SAFETY MANAGEMENT MANUAL (SMM), 4th ED HIGHLIGHTS

Evolution of SMM

2018

2013

SMM 4th edition

2009

SMM 3rd edition

SMM 2nd edition

2006

SMM 1st edition

Doc 9859

Safety Management Manual

Fourth Edition, 2018

Approved by and published under the authority of the Secretary General.

INTERNATIONAL CIVIL AVIATION ORGANIZATION

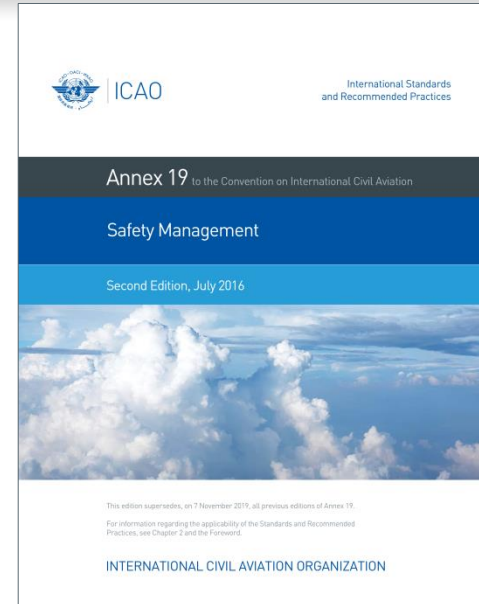Safety Management Manual (SMM)
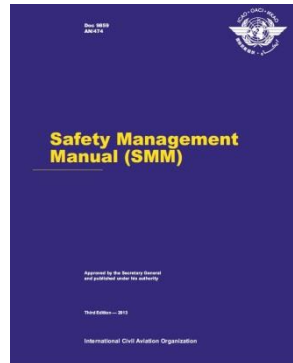
16 key differences
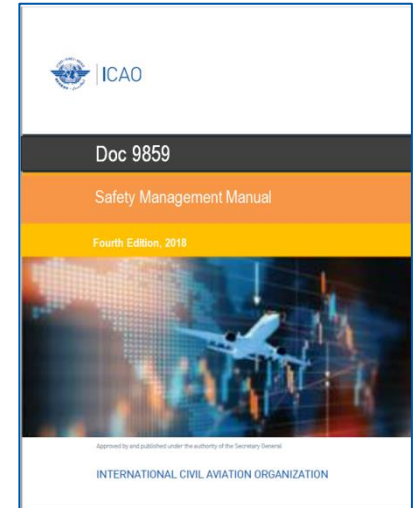
The advance unedited version of the 4th edition of the SMM is available for download from ICAO-NET

Update was initiated

➢ To address the changes introduced by Annex 19, amendment 1 adopted on 2 March 2016

➢ To reflect the knowledge and experience gained since the last revision

ICAO | International Standards and Recommended Practices

Annex 19 to the Convention on International Civil Aviation

Safety Management

Second Edition, July 2016

This edition supersedes, on 7 November 2019, all previous editions of Annex 19.
For information regarding the applicability of the Standards and Recommended Practices, see Chapter 2 and the Foreword.

