



FATIGUE MANAGEMENT

DEFINITION

International Civil Aviation Organization (ICAO) defines fatigue as 'a physiological condition characterized by reduced mental or physical performance capability caused by factors such as sleep loss, extended wakefulness, circadian disruption, and workload (both mental and physical), which can compromise alertness and impair the ability to safely perform operational duties.'

SIGNS



1

REPORT TO SUPERVISOR WHEN TIRED

Early reporting allows for adjustments in your workload or schedule to prevent accidents or errors caused by fatigue.

2

HEALTHY DIET

Eat a healthy diet that promotes longer-lasting energy. Prefer complex carbohydrates. Avoid fatty and junk foods.



3

LOOK OUT FOR YOUR CO-WORKER

Keep an eye on your colleagues for signs of fatigue, such as yawning, difficulty concentrating, or slower reaction times.



4

TAKE BREAKS

Short, frequent breaks can be more effective than fewer long breaks. Use this time to rest, hydrate, and stretch to recharge your energy levels.



5

GOOD QUALITY SLEEP

Try to get at least 7.5-8.5 hours of sleep per night. Avoid caffeine and electronic devices before bedtime to improve sleep quality.



SAFETY ALWAYS.
"THINK SAFETY FIRST"

EFFECTS OF MANPOWER FATIGUE

01

INCREASED ERROR RATES

Fatigue leads to higher error rates during aircraft maintenance tasks and engineering analyses due to reduced concentration and attention to detail.



02

COMMUNICATION BREAKDOWNS

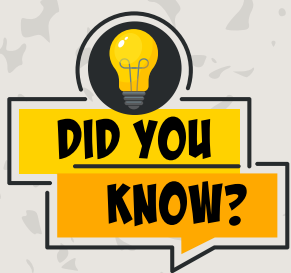
Fatigue contributes to miscommunication among team members, leading to operational inefficiencies and potential errors in aircrafts MRO activities.



03

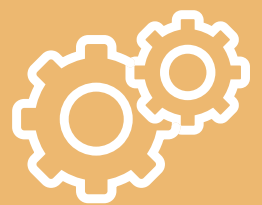
REDUCED ALERTNESS AND DECISION-MAKING

Fatigue leads to slower reaction times, reduced focus on detailed tasks, and compromises the analytical skills necessary for effective problem-solving and decision-making in MRO aviation operations.



According to US Air Force Safety Directorate analysis, Human Factors are the cause of 60-80 percent of accidents in any complex system.

REAL-LIFE CONSEQUENCES OF MANPOWER FATIGUE



MAINTENANCE ERROR INCIDENT AT BRITISH AIRWAYS

On 24 May 2013:

An incident occurred from both technicians who had been working overtime due to staff shortages, which significantly increased the risk of fatigue. The incident highlighted that fatigue risks from extended and overtime shifts were not objectively measured or accounted for, potentially leading to errors in maintenance tasks.

MAINTENANCE ERROR, 2020

During the COVID-19 pandemic, increased workloads and reduced staffing led to fatigue among maintenance personnel. This was linked to several errors, such as improper installations and missed inspections, highlighting the need for robust fatigue management systems to mitigate risks during crises.

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