Information från Transportstyrelsen

Human Factors Network, Linköpings universitet

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Myndigheters arbete med stress

- Ex. insatser/regelverk av reaktiv och proaktiv karaktär:
  - CISM (Critical Incident Stress Management)
  - CRM (Crew Resource Management)
  - HRM och HF-training specifika (t.ex. ANS och underhållsorg.)
- Målgrupper berörda av regler & vägledningar gällande stress:
  - Enskilde individen (pilot, flygledare, tekniker m.fl.)
  - Tillståndshavaren (flygbolag, flygtrafiktjänst, underhåll m.fl.)
- Ökad fokus på träning och genomförande
  - Hur den bedrivs och vad som ger bäst resultat
  - Kompetens utbildare (organisation och CRM trainer)

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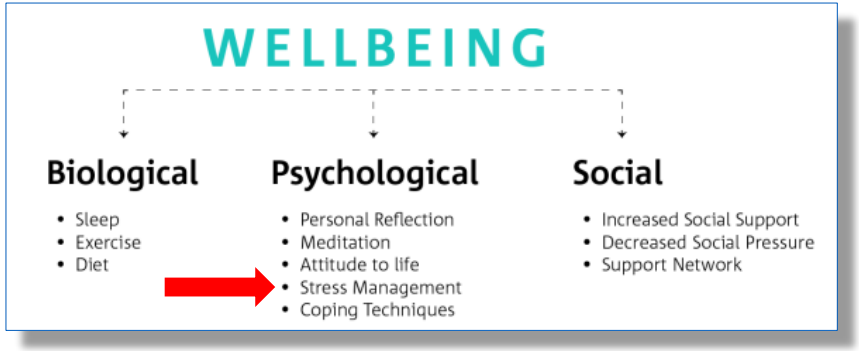
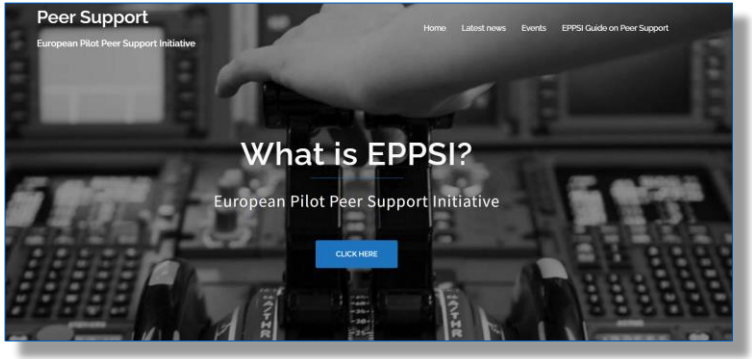
Exempel flyg – Pilot Peer Support Program





AMC3 CAT.GEN.MPA.215 Support programme

ED Decision 2018/012/R

ELEMENTS OF A SUPPORT PROGRAMME

(a) A support programme should contain as a minimum the following elements:

(1) procedures including education of flight crew regarding self-awareness and facilitation of self-referral;

(2) assistance provided by professionals, including mental and psychological health professionals with relevant knowledge of the aviation environment;

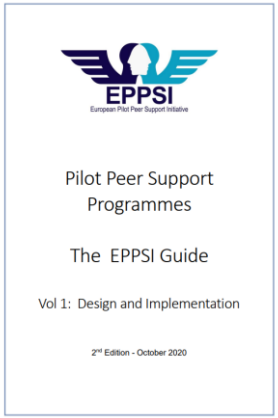
(3) involvement of trained peers, where trained peers are available;

(4) monitoring of the efficiency and effectiveness of the programme;

(5) monitoring and support of the process of returning to work;

(6) management of risks resulting from fear of loss of licence; and

(7) a referral system to an aero-medical examiner in defined cases raising serious safety concerns.



