

SMS in Aviation

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Agenda

- **Introduction**
- **What is SMS?**
- **Continuous Risk Management**
- **SMS Implementation**
- **SMS Resources**
- **Voluntary SMS Programs**
- **Rulemaking**
- **Benefits of SMS**



Introduction

- Safety Management Systems (SMS) have been around for 20+ years and has become a standard throughout the aviation industry worldwide.
- SMS is recognized by the Joint Planning and Development Office (JPDO), International Civil Aviation Organization (ICAO), other civil aviation authorities (CAAs), product/service providers and other government agencies.



What is SMS?

- SMS: A formal, top down, organization-wide approach to managing safety risks and assuring the effectiveness of safety risk controls - *SMS is all about safety decision-making throughout the organization.*
- Product/service providers and regulators strive to integrate modern safety risk management and safety assurance concepts into repeatable, proactive systems through the use of SMS principles.
- SMS emphasizes safety management as a fundamental business process to be considered in the same manner as other aspects of business management.



What is SMS?

- A structured means of safety risk management **decision making**
- A means of demonstrating safety **management capability** before system failures occur
- Increased confidence in **risk controls** through structured **safety assurance** processes
- An effective interface for **knowledge sharing** between regulator and certificate holder
- A **safety promotion** framework to support a sound **safety culture**



Continuous Risk Management

- SMS allows for real-time visibility into a company's safety performance
- An organization must regularly ask and find answers to key questions, such as:
 - Are we living up to our company standards?
 - Are we performing the same as the day we went under contract?
- Continuous risk management leads to performance based results
- Performance changes over time create a snapshot of safety culture



SMS Implementation

- Implementation methods vary
- SMS at a small organization will likely look different than one at a large organization – *this is OK*
- Simple SMS programs vs complex SMS programs

SMS is scalable!



SMS Resources

- **SMS resources available to the industry –**
 - FAA Voluntary SMS Programs
 - 14 CFR Part 5, *Safety Management Systems*
 - SM-0001, International Industry Standard, *Implementing a Safety Management System in Design, Manufacturing and Maintenance Organizations*
 - NAS 9927, *Safety Management System Practices for Design and Manufacturing*
 - Alphabet Groups

***Not all-inclusive**



Voluntary SMS Programs

- Voluntary SMS Programs exist in Flight Standards and Aircraft Certification
- The FAA uses standardized criteria to determine if the requestors SMS meets the intent of the requirements in 14 CFR Part 5, *Safety Management Systems*
- Provides State recognition for the participant's SMS
- Allows participants to begin aligning their system to the anticipated SMS rule



Rulemaking

- **14 CFR Part 5, *Safety Management Systems*** – published in 2015 and applicable to Part 121, Operating Requirements
- **Rulemaking being considered for:**
 - Part 21, Certification Procedures for Products and Articles
 - Part 135, Operating Requirements: Commuter and on Demand Operations and Rules Governing Persons on Board Such Aircraft
 - Part 145, Repair Stations
 - Part 91.147, Passenger carrying flights for compensation or hire
- **NPRM scheduled for Sept 30th release**
- **Aircraft Certification Safety and Accountability (ACSA) Act**



Benefits of a Safety Management System

- Safety Benefit – connecting the supply chain through common safety requirements
- Continuous Risk Management
- Alignment with International Civil Aviation Organization (ICAO) and member states
- Aircraft Certification Safety and Accountability (ACSA) Act
- Interoperability with other SMS rules



Questions?

