# Bakgrunds- och erfarenhetskrav SM/CMM (CAMO/145)

Del-CAMO.A.305(c) med tillhörande AMC Del-145.A.30(aa) med tillhörande AMC

Presentatör

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Sjö- och luftfartsavdelningen

Enheten för operatörer, fartyg och luftfartyg

Sektionen för teknisk operation



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# Competency

is a combination of individual skills, practical and theoretical knowledge, attitude, training, and experience.

#### Ref:

- GM1 to Annex II (Part-145) Definitions
   ED Decision 2022/011/R
- GM1 to Annex Vc (Part-CAMO) Definitions
   ED Decision 2022/011/R



# CAMO vs 145 - Regeln

#### **CAMO.A.305** Personnel requirements

(c) The person or persons nominated in accordance with points (a)(3) to (a)(5) and (b)(2) of point CAMO.A.305 shall be able to demonstrate relevant knowledge, background and satisfactory experience related to aircraft continuing airworthiness management and demonstrate a working knowledge of this Regulation. Such person(s) shall be ultimately responsible to the accountable manager. (a)(3): CAM

(a)(4): CMM

(b)(2): NPCA

(a)(5): SM

#### 145.A.30 Personnel requirements

(cc) The person or persons nominated in accordance with points (b), (c) and (ca) shall be able to demonstrate relevant knowledge, background and satisfactory experience related to aircraft or component maintenance and demonstrate a working knowledge of this Regulation.





## CAMO vs 145 – AMC1 för "NP's"

#### AMC1 CAMO.A.305(c) Personnel requirements

ED Decision 2022/011/R

KNOWLEDGE, BACKGROUND AND EXPERIENCE OF NOMINATED PERSON(S)

The person or persons nominated in accordance with points CAMO.A.305(a) and CAMO.A.305(b) should have:

- a) Praktisk erfarenhet och expertis i flygsäkerhetsstandard etc
- b) Mycket goda kunskaper operativa krav och procedurer etc
- c) Kunskap HF, EU-MS (SM, CM) & Annex 19
- d) #1 5 års relevant erfarenhet varav 2 från branschen/funktion
- e) #2 "Formell utbildning" Ingenjör <u>eller</u> teknikercert <u>eller</u>
  - #2 Kan ersättas med: 5 års erfarenhet från underhåll,
     CAMO eller auditering (utöver pkt d) eller
  - #2 Nytt Specifikt träningsprogram (SM/CMM)
- f) Goda kunskaper organisationens CAME
- g) Kunskap relevanta luftfartyg
- h) Kunskap underhållsmetoder
- i) Kunskap regler

#### AMC1 145.A.30(cc) Personnel requirements

ED Decision 2022/011/R

KNOWLEDGE, BACKGROUND AND EXPERIENCE OF NOMINATED PERSON(S)

The person or persons to be nominated in accordance with points (b), (c) and (ca) of point 145.A.30 should have:

- a) Praktisk erfarenhet och expertis i flygsäkerhetsstandard etc
- b) Kunskap HF, EU-MS (SM, CM)
- c) #1 5 års relevant erfarenhet varav 2 från branschen/funktion
- d) #2 "Formell utbildning" Ingenjör eller teknikercert eller
  - #2 Kan ersättas med: 2 års erfarenhet från underhåll,
     CAMO eller auditering (utöver pkt c) eller
  - #2 Nytt Specifikt träningsprogram (SM/CMM)
- e) Goda kunskaper organisationens MOE & Safety policy
- f) Kunskap relevanta luftfartyg
- g) Kunskap underhållsmetoder
- h) Kunskap regler
- i) Förmåga Språk och kommunikation



# #1 - Satisfactory experience

#### **AMC1 CAMO.A.305(c)**

(d) 5 years of relevant work experience, of which at least 2 years should be from the aeronautical industry in an appropriate position;

#### Relevant – Utgå från regeln:

CAMO.A.305(c) The person or persons nominated in accordance with points (a)(3) to (a)(5) and (b)(2) of point CAMO.A.305 shall be able to demonstrate relevant knowledge, background and satisfactory experience related to aircraft continuing airworthiness management and demonstrate a working knowledge of this Regulation. Such person(s) shall be ultimately responsible to the accountable manager.

## AMC1 145.A.30(cc)

**(c)** 5 years of **relevant work experience**, of which at least 2 years should be from the aeronautical industry in an appropriate position;

#### Relevant – Utgå från regeln:

145.A.30 (cc) The person or persons nominated in accordance with points (b), (c) and (ca) shall be able to demonstrate relevant knowledge, background and satisfactory experience related to aircraft or component maintenance and demonstrate a working knowledge of this Regulation.