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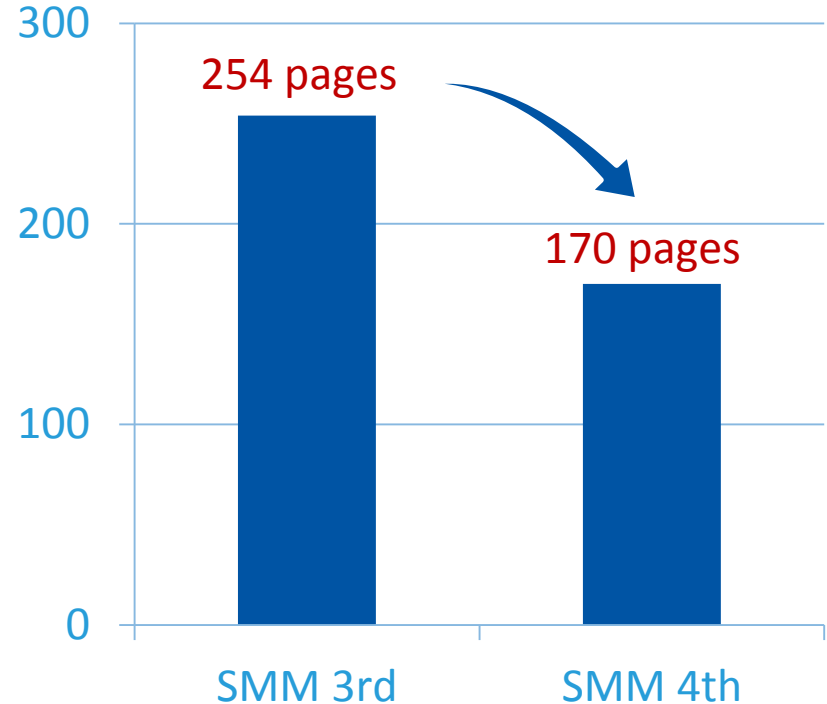
Effective from 11 July 2016 → **Applicable from 7 November 2019**

Fewer Pages

➢ Less prescriptive to support tailoring to the needs and operational context of each organization

➢ More focused on the intended outcomes of each activity and process to support effective implementation

254 pages

170 pages

300

200

100

0

SMM 3rd   SMM 4th

Complementary Safety Management Implementation (SMI) public website (www.icao.int/SMI)

> Many examples and tools from the 3rd edition of SMM *updated and moved (not lost!!)* to the SMI website

> *Additional* examples and tools will be collected, validated and posted on the SMI public website

> *Free* e-book version of advance unedited SMM included!!!

SSP and SMS commensurate with the size and complexity

➢ General guidance on scalability contained in Chapter 1

➢ The guidance has been updated with a **focus on intended outcomes and performance** in order to achieve **effective implementation**.

➢ "Commensurate with size and complexity" better explained and to be supported and by additional practical examples and tools on the SMI public website (www.icao.int/SMI)

New Structure

| CHAPTER 1 - Introduction |
| CHAPTER 2 - Safety management fundamentals |
| CHAPTER 3 - Safety culture |

Safety management fundamentals

| CHAPTER 4 - Safety performance management |
| CHAPTER 5 - Safety data collection and processing systems |
| CHAPTER 6 - Safety analysis |
| CHAPTER 7 - Protection of safety data, safety information and related sources |

Developing safety intelligence

| CHAPTER 8 - State safety management |
| CHAPTER 9 - Safety management systems |

Safety management implementation

The benefits of safety management

➢ Expected benefits of safety management are highlighted

➢ To support a clear understanding of what safety management, effectively implemented, can achieve

The scope and applicability of safety management provisions

➤ Expanded introduction to address the **scope** of safety management provisions and their **applicability**

➤ Extension of **discretionary SMS applicability** newly added

➤ Guidance on applicability for **State-owned** or **military aviation service providers**

1.2   SAFETY MANAGEMENT APPLICABILITY

State safety management responsibilities are outlined in Annex 19, Chapter 3, and include requiring service providers identified in the SARPs to implement SMS. Provisions related to the implementation of SMSs by service providers may be found in Chapter 4 and Appendix 2 of Annex 19.

1.2.1   SMS applicability

1.2.1.1   The assessment to determine the applicability of SMS for Amendment 1 to Annex 19 was based on a set of criteria. These same criteria are expected to be used periodically by ICAO and the Safety Management Panel (SMP) to reassess the need to extend the applicability to other aviation organizations.

1.2.2   Extension of discretionary SMS applicability

1.2.2.1   The applicability criteria outlined above may also serve as guidance for States when considering an extension of SMS applicability beyond that defined in Annex 19 or the promotion of voluntary implementation. Application of discretionary SMS applicability should be thoughtfully considered. The decision to extend the SMS applicability to sectors or service providers should take into account the safety risks identified in the State and if the

1.2.4   Applicability for State-owned or military service providers

1.2.4.1   In some States, the service provider function is provided by the State civil service or military. Some civilian service providers provide contracted services to the military, and some military organizations provide civilian service. Regardless of the arrangement, the service provider providing the civilian service in the State should be required to address all the applicable ICAO SARPs, including the Annex 19 SMS requirements without regard to the specific nature of such organization. The State or service provider's system description should have regard for the functions of these organizations and their relationship to each other. The accountable executive of the service provider, whether civil or military, should be capable of explaining the arrangements and how safety risks are managed. Put simply, service providers should manage safety regardless of the organizational arrangements.

