Fatigue Risk Management Systems (FRMS)

Classroom and In-Company Course (3 days/24 hours)

Benefit from the latest guidance on aviation fatigue management from the IATA Fatigue Risk Management Systems (FRMS) Task Force. Learn how to implement and maintain the fatigue management approach which applies to your company. The course is based on the: IATA-ICAO-IFALPA Fatigue Management Guide for Airline Operators, 2nd Edition, 2015; ICAO Annex 6, Parts 1 and II; ICAO Annex 19; ICAO Doc 9966 Manual for the Oversight of Fatigue Management Approaches; and ICAO Doc 9859 Safety Management Manual (SMM).

Objectives

Upon completion of this course you will be able to:

- Be up-to-date on the latest information on fatigue, and how to mitigate the effect of fatigue on aviation safety
- Recognize current industry requirements and documentation relating to fatigue management
- Understand the implications of the two different approaches to fatigue management and recognize which applies to your organization
- Implement fatigue management and meet regulatory requirements

Target audience

- Air Crew
- Airline Operations Managers
- Safety Managers from Airlines and Civil Aviation Authorities

Key topics

- The relationship between fatigue and safety in aviation
- Lessons from science: sleep science; circadian rhythms; shift work; jet lag; use of bio-mathematical models; measuring crew member fatigue
- Comparison of an FRMS with the traditional methods of air crew fatigue risk management
- The benefits of introducing an FRMS
- How to implement an FRMS
- FRMS policy and documentation including numerous examples of FRMS policy statements
- The steps in Fatigue Risk Management processes
- FRMS safety assurance processes
- FRMS promotion including Training programs
- FRMS Implementation
- How to build the culture of trust for a collaborative approach to FRMS implementation
- Measuring crew member fatigue
- Investigating fatigue in reports, incidents, accidents
- EASA regulations and applications

Activities

- Case Studies and examples

Certificate awarded

An **IATA Certificate** is awarded upon successful completion of the course and final examination.

You can also apply this course towards an IATA Diploma in Safety Management in Civil Aviation.

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TRAINING

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Course schedule

Day 1

- **Introduction to Fatigue Risk Management**
  - How fatigue affects human performance
  - Fatigue risks in aviation and their mitigation
  - ICAO Annexes, documents and SARPs
- **Sleep science**
  - REM and non-REM sleep
  - Factors affecting sleep, sleep quality
- **Sleep loss**
  - Sleep requirements, loss, disorders, tips
  - Effect of continued hours of wakefulness
- **Circadian rhythms**
  - Effects on the human body and performance
  - Window of Circadian Low (WOCL)
  - Individual variability, high risk patterns, jet lag
- **FRMS processes**
  - Operational knowledge and experience
  - Stakeholder responsibilities
  - The two different approaches to fatigue management: prescriptive; and FRMS
  - **Prescriptive approach**: the State takes responsibility for establishing prescriptive limitations and requirements for fatigue management; oversees Service Providers to ensure they are managing their fatigue risk to an acceptable level using existing SMS processes

Day 2

- **FRMS processes (continued)**
  - **FRMS approach** in which common elements between an FRMS and an SMS are integrated
  - FRMS components and processes: safety policy and objectives; risk management; documentation; safety assurance, promotion
  - Operational activities of an FRMS
  - Forming a Fatigue Safety Action Group (FSAG)
  - Comparison of crew fatigue on short haul, night cargo/ freighter, long haul operations
  - Collecting data for the FRMS
  - Identifying fatigue hazards: prior experience; evidence-based scheduling; fatigue software
  - The proactive hazard identification process
  - How to measure sleep, crew member fatigue using subjective and objective measures
  - Risk assessment process, severity classification, risk mitigation, operational controls and mitigations
  - FRMS safety assurance process
  - Monitoring FRMS safety performance
  - Hazard reporting and investigation
  - Audits and surveys
  - FRMS safety performance indicators, targets
  - FRMS promotion process, training, Communications Plan essentials

Day 3

- **Implementing FRMS**
  - How to implement an FRMS in phases
- **Investigating fatigue in reports, incidents and accidents**
  - How to conduct an investigation, content
  - Fatigue indicators
  - Sources of evidence
  - Fatigue factor analysis

Day 3 (continued)

- **EASA regulations and applications**
  - Subpart Q, changes of February 2016
  - How to assess what is needed in your organization to meet requirements
  - Minimum FRM requirements
  - Controlled rest
  - Review in order to meet requirements
  - Case study

This course can be customized for your company and delivered at the location of your choice.
Request in-company training

Contact us for more information: www.iata.org/training-contact
Register: www.iata.org/training/courses/pages/tcvt33.aspx