



International Civil Aviation Organization
ICAO South American Regional Office
Eleventh Meeting of the Civil Aviation Authorities of the SAM Region (RAAC/11)
(Santiago, Chile, 6 – 8 May 2009)

Agenda Item 4: Review of the level of safety oversight attained in the Region

c) Status of implementation of safety management systems in the States of the Region

U.S. APPROACH TO SAFETY MANAGEMENT SYSTEM (SMS) IMPLEMENTATION AT AIRPORTS

(Presented by the United States of America)

SUMMARY

The United States Federal Aviation Administration (FAA) fully endorses the ICAO initiative to implement safety management systems (SMSs) for airport operators in accordance with recently adopted amendments to Annex 14. This working paper describes how the United States Federal Aviation Administration (FAA) is implementing SMS for certificated airports.

1. Introduction

1.1 The ICAO Council adopted Amendment 7 to Annex 14 requiring airport operators establish a SMS as part of the certification process in 2005. Amendment 7 became effective on 24 March 2005.

1.2 The United States enthusiastically endorsed the concept of SMSs for certificated airport operators. Work is underway to determine requirements for airport operators and to provide an architectural framework for system safety implementation.

1.3 The FAA, along with ICAO, recognizes the need for a more formal approach to safety that identifies and mitigates risks associated with changes in operations and procedures at airports. A key component of SMS is a process to formalize and document safety reviews and decisions. Moreover, notwithstanding the FAA's responsibility to promulgate regulations and standards, progress in aviation safety can be enhanced with a more integrated, cooperative relationship. Safety management is more correctly viewed as a collaborative effort between government and airport operators.

2. Discussion

2.1 Trends in government and airport management indicate that to improve aviation safety a structured approach to management is necessary where clear goals and requirements are set. The FAA is in the process of implementing SMS for certificated airports. Both the Agency and the airport operators recognize that this transition will not be effective through regulator actions alone. Systems safety must be

infused into the management systems of airport operators if it is to have the desired effect on safety outcomes.

2.2 Airport certification procedures will incorporate the regulatory requirements for SMS and will comply with ICAO Annex 14 standards. FAA regulations are being amended to include SMS as part of the certification process.

2.3 The FAA, in concert with the Transportation Research Board's Airport Cooperative Research Program (ACRP), is conducting research to develop a guide for airport operators to define, establish, and implement an acceptable SMS. This research resulted in the document, "Safety Management Systems for Airports." This study provides a quick SMS introduction for airport directors.

2.4 In February 2007, the FAA issued Advisory Circular 150/5200-37, *Introduction to Safety Management Systems for Airport Operators*, that provides a conceptual introduction to SMS processes and interfaces between the operator's SMS and the FAA oversight system. The appendix to this document delivers an example of a SMS standard for use by certificated airport operators. Once FAA incorporates SMS into its regulations, we will update the Advisory Circular to provide additional guidance for compliance with the SMS rule.

2.5 The FAA has completed a pilot program to help develop an SMS requirement at U.S. airports and implement SMS at airports. Under this program, the FAA made Airport Improvement Program (AIP) grants available to 20 airports to fund development of their initial SMS plan. The results of these concept trials will be used to refine policy and guidance for other airport operators. As part of the pilot program, airport operators reviewed existing safety standards to determine if they meet the intent of SMS requirements. These results, referred to as "Gaps" were analyzed for solutions. The airport operators then developed an SMS manual and implementation plan.

2.6 As the FAA began analyzing documents prepared under the pilot program, it became evident that more information was needed on the development, implementation, and impact of SMS at smaller scale certificated airport operations. Therefore, the FAA initiated a second pilot program open to ten small scale certificated airports that held a Class II, III, or IV Airport Operating Certificate. Airports participating in the second program were also eligible for grant assistance and were required to complete the same deliverables as the airports participating in the first program. FAA plans to analyze the documents received from these airports and compare them to those obtained through the first pilot program.

2.7 The FAA has also initiated a project to amend Part 139, the regulation that establishes safety and certification standards for commercial service airports to include a requirement for certificated airports to implement SMS. Some SMS airport elements are written safety policies, formalized safety risk assessments, risk mitigation, internal audit systems, and enhanced safety communication programs. As with other regulatory development, the effort will include participation of airport operators and airport associations. The FAA anticipates issuing a proposed rule for comment in July 2010.

2.8 The FAA is developing procedures for incorporating SMS into our internal requirements beginning with integrating SMS into all airport development planning at the earliest stages. Airports will need to consider potential risks as they design new airport layouts or projects. They will have to document this procedure in a Safety Risk Management Document (SMRD). The SMRD will identify all the potential risk and quantify them to the extent practicable. High risk projects will not go forward unless the potential risk can be mitigated to an acceptable level before that project construction starts. SMS will help eliminate instances when projects are well underway before problems with airspace or other operating procedures are discovered that require expensive modification to construction plans.

3. **Conclusions**

3.1 The FAA fully endorses the ICAO initiative to implement SMS for airport operators in accordance with recently adopted amendments to Annex 14. The FAA believes the SMS requirements provide practical tools for systemic risk management and improvement in aviation safety.

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