Workshop

Kritiska underhållsuppgifter

Återkoppling

Presentatörer
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TRANSPORT STYRELSEN

Återkommande frågor

1) Kritiska underhållsuppgifter / Riskminimering

2) Vem kan göra oberoende inspektion?

3) Filma och fotografera, är det ett alternativ ?

4) CAMO behöver bli bättre på att identifiera och beställa kritiska underhållsuppgifter!

5) Räcker det inte med en dubbelinspektion?

Kritiska underhållsuppgifter

145.A.48 Performance of maintenance

Regulation (EU) 2015/1536

The organisation shall establish procedures to ensure that:

(a) after completion of maintenance a general verification is carried out to ensure that the aircraft or component is clear of all tools, equipment and any extraneous parts or material, and that all access panels removed have been refitted;

(b) an error capturing method is implemented after the performance of any critical maintenance task;

(c) the risk of multiple errors during maintenance and the risk of errors being repeated in identical maintenance tasks are minimised; and,

(d) damage is assessed and modifications and repairs are carried out using data specified in point M.A.304.

Kritiska underhållsuppgifter

AMC1 145.A.48(b) Performance of maintenance

ED Decision 2016/011/R

The procedure should identify the error-capturing methods, the critical maintenance tasks, the training and qualification of staff applying error-capturing methods, and how the organisation ensures that its staff is familiar with critical maintenance tasks and error-capturing methods.

AMC2 145.A.48(b) Performance of maintenance

ED Decision 2016/011/R

CRITICAL MAINTENANCE TASKS

(a) The procedure should ensure that the following maintenance tasks are reviewed to assess their impact on flight safety:

(1) tasks that may affect the control of the aircraft flight path and attitude, such as installation, rigging and adjustments of flight controls;

(2) aircraft stability control systems (autopilot, fuel transfer);

(3) tasks that may affect the propulsive force of the aircraft, including installation of aircraft engines, propellers and rotors; and

(4) overhaul, calibration or rigging of engines, propellers, transmissions and gearboxes.

Riskminimering

145.A.48 Performance of maintenance

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Riskminimering

AMC 145.A.48(c) Performance of maintenance

ED Decision 2016/011/R

The procedures should be aimed at:

(a) minimising multiple errors and preventing omissions. Therefore, the procedures should specify:

(1) that every maintenance task is signed off only after completion;

(2) how the grouping of tasks for the purpose of sign-off allows critical steps to be clearly identified; and

(3) that work performed by personnel under supervision (i.e. temporary staff, trainees) is checked and signed off by an authorised person;

(b) minimising the possibility of an error being repeated in identical tasks and, therefore, compromising more than one system or function. Thus, the procedures should ensure that no person is required to perform a maintenance task involving removal/installation or assembly/disassembly of several components of the same type fitted to more than one system, a failure of which could have an impact on safety, on the same aircraft or component during a particular maintenance check. However, in unforeseen circumstances when only one person is available, the organisation may make use of reinspection as described in point (d) of AMC4 145.A.48(b).

Vem kan göra oberoende inspektion?

AMC 4 145.A.48(b)

(b) Qualifications of persons performing independent inspections

The organisation should have procedures to demonstrate that the 'independent qualified person' has been trained and has gained experience in the specific inspection to be performed. The organisation could consider making use of, for example:

(1) staff holding a certifying staff or support staff or sign-off authorisation or equivalent necessary to release or sign off the critical maintenance task;

(2) staff holding a certifying staff or support staff or sign-off authorisation or equivalent necessary to release or sign off similar task in a product of similar category and having received specific practical training in the task to be inspected; or

(3) a commander holding a limited certification authorisation in accordance with 145.A.30(j)(4) and having received adequate practical training and having enough experience in the specific task to be inspected and on how to perform independent inspection.

Vad kontrolleras vid oberoende inspektion

(c) How to perform an independent inspection

An independent inspection should ensure correct assembly, locking and sense of operation. When inspecting control systems that have undergone maintenance, the independent qualified person should consider the following points independently:

(1) all those parts of the system that have actually been disconnected or disturbed should be inspected for correct assembly and locking;

(2) the system as a whole should be inspected for full and free movement over the complete range;

(3) cables should be tensioned correctly with adequate clearance at secondary stops;

(4) the operation of the control system as a whole should be observed to ensure that the controls are operating in the correct sense;

(5) if different control systems are interconnected so that they affect each other, all the interactions should be checked through the full range of the applicable controls; and

(6) software that is part of the critical maintenance task should be checked, for example: version, compatibility with aircraft configuration.

Filma och fotografera, är det ett alternativ?

Det är ok att filma och fotografera om ni har en godkänd procedur för detta i er MOE.

Er procedur granskas och godkänns om er metod är lika bra eller bättre än § och AMC.

Digitala signaturer

CAMO behöver bli bättre på att identifiera/ beställa kritiska underhållsuppgifter

Kravet gällande identifiering av kritiska underhållsuppgifter finns idag endast för underhållsverkstäder (P145 och M.F)

Räcker det inte med en dubbelinspektion?

När vi pratar om kritiska underhållsuppgifter så finns det ingenting i reglerna som heter ”dubbelinspektion”.

Däremot nämns det i samband med ”riskminimering”

145.A.48 Performance of maintenance

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Räcker det inte med en dubbelinspektion?

GM 145.A.48(c) Performance of maintenance

ED Decision 2016/011/R

To minimise the risk of multiple errors or errors being repeated, the organisation may implement:

– procedures to plan the performance by different persons of the same task in different systems;

– duplicate inspection or re-inspection procedures.

TS feedback

AMC för kritiska underhållsuppgifter kom ut för sent

Web seminarium

Gör mail utskick vid regeländring

- *prenumerationstjänst*

Fångstmetoder

Funktionskontroll

Fotografering

Motorkörning

Operationell test

Oberoende inspektion

Återinspektion

Kontrollflygning

Utbildning av personal

Arbetsplatsträffar

HF utbildning med specialinriktning kring kritiskt underhåll

”Continuation training”

Workshop

Company training