

International Issues in SMS Implementation

Presented to: NATA/ACSF Safety Symposium

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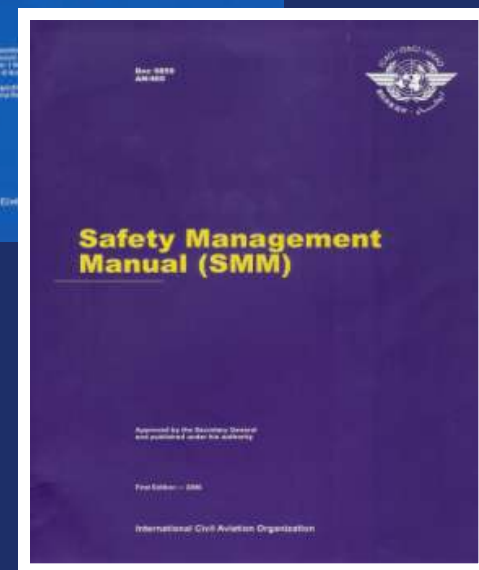


Federal Aviation
Administration



The ICAO View of SMS

- A systematic approach to managing safety
 - includes the necessary organizational structures, accountabilities, policies and procedures
- Providers are responsible for establishing an SMS
- States are responsible for the acceptance and oversight for providers' SMS



ICAO Annex 6
ICAO Doc. 9859 (SMM)

ICAO Annex 6

Annex 6 – International Operation of Aircraft

- Part I - Commercial Air Transport - Aeroplanes
- Part II - General Aviation - Aeroplanes
- Part III - Operations - Helicopters



ICAO Annex 6 Part I (Commercial)

- “From 1 January, 2009, States shall require, as part of their safety programme, that a [service provider] implement a safety management system acceptable to the State...”
- The U.S. has filed a difference with ICAO
- Currently, there are no FAA authorized procedures to accept of approve SMS's



Annex 6 Part II (GA)

- **7th Edition**
 - Published July 1, 2008
 - Applicable Nov. 18, 2010
- **Three Sections**
 - Section 1 General
 - Section 2 General Aviation Operations
 - Section 3 Large and Turbojet Aeroplanes



New For Large & Turbojet Aeroplanes (ANNEX 6 Part II)

- SMS
- Operations manual
- Fatigue management system
- Operational control procedures
- Flight crew training program
- MEL (where an MMEL has been established)
- Maintenance program



Annex 6 Part II SMS Requirements

3.3.2 Safety Management System

3.3.2.1 An operator shall establish and maintain a safety management system that is appropriate to the size and complexity of the operation.

3.3.2.2 **Recommendation.**— *The safety management system should as minimum include:*

- a) *a process to identify actual and potential safety hazards and assess the associated risks;*
- b) *a process to develop and implement remedial action necessary to maintain an acceptable level of safety; and*
- c) *provision for continuous monitoring and regular assessment of the appropriateness and effectiveness of safety management activities.*

ICAO Doc 9859

The ICAO Safety Management Manual (SMM – 2nd Edition)

- This manual provides more detailed guidance and standardization for implementing SMS
- Available on:
<http://www.icao.int>



Recognition and Approval of Foreign Operators

- ICAO
- U.S.
- Transport Canada
- EASA



FOQA History



- 2002 – Implement and maintain a FOQA program – ICAO
“Recommended Practice”

- 2005 – Implement and maintain a FOQA program – ICAO
“Standard”*
- US files a difference from ICAO Standard Practice on FOQA (ICAO Annex 6, Chapter 3) – FOQA remains Voluntary in U.S.

*Required for airplanes greater than 27,000kg.

*Recommended for airplanes greater than 20,000kg.

FAA Approved FOQA Programs

- Advisory Circular 120-82
- Provides guidance on how to develop, implement, and operate a voluntary FOQA program
- Contains a sample FOQA Implementation & Operations Plan
- Programs approved through CHDO/AFS-230

ICAO SMM Framework: Nov. 18, 2010*

- ① **Safety policy and objectives**
 - 1.1 – Management commitment and responsibility
 - 1.2 – Safety accountabilities
 - 1.3 – Appointment of key safety personnel
 - 1.4 – Coordination of emergency response planning
 - 1.5 – SMS Documentation
- ② **Safety risk management**
 - 2.1 – Hazard identification
 - 2.2 – Safety Risk assessment and mitigation
- ③ **Safety assurance**
 - 3.1 – Safety performance monitoring and measurement
 - 3.2 – The management of change
 - 3.3 – Continuous improvement of the SMS
- ④ **Safety promotion**
 - 4.1 – Training and education
 - 4.2 – Safety communication

*Annex 6, Part I Amdt 33



ICAO and FAA SMS Framework



Elements:

Elements:

1.1 Safety Policy

Elements:

4.1 Competencies and Training

Process 4.1.1 Personnel requirements

Process 4.1.2 Training

4.2 Communication and Awareness

3.3 Continual Improvement

- Process 3.3.1 Preventive/corrective action
- Process 3.3.2 Management review

SMS Rulemaking

- One rule for all types of service providers
- Aviation Rulemaking Committee (ARC)
 - Associations representing industry
 - Working groups from service providers
- Advance Notice of Proposed Rulemaking (ANPRM)
 - Initial solicitation for information comment from public
 - No proposed rulemaking language
 - ARC is reviewing comments

SMS Voluntary Implementation: Pilot Projects

- Pilot Project activities commenced in 2007
- Voluntary SMS development
- AFS combined effort
- Objectives are to Develop:
 - Implementation strategies,
 - Oversight interfaces, and
 - Gain experience for FAA and Service Providers



Current SMSPP Guidance Material

- AC 120-92
- SMS Framework (Draft AC 120-92A)
 - AC 120-92 Appendix 1 in ICAO structure
 - Same expectations as in original
 - Performance objectives added
- SMS Assurance Guide
 - Based on Framework
 - Uses process attributes
- Implementation Guide
- (Coming Soon) Guidebooks



Lessons Learned: Emerging Results and Issues

- Viewing SMS as a traditional safety program rather than a management system
- Operational/top management not involved
- SMS Manual \neq SMS
- Risk Management and Assurance processes as “report processing systems”

Issues (cont.)

- Flowcharts without procedures
- Procedures without flow
- Poor integration
- Poor documentation



SMS Public Website

<http://www.faa.gov/about/initiatives/sms/>



“Carelessness and overconfidence are more dangerous than deliberately accepted risk”
Wilbur Wright, 1901

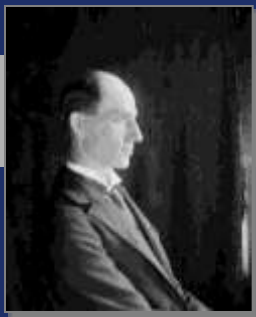
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Wilbur Wright gliding, 1901
Photographs: Library of Congress

