



# Critical Task

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Sjö- och luftfartsavdelningen

Enheten för operatörer, fartyg och luftfartyg

Sektionen för underhålls- och tillverkningsorganisationer

- Commission Regulation (EU) 2015/1536 was issued on of 16 September 2015.

- It introduces **145.A.48 Performance of Maintenance** for maintenance organisations.
- **And 145.A.65(b)** adjusted to be consistent with 145.A.48.

## **145.A.48 Performance of maintenance**

### **145.A.48(b)**

an error capturing method is implemented after the performance of any critical maintenance task.

## **M.A.402 Performance of maintenance**

### **M.A.402(h)**

ensure that an error capturing method is implemented after the performance of any critical maintenance task;

## Article 2 – Definitions

(n) “**critical maintenance task**” means a maintenance task that involves the assembly or any disturbance of a system or any part on an aircraft, engine or propeller that, if an error occurred during its performance, could directly endanger the flight safety.

## Article 2 – Definitions

**kritisk underhållsåtgärd "**: en underhållsåtgärd som innebär att montering eller någon störning av ett system eller någon del på ett flygplan, motor eller propeller som, om ett fel uppstod under dess operation, kan direkt äventyra flygsäkerheten.

## **MOE 2.23 Control of Critical Tasks**

This chapter shall identify the list of critical tasks or a process to define critical maintenance tasks.

## MOE 2.28 Production planning procedures

Ref AMC 145.A.47

When establishing the production planning.

Try to planned critical task during period when staff are likely to be most alert.

## MOE L 2.7 Control of Critical Tasks



**Don't forget.**

**Competence assessment procedure**

- Understanding Critical Task?
- Ability to identify and properly plan performance of critical task.
- ***Ref: GM 2 145.A.30(e)***

## MOE 2.25

### Procedures to detect and rectify maintenance errors

- Error capturing methods chosen by the organization?

## MOE 2.25

### Procedures to detect and rectify maintenance errors

#### **AMC 145.A.65(b)**

Safety and quality policy, maintenance procedures and quality system

- Independent inspections
- Operational check
- Leak check
- Engine run/full power assurance test
- Check flight

## What is the difference in ?

- Independent Inspection
- Re-inspection
- Double Inspection
- Required Inspection Item (RII)

## What is the difference in ?

- **Independent Inspection:** (AMC M.A.402(a))
- **Re-inspection:** AMC 145.A.65(b)
- **Double Inspection:** No description in Part 145/Part M
- **Required Inspection Item (RII):** FAA expression

If you use terms other than what is in the rule or in the AMC.

It must be defined clearly so all parties understand the content.

This applies to both Part 145 and CAMO (customer)