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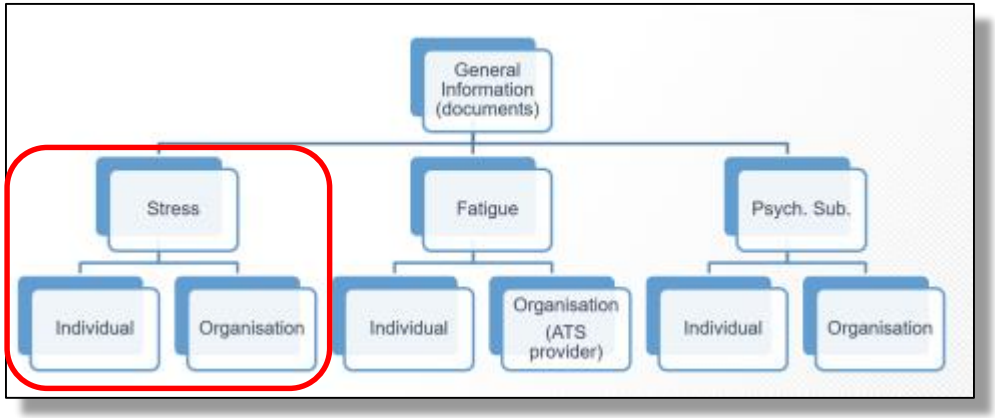
Exempel flygtrafiktjänst

Krav som ska uppfyllas av leverantörer av flygkontrolltjänster med avseende på mänsklig prestationsförmåga



ATS.OR.310 Stress

Regulation (EU) 2017/373

In accordance with point ATS.OR.200, an air traffic control service provider shall:

(a) develop and maintain a policy for the management of air traffic controllers' stress, including the implementation of a critical incident stress management programme;

(b) provide air traffic controllers with education and information programmes on the prevention of stress, including critical incident stress, complementing human factors training provided in accordance with Sections 3 and 4 of Subpart D of Annex I to Regulation (EU) 2015/340.

Gemensamt ansvar och delaktighet!