1.2.4.2   Where the State operates as a service provider there should be a clear separation between its functions as the service provider and that of the State regulatory authority. This is accomplished by having clearly defined roles and responsibilities for State authority and service provider personnel to avoid any conflicts of interest.

Integrated Risk Management

➢ Introduction of the notion of integrated risk management in Chapter 1 to **create awareness** of the impact other domains have on the management of safety risk and vice versa

➢ Importance of focus on **overall risk reduction** for the organization (State or service provider)

Entire chapters devoted to Safety culture and the Protection of safety data, safety information and related sources

➤ Guidance on the promotion of a positive safety culture

➤ Basic principles governing the protection of safety data and safety information, and guidance for the implementation

Chapter 3. Safety culture

3.1 Introduction
3.2 Developing a positive safety culture

Chapter 7. Protection of safety data, safety information and related sources

7.1 Objectives and content
7.2 Fundamental principles
7.3 Scope of protection
7.4 Level of protection
7.5 Principles of protection
7.6 Principles of exception
7.7 Public disclosure
7.8 Protection of recorded data
7.9 Safety information sharing and exchange

Safety oversight CEs integrated with SSP elements

➢ Chapter 8 – State Safety Management Responsibilities reflects the SSP with the State safety oversight (SSO) system critical elements (CEs) as the foundation of SSP