## #2 – Bakgrund <u>eller</u> Ytterligare erfarenhet <u>eller</u> Specifikt träningsprogram

	"Alternativ"	AMC1 CAMO.A.305(c)-(e) - motsvarande för Del-145 är AMC1 145.A.30(cc)-(d)
	1 Bakgrund	a relevant engineering degree or an aircraft maintenance technician qualification with additional education that is acceptable to the competent authority.  'Relevant engineering degree' means an engineering degree from aeronautical, mechanical, electrical, electronic, avionics or other studies that are relevant to the maintenance and/or continuing airworthiness of aircraft/aircraft components;
eller	2 Ytterligare erfarenhet	The above recommendation may be replaced by 5(2) years of experience in addition to those already recommended by paragraph (d)/(c) above. These 5(2) years should cover an appropriate combination of experience in tasks related to aircraft maintenance and/or continuing airworthiness management and/or surveillance of such tasks;
eller	3 Specifikt tränings- programm (SM/CMM)	For the person to be nominated in accordance with point (a)(4) or (a)(5) of point CAMO.A.305 (point (c) or (ca) of point 145.A.30), in the case where the organisation holds one or more additional organisation certificates within the scope of Regulation (EU) 2018/1139 and that person has already an equivalent position (i.e. compliance monitoring manager, safety manager) under the additional certificate(s) held, the provisions set out in the first two paragraphs of point (e) may be replaced by the completion of a specific training programme acceptable to the competent authority to gain an adequate understanding of maintenance standards and continuing airworthiness concepts and principles.



# #2 - "Alternativ 1" - Bakgrund

## **AMC1 CAMO.A.305(c)-(e)**

a relevant engineering degree **or** an aircraft maintenance technician qualification with additional education that is acceptable to the competent authority.

'Relevant engineering degree' means an engineering degree from aeronautical, mechanical, electrical, electronic, avionics or

other studies that are relevant to the maintenance *and/or* continuing airworthiness of aircraft/aircraft components;

## AMC1 145.A.30(cc)-(d)

a relevant engineering **or** technical degree, **or** an aircraft technician **or** maintenance engineer qualification with additional education that is acceptable to the competent authority.

'Relevant engineering or technical degree' means a degree from aeronautical, mechanical, electrical, electronic, avionics or

other studies that are relevant to the maintenance *and/or* continuing airworthiness of aircraft/aircraft components.

# #2 - "Alternativ 2" - Ytterligare erfarenhet

### **AMC1 CAMO.A.305(c)-(e)**

The above recommendation may be replaced by 5 years of experience in addition to those already recommended by paragraph (d) above.

These **5 years** should cover an **appropriate combination of experience** in tasks related to aircraft **maintenance** <u>and/or</u> **continuing airworthiness management** <u>and/or</u> **surveillance of such tasks**;

**OBS**: Denna erfarenhet ska vara **utöver** den som anges i:

AMC1 CAMO.A.305(c)-(d) – "Satisfactory experience"

## AMC1 145.A.30(cc)-(d)

The provision set out in the first paragraph of point (d) may be replaced by **2 years** of experience **in addition to** those already recommended by paragraph (c) above.

These **2 years** should cover an **appropriate combination of experience** in tasks/activities related to **maintenance** <u>and/or</u> **continuing airworthiness management** <u>and/or</u> the **surveillance of such tasks**.

OBS: Denna erfarenhet ska vara utöver den som anges i:

AMC1 145.A.30(cc)-(c) – "Satisfactory experience"



## #2 - "Alternativ 3" - Specifikt träningsprogram - för SM/CMM

## **AMC1 CAMO.A.305(c)-(e)**

For the person to be nominated in accordance with point (a)(4) or (a)(5) of point CAMO.A.305, in the case where the organisation holds one or more additional organisation certificates within the scope of Regulation (EU) 2018/1139 and that person has already an equivalent position (i.e. compliance monitoring manager, safety manager) under the additional certificate(s) held, the provisions set out in the first two paragraphs of point (e) may be replaced by the completion of a specific training programme acceptable to the competent authority to gain an adequate understanding of maintenance standards and continuing airworthiness concepts and principles.

## AMC1 145.A.30(cc)-(d)

For the person to be nominated in accordance with point (c) or (ca) of point 145.A.30, in the case where the organisation holds one or more additional organisation certificates within the scope of Regulation (EU) 2018/1139 and that person has already an equivalent position (i.e. compliance monitoring manager, safety manager) under the additional certificate(s) held, the provisions set out in the first two paragraphs of point (d) may be replaced by the completion of a specific training programme acceptable to the competent authority to gain an adequate understanding of maintenance standards and continuing airworthiness concepts and principles;



## #2 - "Alternativ 3" - Specifikt träningsprogram - för SM/CMM (CAMO/145)

For the person to be nominated in accordance with point ... (SM/CMM i CAMO/145),

- in the case where the organisation holds one or more additional organisation certificates within the scope of Regulation (EU) 2018/1139 and
- that person <u>has</u> already an equivalent position (i.e. compliance monitoring manager, safety manager) <u>under the additional certificate(s) held</u>,
- the provisions set out in the first two paragraphs of point (e)/(d) may be replaced by
- the completion of a specific training programme
  - acceptable to the competent authority
  - to gain an adequate understanding of
    - maintenance standards and
    - continuing airworthiness concepts and principles.

