



ICAO

Doc 10158

# Manual on Safety Management in Cabin Operations

First Edition, 2022



Approved by and published under the authority of the Secretary General

INTERNATIONAL CIVIL AVIATION ORGANIZATION





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## FOREWORD

Annex 19 — *Safety Management* contains overarching provisions applicable to safety management functions related to, or in direct support of, the safe operation of aircraft. It contains Standards that mandate each State to implement a State safety programme (SSP) and for specific service providers, including aircraft operators authorized to conduct international commercial air transport, to implement a safety management system (SMS). The State's SSP must encompass all areas that have an impact on operational safety; this includes cabin operations and cabin safety-related activities. Cabin crew members also play an important proactive role in managing safety, including through the hazard identification and safety reporting, which can contribute to the prevention of incidents and accidents. It is important that cabin safety issues be addressed in the SSP to identify and assess the impact they may have on improving the State's overall safety performance. As is the case with the SSP, it is also important that cabin safety issues be addressed in the SMS to identify and assess the impact they may have on the operator's overall safety performance.

This manual was developed to address the lack of high-level guidance on the application of safety management to cabin operations, and the need to address cabin operations in the broader context of safety management, at both the State and operator levels. It provides guidance related to the inclusion of cabin operations aspects within the SSP and SMS, is in line with ICAO provisions found in Annex 19, and complements the guidance contained in the *Safety Management Manual* (Doc 9859). This manual addresses the different aspects that a State should consider when establishing and improving its SSP, as well as when accepting and overseeing an operator's SMS, to ensure both encompass cabin operations and cabin safety-related areas of commercial air transport as part of overarching safety management activities.

The manual provides guidance on the role of the State's cabin safety inspectors within the SSP. It also provides guidance on the use of reporting systems to capture issues related to cabin operations, means of writing meaningful reports, and the role of a positive safety culture in the level of reporting from cabin crew members. The manual addresses safety performance management within cabin operations and provides guidelines for the development of safety performance indicators (SPIs) and safety performance targets (SPTs) related to cabin safety for both the SSP and SMS.

This manual was developed with inputs from experts from civil aviation authorities, operators, aircraft manufacturers, training organizations and international organizations. It was subsequently submitted for an extensive peer review to account for comments from the expert community.

ICAO gratefully acknowledges the contributions of the ICAO Safety Management Panel and the ICAO Cabin Safety Group and experts who provided support, advice and input for this manual.





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# GLOSSARY

## DEFINITIONS

**Air operator certificate (AOC).** A certificate authorizing an operator to carry out specified commercial air transport operations.

**Cabin safety inspector.** A qualified person authorized by the State to carry out safety oversight of the cabin safety-related aspects of civil air transport operations.

**Cabin crew member.** A crew member who performs, in the interest of safety of passengers, duties assigned by the operator or the pilot-in-command of the aircraft, but who shall not act as a flight crew member.

**Cabin electronic flight bag (C-EFB).** An electronic information system, comprised of equipment and applications for cabin crew, which allows for the storing, updating, displaying and processing of C-EFB functions to support flight and cabin operations or duties.

**Change management.** A formal process to manage changes within an organization in a systematic manner, so that changes which may impact identified hazards and risk mitigation strategies are accounted for, before the implementation of such changes.

**Civil aviation authority (CAA).** The governmental entity or entities, however titled, that are directly responsible for the regulation of all aspects of civil air transport, technical (i.e. air navigation and aviation safety) and economic (i.e. the commercial aspects of air transport).

**Commercial air transport operation.** An aircraft operation involving the transport of passengers, cargo or mail for remuneration or hire.

**Hazard.** A condition or an object with the potential to cause or contribute to an aircraft incident or accident.

**Inspection.** An examination of specific activities, products or services of an aviation licence, certificate, approval or authorization holder (or applicant) performed by civil aviation inspectors to confirm compliance with requirements for the licence, certificate, approval or authorization already issued (or being issued) by the State.

**Maximum mass.** Maximum certificated take-off mass.

**Operations manual.** A manual containing procedures, instructions and guidance for use by operational personnel in the execution of their duties.

**Operator.** The person, organization or enterprise engaged in or offering to engage in an aircraft operation.

**Risk mitigation.** The process of incorporating defences, preventive controls or recovery measures to lower the severity and/or likelihood of a hazard's projected consequence.

**Safety.** The state in which risks associated with aviation activities, related to, or in direct support of the operation of aircraft, are reduced and controlled to an acceptable level.

**Safety enhancement initiative (SEI).** One or more actions to eliminate or mitigate risks associated with contributing factors to a safety occurrence or to address an identified safety deficiency.

**Safety management system (SMS).** A systematic approach to managing safety, including the necessary organizational structures, accountability, responsibilities, policies and procedures.

