

**Fatigue - Whose
responsibility is it?**

**Understanding the internal
and external influences in
order to develop operational
fatigue management
approaches.**

This Session is to explore:

- The influences on both the individual and the organisation with regard to the management of fatigue within the operational context.
- The importance of creating a mature conversation throughout the organisation with regard to fatigue issues is essential in order to generate a culture that enables the active management of fatigue issues. The organisational goal should be **knowledge based** to understand **the impact** of a fatigued engineer, regardless of the cause, **on the task and associated safety implications**.

ICAO Definition of Fatigue

Fatigue in aviation has been defined by ICAO as:

Symptoms

A physiological **state of reduced mental or physical performance capability**

Causes

resulting from **sleep loss or extended wakefulness, circadian phase, or workload** (mental and/or physical activity)

Consequences

that can impair a crew member's alertness and ability to safely operate an aircraft or perform safety related duties.

ICAO's Four Scientific Principles

- Scientific Principle 1: The Need for Sleep
- Scientific Principle 2: Sleep Loss and Recovery
- Scientific Principle 3: Circadian Effects on Sleep and Performance
- Scientific Principle 4: Effects of Workload on Fatigue

Operational and Organisational Context

- Working environment
- Aircraft type
- Organisational Culture
- Country Culture
- Available resources
- Experience levels
- Etc.



**This
Or
This**



**Here
Or
Here**



Challenges to managing fatigue

- Some common statements before FRMS implementation:
 - “Fatigue can’t be an issue, we fully comply to the prescriptive duty time regulations”
 - “Fatigue can’t be an issue, we do have a labour agreement which is even more restrictive”
 - “Fatigue is highly political, we should be careful”
 - “Fatigue shall be not problem, maximum crew productivity is fundamental part of our business strategy”
- But operational experience has shown, human fatigue is an evident risk in aviation.

Key Points

- Fatigue-related impairment results from physiological disruption - fatigued people are unable to perform at their optimum level, not unwilling
- Sleep is required to recover from the physical and mental exertion of all waking activities (not just work demands) managing fatigue is primarily about managing sleep opportunities, not the length of rest breaks
- **Fatigue management is a shared management/workforce responsibility**
- The circadian body clock drives rhythms in many aspects of waking function (physical and mental work capacity, mood ...)
- The circadian rhythm governs the ability to fall sleep and stay asleep
- The perfect roster is day work with unrestricted sleep at night
- **In 24/7 operations fatigue is inevitable – the associated safety risk must be managed**

Questions

- What are the influences?
- Who manages them?
- How can the organisation create open reporting of fatigue issues regardless of their cause?

Feedback



Thank you for your participation