# Can a lockwire/safety wire be a critical task?



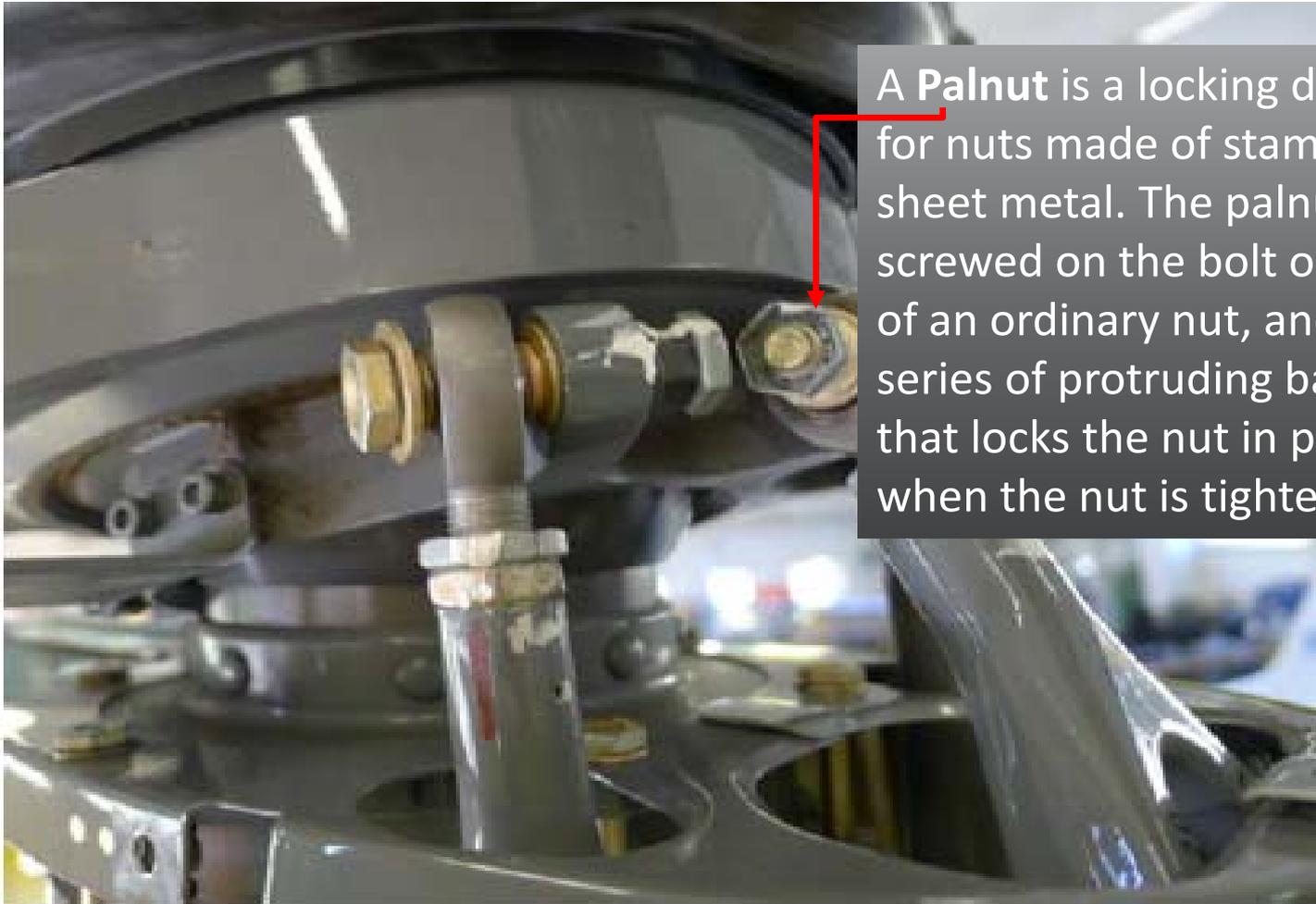


# Loose and Unsecured B-Nut, EC130B4.



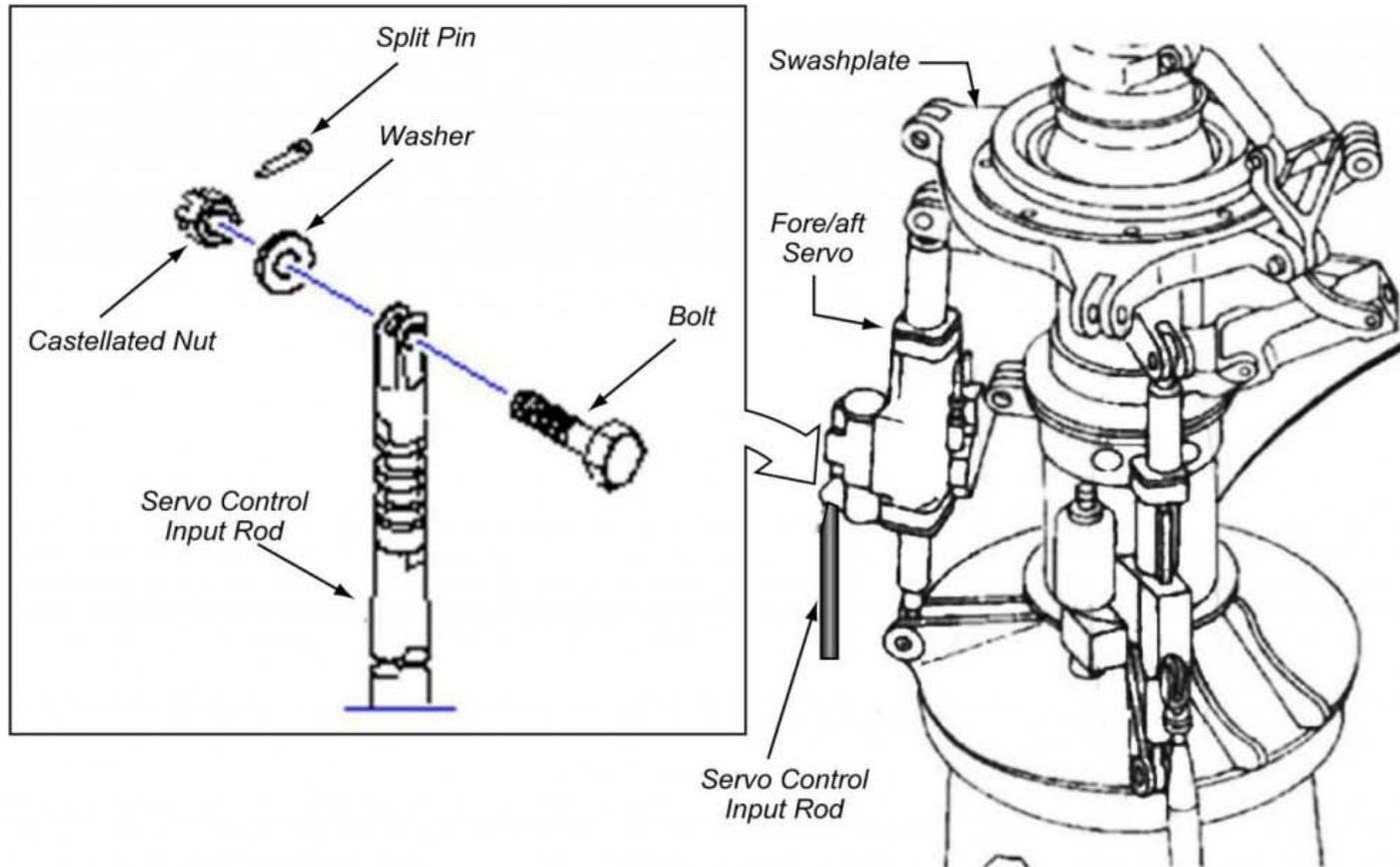
- Can a palnut/self locking nut or a split pin be a critical task?





A **Palnut** is a locking device for nuts made of stamped sheet metal. The palnut is screwed on the bolt on top of an ordinary nut, and has a series of protruding barbs that locks the nut in place when the nut is tightened.

# Airbus AS350



- Missing palnut
- Missing split pin or improper installation of split pin
- Using wrong type of split pin, aluminium instead of stainless steel.
- Reuse of degraded self-locking nuts

If we have any of those scenarios, we have eliminated one defence line.

**Why is this serious?**

CS-27 Amendment 3.pdf - Google Chrome  
file:///G:/To%20do/Critical%20task/CS-27%20Amendment%203.pdf

Annex to ED Decision 2012/021/R

**European Aviation Safety Agency**

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**Certification Specifications  
for  
Small Rotorcraft**

**CS-27**

Amendment 3  
11 December 2012

CS-27 Amendment 3.pdf c2e8b5d4-962b-4c0...jpg 7284a9b6-ca37-4fd4...jpg Visa alla nedladdningar...

## CS 27.607 Fasteners

Each removable bolt, screw, nut, pin, or other fastener whose loss could jeopardise the safe operation of the rotorcraft must incorporate two separate locking devices.

### *AMC M.A.402(a)*

The second independent competent person is not issuing a maintenance release therefore is not required to hold certification privileges. However they should be suitably **qualified** to carry out the inspection.

When work is being done under the control of an approved maintenance organisation the organisation should have procedures to demonstrate that the signatories have been **trained** and have gained **experience** on the **specific** control systems being inspected.