**Safety objective.** A brief, high-level statement of safety achievement or desired outcome to be accomplished by the State safety programme or service provider's safety management system.

*Note.— Safety objectives are developed from the organization's top safety risks and should be taken into consideration during subsequent development of safety performance indicators and targets.*

**Safety oversight.** A function performed by a State to ensure that individuals and organizations performing an aviation activity comply with safety-related national laws and regulations.

**Safety performance.** A State or a service provider's safety achievement as defined by its safety performance targets and safety performance indicators.

**Safety performance indicator.** A data-based parameter used for monitoring and assessing safety performance.

**Safety performance target.** The State or service provider's planned or intended target for a safety performance indicator over a given period that aligns with the safety objectives.

**Safety risk.** The predicted probability and severity of the consequences or outcomes of a hazard.

**State of the Operator.** The State in which the operator's principal place of business is located, or if there is no such place of business, the operator's permanent residence.

**State safety programme (SSP).** An integrated set of regulations and activities aimed at improving safety.

**Surveillance.** The State activities through which the State proactively verifies through inspections and audits that aviation licence, certificate, authorization or approval holders continue to meet the established requirements and function at the level of competency and safety required by the State.

## ACRONYMS AND ABBREVIATIONS

AOC	Air operator certificate
CAA	Civil aviation authority
CCOM	Cabin crew operations manual
C-EFB	Cabin electronic flight bag
CRS	Child restraint system
CSR	Cabin safety report
CSI	Cabin safety inspectors
ERP	Emergency response plan
PED	Portable electronic device
MEL	Minimum equipment list
NASP	National aviation safety plan
RFF	Rescue and firefighting
SARP	Standard and Recommended Practice
SAG	Safety action group

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SEI	Safety enhancement initiative
SME	Subject matter expert
SMS	Safety management system
SPI	Safety performance indicator
SPT	Safety performance target
SRB	Safety review board
SRM	Safety risk management
SSP	State safety programme

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# Chapter 1

## INTRODUCTION

### 1.1 BACKGROUND

1.1.1 ICAO defines “safety” as the state in which risks associated with aviation activities, related to, or in direct support of the operation of aircraft, are reduced and controlled to an acceptable level. The identification of hazards and the reduction and control of safety risks are achieved through the implementation of safety management processes, both by the State and service providers. Annex 19 — *Safety Management* contains overarching provisions applicable to safety management functions related to, or in direct support of, the safe operation of aircraft. It contains standards that mandate each State to implement a State safety programme (SSP) and for specific service providers, including aircraft operators authorized to conduct international commercial air transport, to implement a safety management system (SMS).

1.1.2 Cabin safety contributes to the prevention of accidents and incidents and the protection of aircraft occupants through proactive safety management, including hazard identification, safety risk management (SRM) and the increase of survivability in the event of an emergency. Traditionally, the role of cabin crew members focused on the evacuation of an aircraft in the event of an accident. However, cabin crew members also play an important proactive role in managing safety, which can contribute to the prevention of incidents and accidents. As with other subject matter in the past, such as competency-based training and assessment, or accident investigation, ICAO identified the lack of high-level guidance on the application of safety management to cabin operations, and the need to address cabin operations in the broader context of safety management, at both the State and operator levels. The term “cabin operations” refers to all cabin safety-related areas, including, but not limited to: passenger handling, cabin safety procedures, cabin crew training programmes and cabin crew duty and rest policies.

1.1.3 An SSP should encompass all areas that have an impact on operational safety; this includes cabin operations and related activities. Cabin safety issues should be addressed in the SSP to identify and assess the impact they may have on improving the State’s overall safety performance.

1.1.4 The operator’s SMS should also encompass all areas that have an impact on operational safety; this also includes cabin operations and related activities. As is the case with the SSP, cabin safety issues should be addressed in the SMS to identify and assess the impact they may have on improving the operator’s overall safety performance.

1.1.5 Individual operators and their cabin crew members have a role to play in the framework of the SSP as their contributions, through each operator’s SMS, fit into the bigger picture of safety management at the national level. The State needs to clearly define the role of its cabin safety inspectors (CSIs) within its SSP, and train them accordingly. All these aspects combined assist the State in meeting its safety management obligations and, ultimately, in enhancing aviation safety.

1.1.6 The effectiveness of safety management depends on the degree of support and commitment from the organization’s senior management in fostering a work environment that optimizes human performance and encourages personnel to actively engage in, and contribute to, SSP/SMS safety management processes. Therefore, key senior managers, such as cabin safety and cabin crew safety training managers, play a key role within the SSP and the SMS.

