



International Civil Aviation Organization
Fourth Meeting of the Regional Aviation Safety Group
– Pan America (RASG-PA/04)
Miami, United States, 19 - 21 October 2011



Agenda Item 3: RASG-PA Working Groups
3.1.6 ICAO Fatigue Risk Management System (FRMS)

PROPOSED FLIGHT AND DUTY REGULATIONS

(Presented by United States)

SUMMARY

In response to the Colgan Air accident of February 2009, the Federal Aviation Administration (FAA) convened an aviation rulemaking committee to make recommendations on updating existing flight and duty regulations for pilots. Based on the recommendations of the committee, the FAA issued the Flight Crew Member Duty and Rest Requirements Notice of Proposed Rulemaking (NPRM) on September 14, 2010. The proposed rule used current fatigue science to mitigate the effects of fatigue, and recognized that its effects are universal, regardless of the type of operations. It also sought to consider fatigue science and information on aviation fatigue, current approaches to address fatigue mitigation strategies in international standards, and the incorporation of fatigue risk management systems (FRMS).

1. Introduction

1.1 In response to the Colgan Air accident of February 2009, the Federal Aviation Administration (FAA) convened an aviation rulemaking committee to make recommendations on updating existing flight and duty regulations for pilots. The committee was chartered to provide a forum for the United States aviation community to discuss current approaches to fatigue mitigation currently found in international standards, and to make recommendations on how the United States should modify its own regulations in this area. The committee consisted of 18 members representing airline and labor associations, who were selected based on their extensive certificate holder management and/or direct operational experience.

1.2 Based on the recommendations of the committee, the FAA issued the Flight Crew Member Duty and Rest Requirements Notice of Proposed Rulemaking (NPRM) on September 14, 2010. The proposed rule used current fatigue science to mitigate the effects of fatigue, and recognized that its effects are universal, regardless of the type of operations. The proposed rule considered issues such as circadian rhythms, workload demands, number of take-offs and landings per shift, crossing of time zones, and ultra long-range operations. The proposed rule aimed to find a single approach to addressing fatigue that consolidates and replaces existing regulatory requirements for Federal Aviation Regulations (FARs) Parts 121 (commercial). It also sought to consider fatigue science and information on aviation fatigue, current approaches to address fatigue mitigation strategies in international standards, and the incorporation of fatigue risk management systems (FRMS).

2. Discussion

2.1 Specifically, the proposed rule:

- Applied to all United States Part 121 operations (domestic, flag and supplemental);
- Included limitations on flight time, flight duty periods and duty periods;
- Increased rest requirements for domestic and international operations;
- Addressed reserve duty;
- Established joint responsibility between the airman and certificate holder pertaining to fitness for duty;
- Permitted the use of a fatigue risk management system (FRMS);
- Required training for operations personnel on the effects of fatigue and how to recognize fatigue; and
- Allowed for extensions for operations into unsafe areas.

2.2 During the open comment period, the FAA received more than 2,500 comments to the proposed rule. The major issues raised during this open period included the nature of fatigue science, and its applicability to supplemental and all-cargo operators.

2.3 One of the underlying challenges in considering this issue was that much of fatigue science has only been validated in the laboratory environment, not in the aviation environment. Certain considerations have not been addressed, such as: fatigue effects of “flying” vs. “time on task,” fatigue effect of standby duty or the effect of multiple flight segments on fatigue. Therefore, the FAA made decisions based on operational experience, not just fatigue science. Fatigue is individually variable, and therefore the FAA took a conservative approach in its proposal.

2.4 Considering the rule’s applicability to supplemental and all-cargo operators, existing duty and rest regulations for supplemental operators deviate the most radically from fatigue science, and therefore from the requirements of the proposed rule. The supplemental operators have been advocating to “carve-out” their operations due to the disproportionate impact on these operators. Fatigue science, of course, does not support a physiological difference between pilots conducting supplemental operations and other operations. The FAA, therefore, has the challenge to either continue to address these operators or accept a different level of safety for them.

2.5 Other issues raised by the comments included:

- Duration of flight duty periods and extension of flight duty periods;
- Rest requirements;
- Necessity of flight time or duty time limitations;
- Fitness for duty/addressing commuting; and
- Schedule reliability

2.6 The FAA has evaluated the comments to the proposed rule and is currently drafting the final rule. The agency anticipates publishing the final by the end of this year.

3. Action by the Meeting

3.1 The Meeting is invited to:

- a) Consider the effects of fatigue on operations in the aviation environment; and
- b) Note that the final U.S. rule on this issue will likely be published by the end of 2011.