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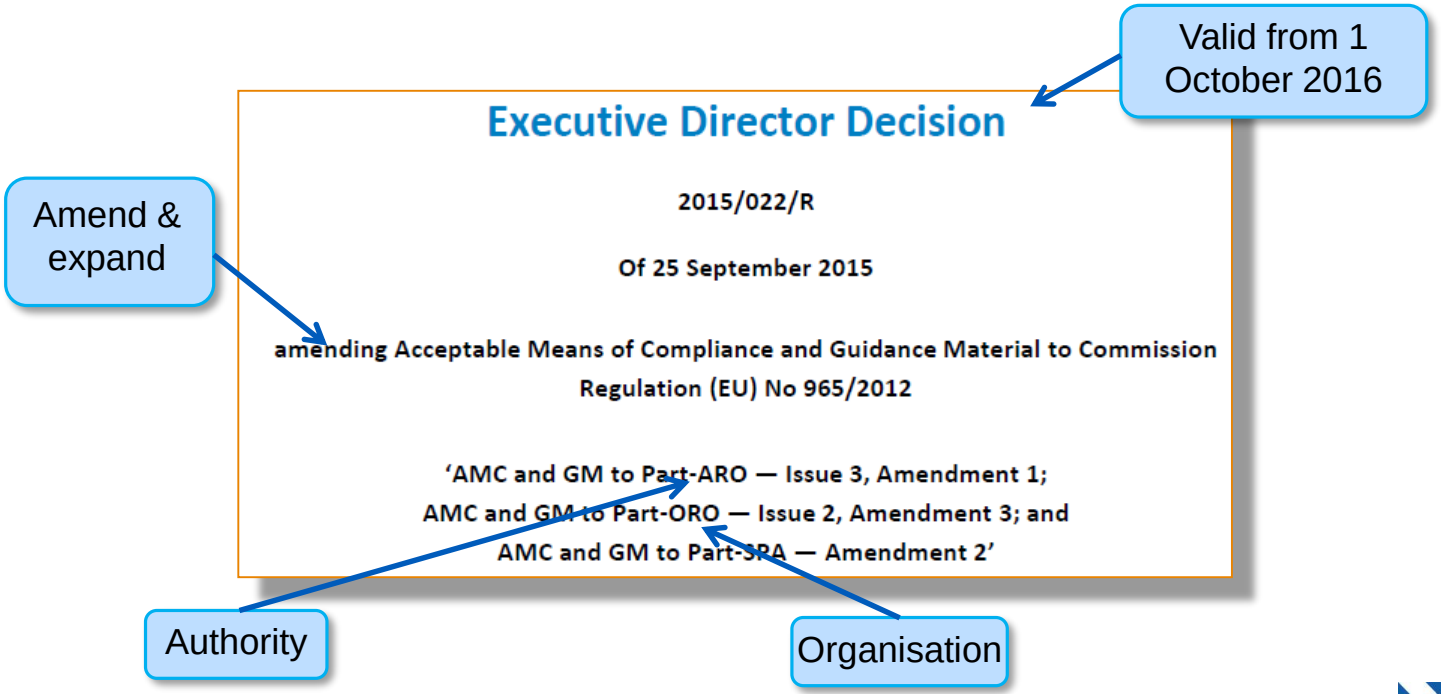
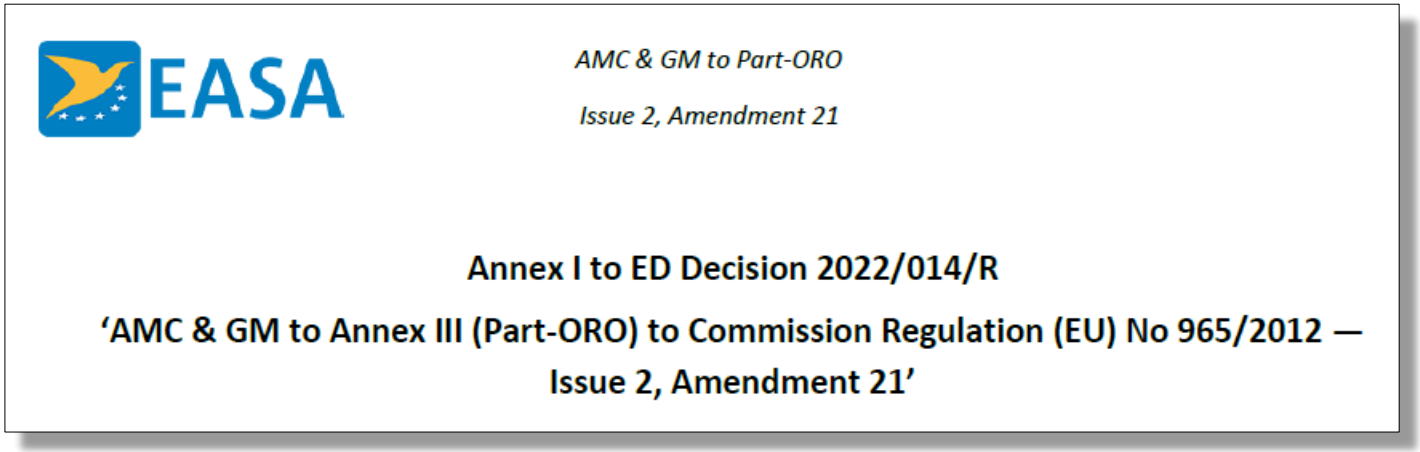
Tillbakablick CRM: ”Executive Director Decision for CRM”



Resan fortsätter….revidering av gällande CRM-regler


EASA

AMC & GM to Part-ORO

Issue 2, Amendment 21

Annex I to ED Decision 2022/014/R

'AMC & GM to Annex III (Part-ORO) to Commission Regulation (EU) No 965/2012 — Issue 2, Amendment 21'

<u>Exempel på områden som reviderats</u>:

- CRM Trainers
- Bedömning av CRM (s.k. assessments i AMC, fokus praktiska delar, av vem och utökning av tillfälle när CRM ska bedömas)
- CBT – när var hur
- Teoretiska ämnesområden (s.k. elements i AMC) – bl.a. stress uppmärksammats
- Ledningssystemets roll/koppling till CRM samt operatörens övriga utb.