*Note.— Detailed guidance on human performance in the context of safety management is presented in the Safety Management Manual (Doc 9859).*

## 1.2 PURPOSE

1.2.1 This manual provides guidance related to the inclusion of cabin operations aspects within the SSP and SMS. It is in line with Annex 19 provisions and complements the guidance contained in the *Safety Management Manual* (Doc 9859). It addresses the different aspects that a State should consider when establishing and improving its SSP, as well as when accepting and overseeing an operator's SMS, to ensure both encompass cabin operations aspects of commercial air transport as part of overarching safety management activities. This manual provides guidance on the CSI role within the SSP, as well as recommended content for the CSI training programme related to the SSP, to promote the standardization of approvals and surveillance activities, and ensure consistency among the CSIs when performing their tasks across multiple operators.

1.2.2 In addition, the manual provides guidance on the use of reporting systems to capture safety issues related to cabin operations, means for writing meaningful reports, and the role of a positive safety culture in the volume and quality of reporting of hazards and other safety issues by cabin crew members. It also addresses safety performance management within cabin operations and provides guidelines for the development of safety performance indicators (SPIs) and targets related to cabin safety, for both the SSP and SMS. For the purpose of this manual, the term "State" refers to the State of the Operator, unless specified otherwise.

## 1.3 SCOPE

The content of this manual is presented as guidance material. The approach outlined was developed as an acceptable means, but not the sole means, to implement safety management provisions in the context of cabin operations. Operators should consult specific requirements for the establishment of SMS with their State and comply with national regulations and operating rules, where applicable.

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## Chapter 2

# CABIN OPERATIONS AND THE STATE SAFETY PROGRAMME

### 2.1 GENERAL

2.1.1 An SSP is an integrated set of regulations and activities aimed at improving safety. As per Annex 19, each State must establish and maintain an SSP that is commensurate with the size and complexity of its civil aviation system.

*Note.— Detailed Standards and Recommended Practices (SARPs) related to an SSP are presented in Annex 19 — Safety Management.*

2.1.2 The State's SSP should encompass all areas affecting operational safety, including operators of aeroplanes authorized to conduct international commercial air transport, their cabin operations and related activities. It is important that issues related to cabin operations be addressed in the SSP to identify and assess the impact they may have on improving the State's overall safety performance.

2.1.3 Individual operators and their cabin crew members have a role to play within the SSP as their contributions, through each operator's SMS, fit in the bigger picture of safety management at the national level. The State needs to clearly define the role of its CSIs within its SSP and train them accordingly.

2.1.4 The following sections provide a summary of each component that forms an SSP and describes their relationship with cabin operations, including specific aspects related to cabin operations that the State should address as part of its SSP.

2.1.5 An SSP encompasses the following four components:

- a) State safety policy, objectives and resources;
- b) State safety risk management;
- c) State safety assurance; and
- d) State safety promotion.

### 2.2 STATE SAFETY POLICY, OBJECTIVES AND RESOURCES

#### 2.2.1 Overview

As part of its safety policy, objectives and resources, the State needs to address the following:

- a) primary aviation legislation;

- b) specific operating regulations;
- c) State system and functions;
- d) qualified technical personnel; and
- e) technical guidance, tools and provision of safety-critical information.

### **2.2.2 Primary aviation legislation and specific operating regulations**

In addition to promulgating a comprehensive and effective aviation law, the State should promulgate regulations to address, at a minimum, national requirements emanating from its primary aviation legislation, for standardized operational procedures, products, services, equipment and infrastructures in conformity with the Annexes to the Convention on International Civil Aviation (Chicago Convention, Doc 7300). As part of these regulations, the State should develop specific regulations related to cabin operations, in accordance with ICAO SARPs. The majority of SARPs related to cabin operations are found in Annex 6 — *Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes*. Table 2-1 presents the regulatory requirements related to cabin operations that the State's regulations should address, as minimum, as well as guidance materials for further details.

### **2.2.3 State system, functions and qualified technical personnel**

#### **2.2.3.1 State system and functions**

As part of the State system and functions, the State must establish relevant authorities or agencies, as appropriate, supported by sufficient and qualified personnel and provided with adequate financial resources for the management of safety. This includes the establishment of a civil aviation authority (CAA), whose qualified technical personnel should include one or more CSIs.

#### **2.2.3.2 Qualified technical personnel**

The CSI serves as the primary resource, cabin safety discipline subject matter expert (SME), and advisor to the CAA in all cabin safety-related areas, including passenger handling, cabin safety procedures, cabin crew member training programmes and cabin crew duty and rest policies. The State should provide the CSIs with appropriate facilities. It should develop technical guidance material and procedures, as well as tools and equipment needed for the completion of tasks, such as conducting surveillance at the operator in operations. The State should also maintain safety-critical information, relevant to cabin operations (e.g. airworthiness directives related to cabin equipment or systems, updates to the cabin crew operations manual (CCOM), safety notices to cabin crew). All these aspects enable the CSIs to perform standardized, effective oversight of cabin operations.

