
Licensed/Unlicensed Personnel:	Not primarily affected

The flowchart

**Categorisation of maintenance staff employment status for the purpose of Part-145
Flowchart**



* Mutuality of obligation means the employee is obliged to work and the employer is obliged to provide work and pay for it

Detail

- 2.6 Where there is a direct contractual relationship between the individual and the Part-145 organisation, including zero hours contracts, two key principles need to be satisfied to determine if these individuals are an employee. For the purposes of Part-145.A.30(d) only, an individual who is described in paragraph 2.5 above may fall within the scope of this paragraph if the following two key principles are established:
 - i) In all cases, the individual is required to report for work when requested, thus preserving the **mutuality of obligation** principle where the employee is obliged to work and the employer is obliged to provide work and pay for it; and
 - ii) If (i) is satisfied, then the **reality of the agreement** between the organisation and the individual needs to be examined to establish that....

Detail

- a) there is a **stable pattern of regular work** which is **regularly accepted**, that is supported by the man-hour plan and does not give rise to gaps in the continuity of employment, the reality of the agreement between the individual and the Part-145 organisation will be considered to be one of employment. Individuals meeting these criteria will be defined as an employee under Part-145.A.30(d), regardless of their status under UK employment law.
- b) Conversely, where it is established that there are **gaps in the continuity of employment**, other than related to time taken off for holidays or sickness, and the gaps are directly dependent on irregular and unpredictable work flow, the reality of the agreement will be considered to be as one of provision for service. These individuals will be defined as a contractor under Part-145.A.30(d), irrespective of their status under UK employment law.
- **Subject also to complying with the rest of Part 145, Manpower Planning, HF, Training etc.**

Maintenance away from approved location

- What is an approved location?
- It is the site where maintenance is normally carried out.
145.A.75 Privileges of the organisation
- In accordance with the exposition, the organisation shall be entitled to carry out the following tasks:
- (a) Maintain any aircraft and/or component for which it is approved at the locations identified in the approval certificate and in the exposition;

Maintenance at an approved location

- (d) Maintain any aircraft and/or component for which it is approved at a location identified as a line maintenance location capable of supporting minor maintenance and only if the organisation exposition both permits such activity and lists such locations



Away from approved location.....

- c) Maintain any aircraft or any component for which it is approved at any location subject to the need for such maintenance arising either from the unserviceability of the aircraft or from the necessity of supporting line maintenance, subject to the conditions specified in the exposition;



Maintenance away from approved location

- Conditions process is in the MOE
- As such, usually accepted by the Civil Aviation Authority
- Part 145.A.75 title is 'privilege'
- Not all requests are granted
- Defects being carried and then requested to repair using a Line Approval at a remote location when the aircraft was on the ground

Essential Elements CAA explanation

- 'Essential Elements of Part 145' now explained on the website
- Example given of facilities on next slide
- Subjects include
 - Maintenance Data
 - Tooling
 - Certifying staff
 - MOE
 - Line Maintenance
 - Major Repairs and Modifications

Essential Elements

There have been various interpretations of the requirements which at times have led to organisations not being fully prepared or capable of providing the scope of work that they have applied for or have been approved to provide.

The purpose of this policy note is to remove ambiguity about what the UK CAA expects of an organisation applying for Part 145 approval or wishing to continue to hold Part 145 approval.

Facilities (145.A.25)

Any Part 145 organisation must have facilities commensurate with the scope of work for which it is approved to provide.

Line Maintenance providers are expected to have an office, storage facilities and, for larger providers, possibly a workshop. These facilities must be airside or at the very least within a short drive. The distance should be reasonable and appropriate for the activity being provided from the airside area. This is to ensure personnel from the organisation are not operating remotely from the approved facility.

Base maintenance providers must have a hangar which accommodates the aircraft types for which they are approved to maintain with offices, storage facilities and workshops as required. The aircraft type must be able to be completely enclosed by the facility. It is not acceptable for the aircraft tail to be outside the hangar while performing base maintenance. Work may be performed outside the hangar subject to procedures being approved in the Organisations MOE.