## M.A.402 Performance of maintenance

### *AMC M.A.402(a)*

4.3 Independent inspections should be carried out by at least two persons, to ensure correct assembly, locking and sense of operation. A technical record of the inspections should contain the signatures of both persons before the relevant CRS is issued.



## **I audit remark:**

No evidence of a independent inspection performed on a task no XXXX

## **Answer I got.**

Its no need to make a independent inspection after installation of a chip detectors. Since there is a poppet valve that closes if I forget to install the chip detector.

**Any comments from the audience**



# Critical task

Is this really new?

Critical task  
Or  
Not a critical task.

Who is responsible ?



# How does it look in real life



MPD ITEM NUMBER	ENGINE APPLICABILITY	TASK DESCRIPTION	TASK LIMITATIONS
72-120-01 / -02	CFMI Model CFM56-7B	Boroscope inspection of the left & right engine stage 1 through 9 HPC blades.	6000 FH/FC OOP Task – Stagger Inspection on each engine so both engines are not inspected at the same time <b>Duplicate Inspection &amp; Idle Leak Check required</b>
72-180-01 / -02	CFMI Model CFM56-7B	Boroscope inspection of the left & right engine combustion chambers.	1600 FC OOP Task – Stagger Inspection on each engine so both engines are not inspected at the same time <b>Duplicate Inspection &amp; Idle Leak Check required</b>
72-190-01 / -02	CFMI Model CFM56-7B	Boroscope inspection of the left & right engine double annular combustion chambers (if installed).	1600 FC OOP Task – Stagger Inspection on each engine so both engines are not inspected at the same time <b>Duplicate Inspection &amp; Idle Leak Check required</b>
72-200-01 / -02	CFMI Model CFM56-7B	Boroscope inspection of the left & right engine HPT nozzles.	1600 FC OOP Task – Stagger Inspection on each engine so both engines are not inspected at the same time <b>Duplicate Inspection &amp; Idle Leak Check required</b>
72-210-01 / -02	CFMI Model CFM56-7B	Boroscope inspection of the left & right engine HPT blades.	1600 FC OOP Task – Stagger Inspection on each engine so both engines are not inspected at the same time <b>Duplicate Inspection &amp; Idle Leak Check required</b>
72-320-01 / -02	CFMI Model CFM56-7B	Detailed inspection of left & right engine AGB/TGB and aft & forward sump magnetic chip detector for particles (for engines with MCD's) or interrogate DMS for chip detector status (for engines with debris monitoring system)	500 FH A1 Check Task <b>Duplicate Inspection &amp; Idle Leak Check required</b> Explanatory note stating : This task is to be accomplished by using two different persons on the left & right side of the aircraft
73-010-01 / -02	CFMI Model CFM56-7B	Replace the left & right engine fuel filter.	6000 FH C1 Check Task <b>Duplicate Inspection &amp; Idle Leak Check required</b> Explanatory note stating : This task is to be accomplished by using two different persons on the left & right side of the aircraft

This AMP was approved ten years ago

## SUBPART B ACCOUNTABILITY

### **M.A.201(a)**

The owner is responsible for the continuing airworthiness of an aircraft and shall ensure that no flight takes place unless

1. the aircraft is maintained in an airworthy condition, and;

### **M.A.402 Performance of maintenance**

#### ***AMC M.A.402(a)***

#### **4. Independent inspections**

**4.1** The manufacturer's instructions for continued airworthiness should be followed when determining the need for an independent inspection.

## Summary

Part 145 is always responsible for its own process, regarding critical tasks and to implement a error capture method after the performance of any critical task.

If critical task is defined in aircraft maintenance programme, CAMO takes over some of the responsibility. CAMO need to ensure that the Part 145 org has capture and understand what to do with the critical tasks.

- **Effectively they are both accountable.**
- Part-145 to ensure the requirements are met and the Part-M to assure they are.



Helicopter EC130B4, accident in Norway.

<http://www.aibn.no/Luftfart/Avgitte-rapporter/2016-01>

Can it be the same accident here?

Or

Can you prevent it?





# Thanks for me