*Note.— The Manual on Civil Aviation Cabin Safety Inspectors (Doc 10134) provides guidelines on the development of qualifications, responsibilities, tasks and competencies of CSIs and the implementation of CSI training programmes.*

**Table 2-1 – State’s minimum regulatory requirements related to cabin operations**

<i>Regulatory requirement</i>	<i>Reference</i>	<i>Guidance material</i>
Assignment of emergency duties, including the minimum number of cabin crew required on board	Annex 6, Part I — 12.1	<i>Manual on the Establishment of Minimum Cabin Crew Requirements (Doc 10072)</i>
Cabin crew members and aircraft type qualification	Annex 6, Part I — 12.1	
Cabin crew at emergency evacuation stations, including cabin crew seats and safety harnesses	Annex 6, Part I — 12.2	
Cabin crew operations manual (CCOM), including the normal, abnormal and emergency procedures to be used by cabin crew	Annex 6, Part I — Appendix 2	<ul style="list-style-type: none"> <li>• <i>Guidance on the Preparation of an Operations Manual (Doc 10153)</i></li> <li>• <i>Manual on the Implementation and Use of Cabin Electronic Flight Bags (Doc 10111)</i></li> </ul>
Cabin crew safety training programme, including initial, recurrent and requalification training	Annex 6, Part I — 12.4	<ul style="list-style-type: none"> <li>• <i>Cabin Crew Safety Training Manual (Doc 10002)</i></li> <li>• <i>Guidelines on Digital Learning for Cabin Crew Training (Cir 356)</i></li> </ul>
Protection of cabin crew during flight	Annex 6, Part I — 12.3	<ul style="list-style-type: none"> <li>• <i>Cabin Crew Safety Training Manual (Doc 10002)</i></li> <li>• <i>Manual on Information and Instructions for Passenger Safety (Doc 10086)</i></li> </ul>
Transport and management of special categories of passengers	Annex 9 — 8.22 to 8.26	<ul style="list-style-type: none"> <li>• <i>Manual on Access to Air Transport by Persons with Disabilities (Doc 9984)</i></li> <li>• <i>Manual on Information and Instructions for Passenger Safety (Doc 10086)</i></li> </ul>
Dangerous goods, including training (as per Annex 18 — <i>The Safe Transport of Dangerous Goods by Air</i> )	Annex 6, Part I — 12.4(e) Annex 18 — 8.5, 10.1 and 10.2	<ul style="list-style-type: none"> <li>• <i>Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284)</i></li> <li>• <i>Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods (Doc 9481)</i></li> <li>• <i>Cabin Crew Safety Training Manual (Doc 10002)</i></li> </ul>

<i>Regulatory requirement</i>	<i>Reference</i>	<i>Guidance material</i>
Safety-related information and instructions that an operator should provide to passengers, including use of seat belts and emergency exits	Annex 6, Part I — 4.2.12.1, 4.2.12.2, 4.2.12.3 and 6.2.2(d)	<i>Manual on Information and Instructions for Passenger Safety</i> (Doc 10086)
Occupancy of emergency exit rows	Annex 6, Part I — 6.2.2(d)(5)	
Carry-on baggage	Annex 6, Part I — 4.8	
Passenger seats, seat belts and harnesses	Annex 6, Part I — 4.2.12.4 and 6.2.2(c)	<ul style="list-style-type: none"> <li>• <i>Cabin Crew Safety Training Manual</i> (Doc 10002)</li> <li>• <i>Manual on the Approval and Use of Child Restraint Systems</i> (Doc 10049)</li> <li>• <i>Manual on Information and Instructions for Passenger Safety</i> (Doc 10086)</li> <li>• <i>Guidance on the Preparation of an Operations Manual</i> (Doc 10153)</li> </ul>
Minimum equipment list (MEL) in the cabin	Annex 6, Part I — 6.1.3	<i>Guidance on the Preparation of an Operations Manual</i> (Doc 10153)
Cabin safety and emergency equipment	Refer to Doc 10153, Attachment A to Chapter 11 for full list of SARPs related to equipment	
Medical supplies	Annex 6, Part I — 6.2.2 (a) and Attachment A	
Aviation security, including security of the flight deck, aircraft search procedures, and reporting acts of unlawful interference	Annex 6, Part I — 13.2.3 and 13.3	<ul style="list-style-type: none"> <li>• <i>Aviation Security Manual</i> (Doc 8973 — Restricted)</li> <li>• <i>Manual on the Implementation of the Security Provisions of Annex 6</i> (Doc 9811 — Restricted)</li> </ul>
Cabin crew security training programme	Annex 6, Part I — 13.4	<i>Cabin Crew Safety Training Manual</i> (Doc 10002)
Fatigue management, including flight and duty time limitations for cabin crew members	Annex 6, Part I — 4.10 and Appendix 7	<ul style="list-style-type: none"> <li>• <i>Manual for the Oversight of Fatigue Management Approaches</i> (Doc 9966)</li> <li>• <i>ICAO-IATA-IFALPA Fatigue Management Guide for Airline Operators</i></li> </ul>
Portable electronic devices (PEDs)	Annex 8 — 6.1.2(c) and 6.5	<i>Guidelines for the Expanded Use of Portable Electronic Devices</i> (Cir 340)

