



Fatigue Management Training

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CAVEAT

The information in these presentations represents the CAA's interpretation of legislation. It may be found in the future that EASA has a different interpretation and so the CAA's position may change following discussion and agreement with the Agency and the other National Aviation Authorities.

Scope

- Where is the information?
- What hasn't changed?
- What do the regulations require?
- What do you need to do?

Where is the information?

- Currently in EU-OPS and CAP 371
- In future the Operations and Aircrew Regulations
- As with JAR-OPS/EU-OPS, relevant information on what training is required and how often is scattered through the various sub-parts, e.g. Part-ORO, Part-CC

What hasn't changed? The human....

BBC News - Night work 'throws body into chaos' - Windows Internet Explorer provided by Civil Aviation Authority

http://www.bbc.co.uk/news/health-25812422

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Night work 'throws body into chaos'

By James Gallagher
Health and science reporter, BBC News



Overnight maintenance on the London Underground

Doing the night shift throws the body "into chaos" and could cause long-term damage, warn researchers.

Shift work has been linked to higher rates of type 2 diabetes, heart attacks and cancer.

Now scientists at the Sleep Research Centre in Surrey have uncovered the disruption shift work causes at the deepest molecular level.

Related Stories

- Shift work link to heart attacks
- Shift workers 'risking' diabetes
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Features

- Hard day's night
A user's guide to getting through night shifts
- That's not me!
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Fatigue risk.....

‘The crew had operated ... a total of 12H33 on duty (scheduled) with no delays. Halfway through the flight I awoke to realise I was the only one awake - a sobering thought. I had been asleep at least 30 minutes.’

CHIRP Report, Green 1987

Fatigue risk

- Affects all flight and cabin crew:
 - long haul
 - long flight duration
 - night duty
 - time zone crossing
 - short haul
 - long duty days
 - early starts
 - night duty
 - high number of sectors
- Determined by time awake, sleep debt – not only duty time

Factors influencing fatigue

- Fatigue and alertness depends on:
 - prior sleep and wakefulness
 - circadian phase (normally increased sleepiness and decreased performance at certain times)
 - Age
 - Alcohol
 - Stimulants, e.g. caffeine, some drugs
 - Work and environmental conditions
 - Intercurrent illness
 - Medication

Impact of fatigue

- Effects of sleep loss:
 - additive
 - sleep debt
 - increased sleepiness
 - decreased physical and mental performance
 - increased negative mood

What do the
regulations
require?

Requirement for training

- Who should be trained :
 - All – includes staff / managers involved in roster preparation (as does CAP 371) – ORO.FTL.250
 - Flight crew – ORO.FC.115 & 215
 - Cabin crew – ORO.CC.115 & CC.TRA.215 & 220
 - Senior cabin crew member training – AMC1 ORO.CC.200(c) (e/f) - human factors, CRM & FTL requirements
- How often they should be trained
 - Frequency of training hasn't changed – for both flight and cabin crew, initial training and recurrent training as part of a 3-year cycle
 - Initial training – in-depth
 - Recurrent training – overview

Content of training

- Broad requirements:
 - Part-ORO – as content of CRM training – ‘fatigue and vigilance’
 - Part-CC – ‘alertness management, physiological effects of fatigue, sleep physiology, circadian rhythm and time zone changes’
- **New – ORO.FTL.250 detailed specification
AMC1 ORO.FTL.250**
- Training needs analysis:
 - Training must address hazard (fatigue) as appropriate to crew member’s work, e.g. shorthaul operations, longhaul operations, mixed operations

Content of training: AMC1 ORO.FTL.250



- Training syllabus should include:
 - Review of EU Air Operations flight, duty and rest regulatory requirements;
 - Awareness of the operator's fatigue management procedures, and the responsibilities of management and employees to mitigate or manage the effects of fatigue and improve crew member flight deck alertness;
 - The basics of fatigue, including sleep fundamentals and the effects of disturbing circadian rhythms;
 - The causes of fatigue, including medical conditions that may lead to fatigue;
 - The effects of fatigue on performance;
 - Fatigue countermeasures;
 - The influence of lifestyle, including nutrition, exercise, and family life, on fatigue;
 - Familiarity with sleep disorders and their possible treatments;
 - Where applicable the effects of long range operations and task intensive short range schedules on individuals;

(Continued)

Content of training: AMC1 ORO.FTL.250



- Training syllabus should include (2):
 - The effect of operating through and within multiple time zones;
 - The effects of fatigue as a result of commuting;
 - Crew member's responsibility for ensuring adequate rest and fitness for duty;
 - Operational procedures to follow when one identifies, or suspects, fatigue risk in oneself or others;

- The syllabus should also:
 - Incorporate lessons learned regarding the effects of fatigue and mitigation initiatives relative to the operator's operation; and
 - Use a methodology that continually assesses the effectiveness of the training programme.

Frequency of Training

- ORO.FTL.250:
 - Initial and recurrent fatigue management training
 - The operator, in agreement with the CAA, needs to establish a programme of recurrent training that meets with the complexity of the operation. It is expected that some elements of operator specific fatigue risks will be covered on an annual basis.
 - Any significant changes in the flying operation may require additional route specific training.

Record-keeping

- Record retention (ORO.MLR.115):
 - Crew member training, checking & qualifications – 3 years
 - Training / qualification records of other personnel for whom a training programme is required – last 2 training records

What do you need to do?

- Ensure that all crew receive appropriate training
- Ensure that all staff, including managers, whose role influences rostering also receive appropriate training
- Ensure that those developing and delivering training are competent
- Ensure that training records are updated and retained in accordance with the regulatory requirements
- Methodology in place to monitor effectiveness of training

- Hopefully you are already doing most of this!

Any questions?

