



TWELFTH AIR NAVIGATION CONFERENCE

Montréal, 19 to 30 November 2012

Agenda Item 6: Future direction

6.1: Implementation plans and methodologies

FATIGUE RISK MANAGEMENT SYSTEMS (FRMS) IN ATC

(Presented by the International Federation of Air Traffic Controllers' Associations)

SUMMARY

This paper presents IFATCA's view that fatigue risk management systems (FRMS) for air traffic control (ATC) should be defined in a similar manner to that required for aircrew, and that such FRMS should be considered as a part of the safety management system of an air navigation service provider.

Action: The Conference is invited to consider this paper and the establishment of a joint task force to develop guidelines for FRMS for ATC.

1. INTRODUCTION

1.1 The International Federation of Air Traffic Controllers Associations (IFATCA) has long recognised the need to take into account human performance limitations in aviation, particularly in air traffic control (ATC). IFATCA has had policy on fatigue management since the 1980's.

1.2 In many cases ATC hours are not regulated to the same degree that pilot and flight crew hours are (despite some exceptions). It is obvious that the fatigue and well-being of an air traffic controller is no less important than that of aircrew. In many cases, ATC duty hours are not even subject to national regulation, but are left solely in the realm of local working or industrial agreements. They are frequently used as a "bargaining" tool in agreement negotiations. With the current depth of scientific research and knowledge in the areas of human performance limitations, fatigue and sleep management, such an important issue shouldn't just be left local agreements. A basic framework of ATC duty hours and limitations should be enshrined in national regulations. IFATCA in its global professional policy calls upon regulators/legislators to develop comprehensive hours of duty regulations for air traffic controllers within the framework of fatigue management principles; and calls upon air navigation service providers (ANSPs) to maintain credible fatigue management systems and establish this as a key element of a target level of safety.

1.3 ICAO has recognized the importance of a fatigue risk management system (FRMS) by publishing the Fatigue Risk Management Systems Manual for Regulators (Doc 9966) in 2011. This manual provides a guidance on the development, implementation, approval and monitoring of an FRMS. ICAO Annex 6, Part I added Appendix 8 in December 2011 describing the FRMS requirements. Although this manual is for flight and cabin crew members a lot of the information is applicable for personnel providing ATC. IFATCA recommends that a similar level of rigor be defined for FRMS within ATC.

2. BACKGROUND

2.1 A FRMS is a scientific based series of defined organisation wide processes that assess the impact of fatigue on the operation to provide effective risk based decision-making.

2.2 The definition of fatigue used in ICAO Doc 9966 is: *‘A physiological state of reduced mental or physical performance capability resulting from sleep loss or extended wakefulness, circadian phase, or workload (mental and/or physical activity) that can impair a crew member’s alertness and ability to safely operate an aircraft or perform safety related duties’.*

2.3 IFATCA proposes that a definition of fatigue when considering FRMS for ATC could be: *A physiological state of reduced mental or physical performance capability resulting from sleep loss or extended wakefulness, circadian phase, or workload (mental and/or physical activity), affecting the subjective state, that can impair an air traffic controller’s alertness and ability to perform safety related duties’.*

2.4 This paper will not discuss the causes of fatigue or the risk to operations caused by fatigue, as this is well understood within the ICAO documentation and scientific research. IFATCA would like to see a similar level of research and industry cooperation that resulted in the FRMS guidance for aircrew to be applied to ATC operations.

2.5 To date fatigue management has largely been addressed as a labour relations issue rather than a safety management issue. The objective of Safety Management is to identify hazards and mitigate risks. As has been well documented in recent situations, fatigue is a major risk in ATC operations. IFATCA proposes that as ATM moves embraces Safety Management Systems (SMS), that it is appropriate to treat fatigue management as a component of the safety management system. The same SMS principles can be applied as for the management of other safety hazards and fits well within existing SMS frameworks, as it is based on a pragmatic review of operational practices augmented by scientific knowledge.

2.6 IFATCA calls for a FRMS to be auditable, by the regulator, thus a measurable part of its safety management system. Measuring, assessing and controlling fatigue levels of shift working staff should be an integral part of an ANSP’s SMS, and should be seen with same importance as any other aspect of the ANSP’s operations that can impact upon safety.

2.7 Fatigue management is about safety of the individual and safety of the overall system operation. Fatigue management should be a part of the safety management system, and, importantly, should be a part of the safety culture of the ANSP. It must not be seen as just an industrial issue or business management issue.

3. CONCLUSION AND RECOMMENDATIONS

3.1 IFATCA recommends that FRMS for ATC operations be introduced in a similar manner to that for aircrew, and that this be done within the framework of the SMS of an ANSP.

3.2 We invite the Conference to:

- a) note the content of this paper; and,
- b) That a task force consisting of ICAO, ANSP’s, and IFATCA be established to develop guidelines for FRMS for ATC operations.