*Note.— If the State mandates training on identifying and responding to trafficking in persons for cabin crew, this should be included in the State’s minimum regulatory requirements related to cabin operations. Detailed guidance on the content of crew training of trafficking in persons can be found in the Guidelines for Training Cabin Crew on Identifying and Responding to Trafficking in Persons (Cir 352), and the Guidelines for Reporting Trafficking in Persons by Flight and Cabin Crew (Cir 357).*

#### **2.2.4 Technical guidance, tools and provision of safety-critical information**

The State should provide CSIs with the necessary tools, such as transportation as applicable, offices, telephones, access to internet and other communication facilities, to enable the effective accomplishment of their tasks. The State should also provide technical guidance to the aviation industry to facilitate the implementation of cabin operations-related regulations. This guidance includes advisory materials which present acceptable means of compliance to regulations and provide detailed examples. In cabin operations, the State should, as a minimum, issue guidance on the following topics:

- a) minimum cabin crew requirements;
- b) cabin crew safety and security training programmes (and licensing requirements, if applicable to the State);
- c) CCOM content;
- d) implementation and use of cabin electronic flight bags (C-EFBs);
- e) information and instructions for passenger safety (including carry-on baggage policy and procedures, safety demonstration, and passenger safety briefing cards);
- f) fatigue management (including flight and duty time limitations for cabin crew members);
- g) approval and use of child restraint system (CRS); and
- h) use of PEDs.

*Note.— Technical guidance, tools and provision of safety-critical information are contained in the Safety Oversight Manual, Part A — The Establishment and Management of a State Safety Oversight System (Doc 9734).*

### **2.3 STATE SAFETY RISK MANAGEMENT**

2.3.1 The State’s SRM component of its SSP encompasses different means and methods that serve as risk controls at the national level. These include:

- a) licensing, certification, authorization and approval obligations;
- b) SMS obligations and regulatory requirements;
- c) accident and incident investigation;
- d) hazard identification and safety risk assessment; and
- e) management of safety risks.

### 2.3.2 Licensing, certification, authorization and approval obligations

2.3.2.1 The State should implement documented processes and procedures to ensure that cabin crew members, operators and cabin crew training organizations meet the established requirements before they are allowed to exercise the privileges of a licence, certificate, authorization or approval to conduct the relevant aviation activity (i.e. to perform as a cabin crew member, conduct passenger flights and deliver training).

*Note.— There is no requirement in the Annexes to the Convention on International Civil Aviation for cabin crew members to hold a licence.*

2.3.2.2 As part of the procedure for the application and granting of an air operator certificate (AOC), the State needs to evaluate several aspects of the operator's SMS related to cabin operations and cabin safety:

- a) complete description of the qualifications required for, and the responsibilities of, the cabin safety department manager (or equivalent), as one of the key management positions at the operator;
- b) operator's management structure and key staff members, including the key cabin safety personnel (i.e. cabin safety department manager, cabin crew training manager, cabin safety instructors and evaluators);
- c) CCOM;
- d) cabin crew training manual;
- e) cabin crew competence and training programme(s);
- f) cabin crew member records;
- g) passenger safety briefing cards;
- h) conduct of a demonstration of the adequacy of aircraft emergency procedures, crew member emergency evacuation training and emergency equipment (commonly referred to as an evacuation demonstration); and
- i) the conduct of an in-flight inspection, focusing on the various cabin items to be checked by the CSI to evaluate the performance of cabin crew members with regard to their effectiveness in performing their assigned duties and the fulfilment of their responsibilities.

*Note.— Guidance on the issuance of an AOC is contained in the Manual of Procedures for Operations Inspection, Certification and Continued Surveillance (Doc 8335).*

### 2.3.3 SMS obligations and regulatory requirements

A key part of an effective SSP is the relationship with each operator's SMS. The State shall require that operators implement an SMS in accordance with Annex 19. The State should ensure operators implement an SMS that encompasses all areas that have an impact on operational safety; this includes cabin operations and related activities. Refer to Chapter 3 for further details.