Maintenance Data (145.A.45)

Tooling and Equipment (145.A.40)

Certifying staff and Manpower Resources (145.A.30, 145.A.35)

Maintenance Organisation Exposition (145.A.70)

Line Maintenance

Major repairs and/or major modifications;

Related Information

Regulations

Guidance

Further reading

- [EASA Regulations \(Basic Rule, Implementing Rules, AMC & GM Material\)](#)
- [The Air Navigation Order 2016 \(ANO\) and Regulations](#)
- [CAP 747 Mandatory Requirements for Airworthiness](#)

Components



[Can't see this email? View it online](#)



Categories: Airline operations, Airline safety, Maintenance engineers, Offshore helicopter

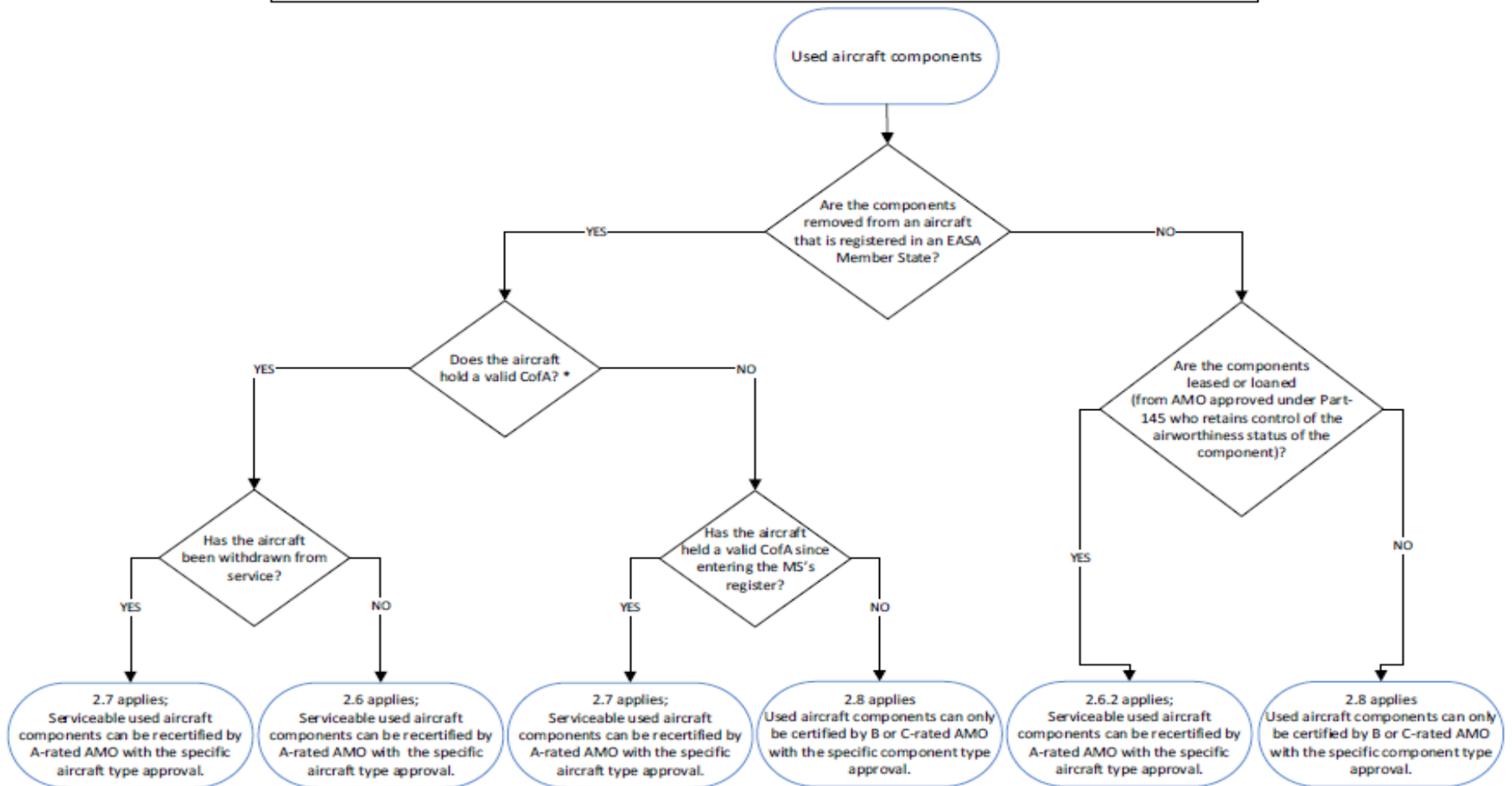
Part 145 – Applicability of AMC2 145.A.50(d) and Certification of Used Aircraft Components