#### **OBS**: Detta ersätter **INTE**:

- AMC1 CAMO.A.305(c)-(d) "Satisfactory experience" (5 år/2 år)
- AMC1 145.A.30(cc)-(c) "Satisfactory experience" (5 år/2 år)



# Utveckling av ett specifikt träningsprogram för att erhålla tillräcklig förståelse av:

# continuing airworthiness concepts and principles

- ?
- ?
- ?
- ?

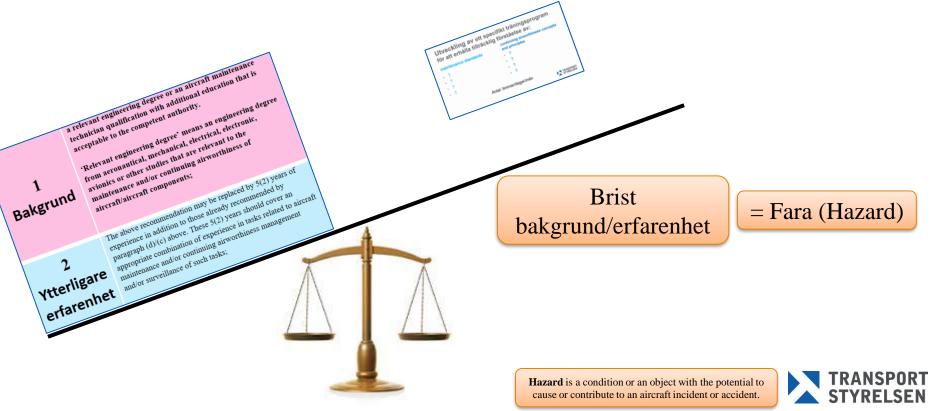
#### maintenance standards

- •
- . ?
- 7
- •

Antal: timmar/dagar/mån



# Utveckling av ett specifikt träningsprogram



# Utveckling av ett specifikt träningsprogram

a relevant engineering degree or an aircraft maintenance technician qualification with additional education that is acceptable to the competent authority. 'Relevant engineering degree' means an engineering degree from aeronautical, mechanical, electrical, electronic, avionics or other studies that are relevant to the Bakgrund maintenance and/or continuing airworthiness of aircraft/aircraft components; The above recommendation may be replaced by 5(2) years of experience in addition to those already recommended by paragraph (d)/(c) above. These 5(2) years should cover an appropriate combination of experience in tasks related to aircraft Ytterligare maintenance and/or continuing airworthiness management and/or surveillance of such tasks; erfarenhet





Brist bakgrund/erfarenhet

= Fara (Hazard)

**Hazard** is a condition or an object with the potential to cause or contribute to an aircraft incident or accident.



# CAME/MOE

#### **OBS**:

- Vid ansökan om alternativet för ett Specifikt träningsprogram
- Ska alternativet finnas beskrivet i tillämpligt avsnitt i CAME/MOE.



## CAMO vs 145 – AMC1 för "NP's"

#### AMC1 CAMO.A.305(c) Personnel requirements

ED Decision 2022/011/R

#### KNOWLEDGE, BACKGROUND AND EXPERIENCE OF NOMINATED PERSON(S)

The person or persons nominated in accordance with points AMO.A.305(a) and CAMO.A.305(b) should have:

- a) -
- c) -
- d) #1 5 års relevant erfarenhet varav 2 från branschen/funktion-
- e) #2 "Formell utbildning" Ingenjör eller teknikercert eller
  - #2 Kan ersättas med: 5 års erfarenhet från underhåll. **CAMO** eller **auditering** (utöver pkt d) **eller**
  - #2 Nytt Specifikt träningsprogram (SM/CMM)
- f) -

#### AMC1 145.A.30(cc) Personnel requirements

ED Decision 2022/011/R

#### KNOWLEDGE, BACKGROUND AND EXPERIENCE OF NOMINATED PERSON(S)

The person or persons to be nominated in accordance with points (b), (c) and (ca) of point 145.A.30 should have:

- a) -
- b) -
- c) #1 5 års relevant erfarenhet varav 2 från branschen/funktion
- d) #2 "Formell utbildning" Ingenjör <u>eller</u> teknikercert <u>eller</u>
  - #2 Kan ersättas med: 2 års erfarenhet från underhåll. **CAMO** eller **auditering** (utöver pkt c) **eller**
  - #2 Nytt Specifikt träningsprogram (SM/CMM)
- e) -

- h) -



# Summering

- Kompetens
- CAMO vs 145 Regeln
- CAMO vs 145 AMC1 f

  ör "NP's"
  - #1 Satisfactory experience
  - #2 "Alternativ 1" Bakgrund
  - #2 "Alternativ 2" Ytterligare erfarenhet
  - #2 "Alternativ 3" Specifikt träningsprogram för SM/CMM
- CAME/MOE
- OBS: Glöm inte övriga komptenskrav som finns i andra AMC/GM än detta AMC