### 2.3.4 Accident and incident investigation

As part of its SSP, the State must establish a process to investigate accidents and incidents in accordance with Annex 13 — *Aircraft Accident and Incident Investigation*, in support of the management of safety at the national level. Cabin safety aspects, including survival factors, should be addressed as part of the accident and incident investigation process. The goal of a cabin safety investigation is to analyse all aspects of an accident or incident in relation to the actions of cabin crew members and passengers, as well as the cabin environment and relevant systems and equipment on board, in order to identify safety deficiencies and lessons learned. The investigation may result in the development of recommendations related to operator procedures, fatigue (e.g. scheduling practices), training, safety and emergency equipment, aircraft systems, etc.

*Note.— Guidance on accident and incident investigation specific to cabin safety and survival factors is contained in the Manual on the Investigation of Cabin Safety Aspects in Accidents and Incidents (Doc 10062).*

### 2.3.5 Hazard identification and safety risk assessment

2.3.5.1 A key part of the SSP is the establishment and implementation of a process to identify hazards from aggregated data from multiple sources, including safety reporting systems, inspections, and audits, as well as a process that ensures the assessment of safety risks associated with identified hazards (i.e. safety risk assessment). As part of its SSP, the State needs to identify hazards and emerging risks across its aviation system. In this sense, the State has a macro-approach, in that it focuses on hazards and risks that may be common across several operators, approved training organizations, airports, air navigation service providers, etc. To identify hazards, the State should rely on safety data aggregated from multiple sources. A voluntary safety reporting system is an important mechanism for proactive hazard identification. In addition, the State's SSP must include mechanisms for the resolution of safety issues (i.e. safety risk mitigation).

*Note.— Guidance on the resolution of safety issues is contained in the Safety Oversight Manual, Part A — The Establishment and Management of a State Safety Oversight System (Doc 9734).*

2.3.5.2 The State should direct the operator(s) to accomplish effective SRM implementation as part of its SMS, and may need to monitor the effectiveness of the safety risk controls and their impact on both the operator's, and collectively, the State's safety performance. Chapter 3, 3.3, provides guidance on the operator's SRM process and its link to cabin operations. Through its SRM process, the operator identifies hazards related to cabin operations through a combination of methods, with the goal of mitigating safety risks related to its operation. In this sense, the operator has a micro-approach, in that it focuses on hazards and risks that are specific to its organization, operations, aircraft types, route network, etc. Although some of the hazards identified may be common to other operators (e.g. who operate the same aircraft type or route), the operator's SRM process enables it to implement safety risk mitigations tailored to its needs and operational context.

2.3.5.3 As part of its SSP, the State should apply the concept of SRM to all aspects of cabin operations, including:

- a) rulemaking and surveillance related to cabin operations, including passenger safety aspects;
- b) issuing regulatory exemptions or alleviations;
- c) revising operator procedures and documentation (e.g. CCOM);
- d) operator's cabin crew training content;
- e) cabin crew performance, including during incidents and accidents;

- f) approval/certification of equipment and furnishings on board aircraft, including new products and retrofits of cabin interiors; and
- g) analysis of the operational environment and its impact on operational safety at the national level.

2.3.5.4 The State should establish a means to determine whether each operator's SMS processes are acceptable; this includes the identification of hazards related to cabin operations and the management of associated safety risks. The operator's SRM process is a key component in its management of cabin operations and demonstrates to the State how the operator manages cabin safety as part of its operations and its SMS. A review of the effectiveness of the operator's SRM process and change management procedures by the State is also important when evaluating proposed changes to operator procedures, training content and delivery methods, as well as the introduction of new pieces of equipment, products and services in the cabin (Chapter 3 refers).

### **2.3.6 Management of safety risks**

The management of safety risks at the national level requires the resolution of safety issues to ensure safety risks are controlled and safety objectives are achieved. As part of its SRM process, the State has access to various safety risk mitigation tools which serve as safety risk controls, such as the promulgation of new regulations related to cabin operations, enforcement action directed at an individual operator, other corrective actions (such as collaborative problem solving, root cause analysis, etc.) to support a positive safety culture at the operator; and the issuance of recommendations stemming from accident and incident investigations (including survival factors) aimed at improving cabin safety.

## **2.4 STATE SAFETY ASSURANCE**

2.4.1 The State safety assurance component of the SSP encompasses:

- a) surveillance obligations; and
- b) State safety performance.