➢ The CEs are integrated throughout the components as shown on the next slide

➢ The term "framework" is no longer used in reference to SSP

8 CEs of SSO

SSP
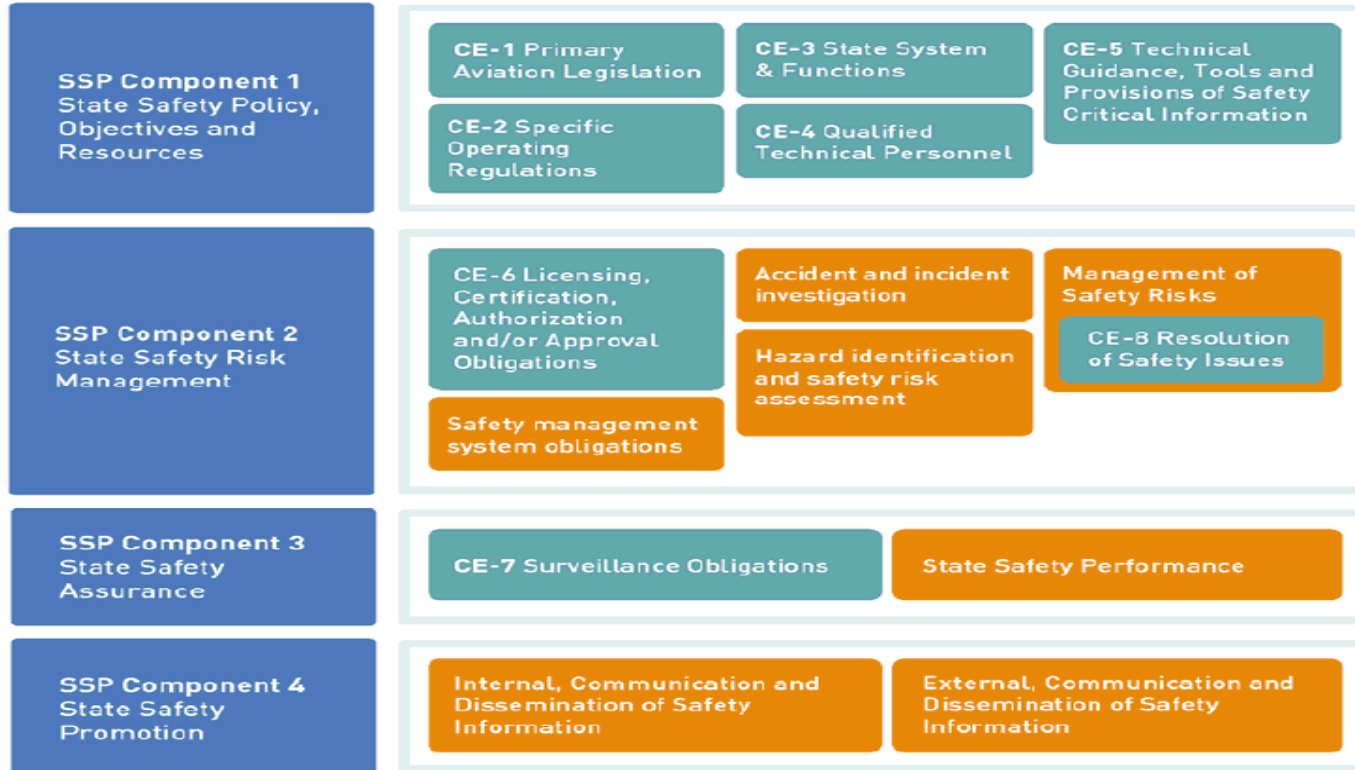
INTEGRATION

SSP Safety Promotion

➢ Due to the integration of the SSP elements with the SSO system, the State Safety Promotion Component is now focused on internal/external communication and dissemination of information

➢ Internal training of State personnel involved in the implementation of SSP is covered under Component 1 which now includes "Resources" in the title

➢ External training for industry is considered the responsibility of industry and is addressed under Component 2, Safety risk management as part of the acceptance of the SMS
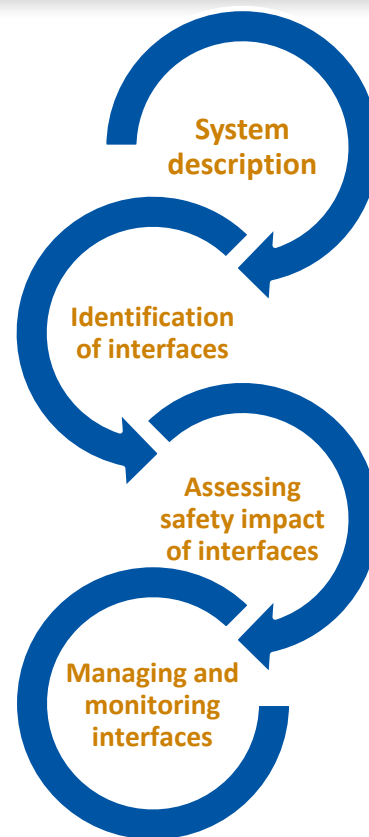
Training Needs Analysis (TNA)

➤ General guidance on performing a Training Needs Analysis in Chapter 9 for service providers, but can also be used for States to develop inspector competencies

➤ Training topics for accountable executives and senior managers are provided

System description and interfaces

➢ General guidance on importance of a system description and identifying and managing interfaces contained in Chapter 1

➢ Specific guidance directed at States under SSP Implementation in Chapter 8

➢ Specific guidance directed at service providers under SMS Implementation in Chapter 9

System description

Identification of interfaces

Assessing safety impact of interfaces

Managing and monitoring interfaces

Safety objectives and Safety performance

➢ Strengthened link between safety objectives and safety performance in Chapters 4, 8 and 9

➢ More flexibility in how the safety performance framework is defined

Acceptable Level of Safety Performance (ALoSP)

➤ Specific guidance **for States** under State Safety Performance section in Chapter 8.