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Regelverk för Air Operations

- Sammanställning av gällande regelverk
- E-rules (IR, AMC & GM, CS)
- 2364 sid - 490 sökträffar på ”CRM”

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Axplock av nya inslag i CRM.

- Flight crew CRM trainer (AMC2 ORO.FC.146 Personnel providing training, checking and assessment)
  - Qualifications & prerequisite
  - Introduktion av ”operator rating” (kan bistås av ”team of trainers”)
  - Recency & renewal
    - The flight crew CRM trainer should complete CRM trainer refresher training within the last 12 months of the 3-year validity period; and
    - The flight crew CRM trainer should meet one or both of the following conditions: (A) conduct at least 3 CRM training events within the 3-year validity period; (B) be assessed within the last 12 months of the 3-year validity period in accordance with (f)
  - Training of flight crew CRM trainer:
    - Större fokus på ”trainer competencies”, att kunna utbilda i group management, group dynamics and personal awareness, även planering av pass, kunskap om Safety culture & management systems etc.

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Axplock av nya inslag i CRM, forts.

- CRM training elements (utökade kunskapskrav om den specifika operatören)
  - Stress & stress management
  - Fatigue & vigilance (FRMS) m.m.

CRM training elements	Initial operator's CRM training	Operator conversion course when changing aircraft type	Operator conversion course when joining an operator	Annual recurrent training	Command course
Relevant to the individual flight crew member					
Personality awareness, human error and reliability, attitudes and behaviours, self-assessment and self-critique; Stress and stress management; Fatigue and vigilance; Assertiveness, situation awareness, information acquisition and processing.	In-depth	Not required	Required	Required	In-depth

Från "Not required" till "Required"

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Axplock av nya inslag i CRM, forts.

- Training and checking programmes
  - De-identified feedback from the SMS to define/improve CRM training – ska även användas i övriga utbildningar som ground training, emergency etc.
- Minimum training times
  - multi-pilot operations: combined CRM training: 6 training hours over a period of 3 years, or, for EBT operators, a minimum of 3 training hours within 3 years
- Virtual classroom training – single pilot operations (nytt GM)
  - *"A successful virtual classroom training relies on the ability of the trainer to make best use of the associated technologies in the context of CRM training"* (Ref: EASA)
  - Ökat stöd/kunskapskrav för trainer gällande bl.a. management of time, training media, equipment and tools, briefings etc.

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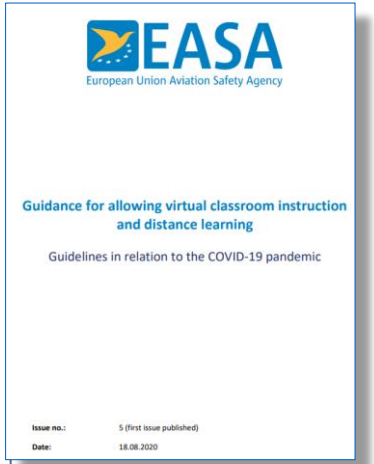
Axplock av nya inslag i CRM, forts.

- Flight crew CRM training in the non-operational environment
  - CBT (Computer Based Training) – tydligt hänsynstagande till dess begränsningar
  - Skillnader mellan multi pilot operations, single pilot operations & EBT (Evidence Based training)
  - “Complementary training method in the context of EBT” – möjlighet CBT som metod
  - Single pilot ops hkp – virtual classroom training möjligt

“Computer-based training (CBT) is not the best tool to train human interaction, human relationships, etc. Ideally, CRM training in the non-operational environment should be classroom training” (ref EASA)



“Remote classroom training costs more than CBT, but it is the best way to ensure that CRM training in the non-operational environment is both effective and cost effective (ref: EASA)