### **2.4.2 Surveillance obligations**

2.4.2.1 The State's surveillance obligations are met through its established surveillance process as part of an effective safety oversight system. As part of its surveillance process, the State should define and plan inspections, audits and monitoring activities related to all cabin operations (i.e. cabin safety-related areas, including passenger handling, cabin safety procedures, cabin crew member training programmes and cabin crew duty and rest policies). The CSI(s) should conduct surveillance of cabin operations on an on-going basis. Priority should be given to areas of greater safety concern using an appropriate safety risk-based approach.

2.4.2.2 Through a safety risk-based approach, the State may adapt the following elements of its surveillance programme:

- a) types of surveillance activities (e.g. audits, inspections);
- b) timeframe or frequency of the activities, including those targeting specific operators;
- c) items to be covered or scope of the activities to address areas of greater safety concern or need; and



- d) related methodology/procedures, job aids and guidance to the CSI on how the activity should be conducted.

*Note.— Guidance on State safety oversight is contained in the Safety Oversight Manual, Part A — The Establishment and Management of a State Safety Oversight System (Doc 9734).*

2.4.2.3 To support a safety risk-based approach, the State can develop an organizational safety risk profile for each national operator. A safety risk profile allows the State to adapt elements of its surveillance programme (2.4.2.2 refers) by assessing the operator's effectiveness in managing its safety risks and then targeting surveillance of high-safety risk areas at that operator. The organizational safety risk profile is not specific to cabin operations; it should encompass the whole of the operator's activities and areas (flight operations, ground handling, aircraft maintenance, training, etc.). Some aspects of cabin operations should be included in the operator's safety risk profile to enable the CSI to address surveillance of cabin operations through a safety risk-based approach. To build the organizational safety risk profile of each operator, the State should analyse factors including, but not limited to, the following points related to cabin operations:

- a) turnover rate of key personnel (including the cabin safety department manager and the cabin crew training manager);
- b) competence and performance of cabin safety department manager;
- c) turnover rate of cabin crew members;
- d) results of previous surveillance activities performed on cabin operations;
- e) timely and effective resolution of previous findings related to cabin operations;
- f) measures of relative level of activity (exposure to safety risk);
- g) indicators related to the operator's size and complexity ( 3.1.2 refers);
- h) maturity of the operator's SRM process and its application to cabin operations (e.g. safety risk assessments conducted on cabin safety issues);
- i) indicators related to cabin crew and the operator's positive safety culture (e.g. surveys, voluntary reporting rates for cabin crew, interviews with randomly selected cabin crew member, safety awareness campaigns, cabin safety bulletins/magazines, observations and document reviews); and
- j) the State's safety performance management related to cabin operations (Chapter 5 refers).

2.4.2.4 The State may also develop sector safety risk profiles. A sector safety risk profile is a picture of the safety risks that affect a specific group of the national aviation industry. A sector may be defined by the type of certificate issued by the State or parts in its operating regulations (e.g. commercial air transport), but it is not limited to them. To develop a sector safety risk profile, the State can use a combination of quantitative and qualitative methods. These enable it to capture aggregate data, as well as key stakeholders' knowledge, experience and perceptions of safety risks within a particular sector. As part of a sector safety risk profile, the State should address cabin operations. The sector safety risk profile enables the State to:

- a) identify sector-specific safety risks and emerging issues specifically related to cabin operations across multiple operators, recognizing that many of these risks will need to be managed by the operators themselves and overseen by the CAA;
- b) promote the continuous improvement of cabin safety within the sector;

- c) reduce uncertainty associated with cabin operations (e.g. unruly passenger occurrences, carry-on baggage-related issued, etc.), through safety risk management;
- d) improve the CAA and the sector's ability to plan and use resources for targeted SRM activities in cabin operations; and
- e) develop safety enhancement initiatives (SEIs), specific to cabin operations, which may be included in the national aviation safety plan (NASP) (2.6 refers) to improve safety across the sector.

### 2.4.3 State safety performance

2.4.3.1 As part of SSP, safety assurance activities provide the State with information on whether its SRM strategies are functioning effectively and the State is on target to achieve its safety objectives via the collective efforts of its aviation industry. The safety assurance component of the SSP serves to monitor and measure the State's safety performance, along with each operator's SPIs and safety performance targets (SPTs). In addition to the planned surveillance activities of operators, the State should:

- a) establish SPIs and SPTs at a national level to monitor effective safety management; and
- b) accept and periodically review the operator's SPIs and SPTs.

2.4.3.2 To enable comprehensive safety assurance activities, the State should develop cabin operations-specific SPIs and SPTs as part of its SSP. The establishment and monitoring of cabin operations-specific SPIs and SPTs allows the State to monitor the effectiveness of safety risk mitigations related to cabin operations. It also enables focused surveillance activities of cabin operations to address specific safety issues.