➤ The linkage between ALoSP and safety performance management activities of service providers is explained

➤ ALoSP represents an **agreement between all the State aviation authorities** of the **expected level of safety performance** that the aviation system should deliver

| CONTEXT |
| OBJECTIVES |
| SPIs & SPTs |
| ALoSP agreed |
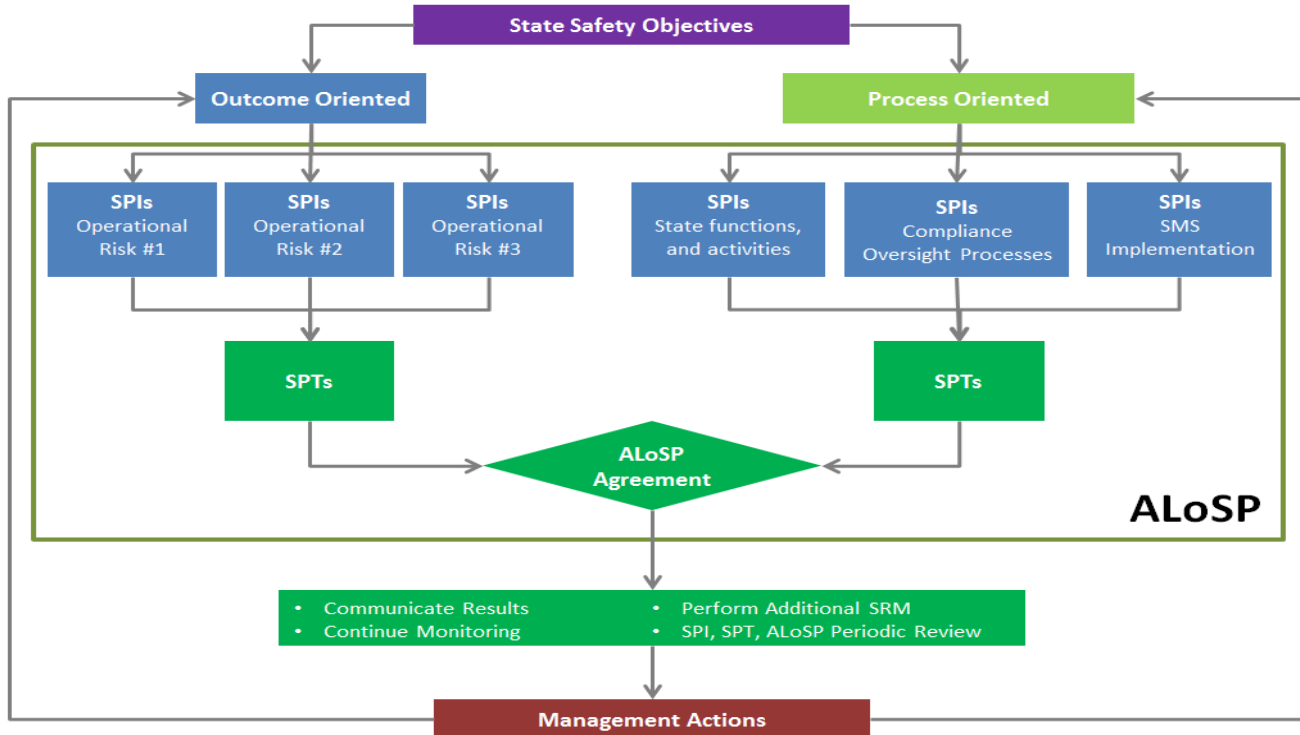
Management of change

➢ Enhanced guidance on Management of Change in Chapters 8 and 9 for States and service providers, respectively

8.5.6   **Management of change: State perspective**

8.5.6.1   Annex 19 does not explicitly require a State to establish formal activities for the management of change under the SSP. However, changes are an ever-present fact in the contemporary aviation system. When changes are introduced into a system, the established safety risk picture of the system will change. Changes may introduce hazards that may impact the effectiveness of existing defences. This could result in new risk or changes to existing safety risks. States should evaluate and manage the impact of change in their aviation systems.

9.5.6   **The management of change**

9.5.6.1   Service providers experience change due to a number of factors including, but not limited to:

a)   organizational expansion or contraction;

b)   business improvements that impact safety; these may result in changes to internal systems, processes or procedures that support the safe delivery of the products and services;

Integration of management systems

➢ Enhanced guidance on the integration of management systems, including the integration of SMS and QMS in Chapter 9