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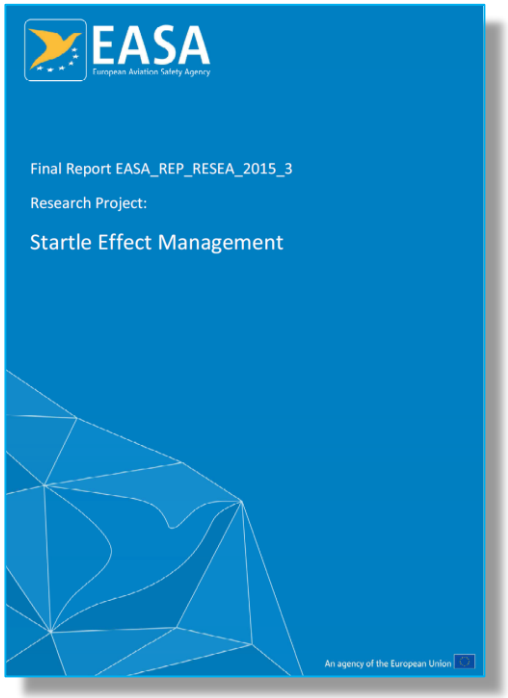
Från teori till praktisk tillämpning – hur ”stressar” vi piloterna?



(EASA, 2018)

- NLR & KLM
- Simulator- and classroom
- Line-pilots (40)
- Method for training & evaluation
- Positive result
- Content:
  - Literature Analysis
  - Startle and Surprise in Accidents and Incidents
  - Analysis of Airline Startle & Surprise Training
  - Development of Training Program
  - Results of the evaluation

The “Mental Upset” concept

Unload

1. taking physical distance
2. deep breathing
3. muscle relaxation
4. checking of colleague

Roll

- ‘What do I see?’,
- ‘What do I hear?’,
- ‘What do I feel?’, and
- ‘What do I smell?’

Power

- Do we miss information? (How sure are we about the information used?)
- Are there information conflicts/inconsistencies? (Among different sources)
- Are our assumptions correct?

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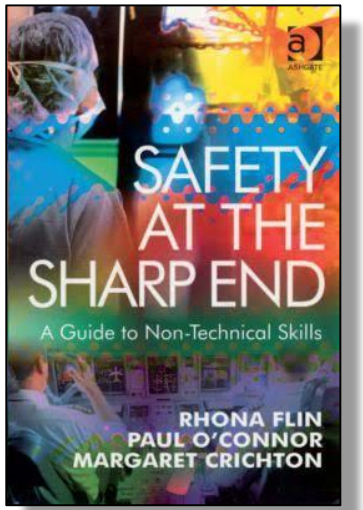
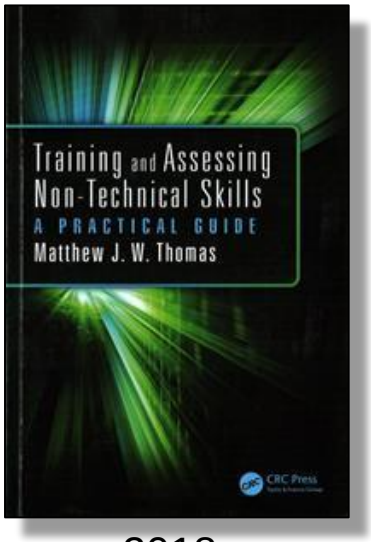
Teorin på plats, mer fokus på det praktiska…



2008

Seven skills:

1. Situation awareness
2. Decision making
3. Communication
4. Teamwork
5. Leadership
6. Managing stress
7. Coping with fatigue



2018

Praktisk applicering:

1. Pedadogik, lärande, grundprinciper träning etc.
2. Training and assessing situation awareness
3. Training and assessing Decision making
4. Training and assessing communication & teamwork
5. Training and assessing task management

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Frågor ?

Reflektioner?

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