We have published [guidance on the applicability of AMC2 145.A.50\(d\) and Certification of Used Aircraft Components for Part 145 holders.](#)

The purpose of this policy is to clarify the use of AMC2 145.A.50(d) so that the competent authority, installers and operators have confidence that used aircraft components have been satisfactorily removed from the aircraft, inspected, assessed and tested, as necessary, before being recertified and made eligible for

Flowchart explanation

Part 145 - Applicability of AMC2 145.A.50(d) and Certification of Used Aircraft Components



* Paragraphs 2.6 and 2.7 of the AMC2 state 'aircraft components removed from a Member State registered aircraft'; In this context this means an aircraft issued with an EASA CofA as indicated in the decision box. A valid EASA CofA confirms that the aircraft has entered EASA system by means of conforming to its Type Design, as approved or validated by EASA, and any changes thereto and has been maintained in accordance with a maintenance programme approved by the competent authority of a Member State.

Key element

- 'Paragraphs 2.6 and 2.7 of the AMC2 state
- 'aircraft components removed from a Member State registered aircraft',
- In this context this means an aircraft issued with an EASA C of A as indicated in the decision box.
- A valid EASA C of A confirms that the aircraft has entered EASA system by means of conforming to its Type Design, as approved or validated by EASA, and any changes thereto and has been maintained in accordance with a maintenance programme approved by the competent authority of a Member state

PMA (Parts Manufacturer Approval) Parts ~ awareness

- Is a combined design and production approval for modification and replacement articles. It allows a manufacturer to produce and sell these articles for installation on type certificated products



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

- 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;
- Bilateral means – even if you do not have an FAA approval – the answer lies in the Technical Implementation Procedures (TIP)

US-EU TIP 3.3.4 PMA Parts

- EASA shall directly accept all FAA PMA approvals, without further showing, for modification and/or replacement parts for installation on products certified or validated by EASA in the following cases:
 - The PMA part is not a “critical 3.3.4.1 component” (see definition, paragraph 1.13.16) and the PMA design was approved
 - 3.3.4.2 The PMA part conforms to design data obtained under a licensing agreement from the TC or STC holder according to 14 CFR section 21.303 and the TC or STC has been validated by EASA.
 - 3.3.4.3 The PMA holder is the holder of an FAA-issued STC and an:
 - (a) Equivalent EASA-issued STC;

Terminology quiz?

- Do you understand the application of a complex maintenance task including critical steps in relation to a critical maintenance task that includes a critical part, in your answer include any critical safety items, and reference and critical tasks/aspects from the MEL?
- Would that be different if it involved a critical design feature, or a flight safety critical component?
- Would the end result be different if it was an identical maintenance task?
- Will that result have an impact on your critical assessment of the AMP?
- What is a CDCCL?
- What is critical equipment?
- What is a non critical propulsion control?
- Did you know your aircraft's critical mach number, and critical c of g?

Thanks for listening
Any questions?