



DIRECTORS GENERAL OF CIVIL AVIATION-MIDDLE EAST REGION

First Meeting (DGCA-MID/1)
(Abu Dhabi, UAE, 22-24 March 2011)

Agenda Item 5: Aviation Safety Issues

FATIGUE RISK MANAGEMENT SYSTEM

(Presented by IATA)

SUMMARY

Airline safety is the industry's top priority, and already existing crew flight duty and flight time limits are being re-examined in the light of new, more scientific approaches to managing the risk of crew fatigue.

This paper presents IATA's efforts to promote the implementation of a fatigue risk management system (FRMS), which may either partially or totally replace the traditional prescriptive FTLs and FDLs.

1. INTRODUCTION

1.1 Crew fatigue has typically been controlled by a simple set of prescriptive rules concerning flight time limitations (FTL) and flight duty limitations (FDL). These vary slightly from country to country, but generally limit the total number of hours that flight (and cabin) crew may fly (fly time limits) and be at work (flight duty limits) in a set period.

1.2 These rules can sometimes lead to situations in which crew are given rest periods when they are unlikely to be able to sleep. A different system was needed on long-haul flights, where circadian rhythms, which are the body's natural daily cycles, are interrupted due to time zone changes.

1.3 It has been demonstrated that the timing of the break is more important than the duration of the break itself. A prescriptive approach, based only on daily time limits, cannot take into account the complex interaction of factors that are linked to hours of work and rest periods.

1.4 With a well-managed fatigue risk management system, flight duty time and schedule of operation will be optimized, and this enhances efficiency.

2. DISCUSSION

2.1 An FRMS generally uses biomathematical models that are able to predict the risk of fatigue associated with a specific pattern of working hours. It uses many types of monitoring systems, from crew alertness tests to crew rest monitoring, and generally also include some type of crew reporting system.

2.2 ICAO started to look at crew fatigue seriously in 2003, when the prescriptive rules were revisited and a “best practice” guide was published. ICAO began working with the Flight Safety Foundation, specifically looking at ultra-long-haul operations. In 2006, an ICAO FRM subgroup continued to work on the issue, but realized that the level of expertise required would have to be significantly broadened.

2.3 In the summer of 2009 an ICAO FRM taskforce was established, bringing together a team of experts from the industry, including IATA.

2.4 IATA and ICAO have drafted an agreement to jointly produce a FRMS Implementation Guide that is consistent with ICAO regulatory guidance material. This guide has been reviewed by 15 IATA members and the ICAO FRMS Task Force, and is scheduled for an affective date in late 2011.

2.5 IATA is currently producing its first FRMS guide. This will be part of the IATA Safety Management System series, and will be available for all airlines by 2012.

3. ACTION BY THE MEETING

3.1 The meeting is invited to note the contents of this information paper.