2.4.3.3 As part of the SMS acceptance, the State should review and accept the SPIs and SPTs proposed by the operator. The operator's SPIs and SPTs should include those related to cabin operations based on its risk profile. Following the initial acceptance, the State should periodically review the operator's SPIs and SPTs as part of its surveillance activities of cabin operations to monitor the operator's safety performance. During the review, the State should assess the performance and effectiveness of each of the operator's SPI and SPT. This may result in the operator adjusting its cabin operations-related SPIs and/or SPTs to support the continuous safety improvement. The State should apply the same periodic review process to its SSP cabin operations-related SPIs and SPTs. Refer to Chapter 5 for additional guidance on SSP and SMS SPIs and SPTs related to cabin operations.

## 2.5 STATE SAFETY PROMOTION

2.5.1 This component of the SSP encompasses both internal and external communication and dissemination of safety information.

2.5.2 Internally, the State should encourage safety awareness of its personnel within the State aviation organizations involved in the SSP (e.g. CAA, accident investigation authority, etc.). Through the safety promotion component of its SSP, the State should foster a positive safety culture amongst its CSIs and other personnel. It should also have processes in place to share and exchange cabin safety information to support an effective SSP. The State should establish a formal process to disseminate information to its CSIs; this is particularly important in a State with several CSIs who oversee multiple operators. In such instances, safety promotion helps the State achieve a level of standardization amongst its CSIs by producing a common understanding of processes, procedures, acceptable means of compliance, etc. Periodic internal communications to CSIs should include, but not be limited to:

- a) changes to SSP documentation, policies and procedures that affect the CSI's tasks;
- b) review and update any of the State's cabin operations-specific SPIs and SPTs;

- c) safety performance information related to national operators, focusing on cabin operations aspects; and
- d) lessons learned from accidents and incidents, particularly as they relate to cabin safety and survival factors.

2.5.3 The State should take a similar approach with the aviation industry: it should promote safety awareness and the sharing and exchange of safety information for the continuous improvement of safety, and to support the development of a positive safety culture within the operator. As part of its SSP, the State should establish a formal process for the external dissemination of safety information related to cabin operations to national operators. It should also establish a means for monitoring the effectiveness of this process.

2.5.4 To promote the awareness of cabin safety issues and the adoption of best practices in cabin operations (including in cabin crew training), the State may organize cabin safety conferences, workshops or webinars/seminars aimed at the industry. Such events enable the sharing of safety information between the State and operators and amongst operators.

2.5.5 The creation of industry communities also serves as safety promotion. Joint industry-regulatory groups specific to cabin operations can serve as a means of sharing safety information, best practices, and assist both States and operators in improving and harmonizing cabin operations aspects, including cabin safety procedures and cabin crew training.

2.5.6 The State can use different digital platforms to disseminate information to a larger audience. This includes the creation of dedicated cabin operations webpages on the CAA's website, to provide technical guidance to operators, as well as useful information to the travelling public (e.g. national regulations on the use of PEDs and a list of approved CRS). Social media can also be used for outreach campaigns and targeted initiatives (e.g. carry-on baggage, unruly passengers, etc).

## 2.6 NATIONAL AVIATION SAFETY PLAN

2.6.1 The Global Aviation Safety Plan (GASP, Doc 10004), available at [www.icao.int/gasp](http://www.icao.int/gasp), sets forth ICAO's safety strategy, which supports the prioritization and continuous improvement of aviation safety. ICAO recommends that each State develop a NASP, in which the strategic direction for the management of aviation safety for a set period is presented. The NASP plan should be developed in line with the GASP goals, targets and high-risk categories of occurrences. For States that have fully implemented an SSP, the NASP demonstrates commitment to the implementation of additional initiatives for the improvement of safety in the State (e.g. strengthening the SSP and achieving the State's safety objectives).

2.6.2 The State should incorporate cabin operations and related activities in its NASP. The plan summarizes organizational challenges and operational safety risks that are of priority to the State and contains specific SEIs to address them. It also contains emerging issues which may need to be further analysed by the State or operators in terms of safety risk. As this is a high-level document typically endorsed by a senior aviation ministerial or government agency representative, such as the Director General of Civil Aviation or Minister of Transport, it is important that cabin safety aspects feature prominently in the NASP to communicate the value and need for activities related to cabin operations and the safety of the flying public. Initiatives in the NASP may include organizational challenges the State plans to address (e.g. the recruitment of CSIs needed to carry out oversight functions in cabin operations) and specific operational safety risks the State and its national operators will work to mitigate (e.g. unruly passengers, lithium battery fires in the cabin, turbulence-related injuries, etc.).

*Note.— Guidance on the NASP is contained in the Manual on the Development of Regional and National Aviation Safety Plans (Doc 10131).*

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## Chapter 3

# CABIN OPERATIONS AND THE SAFETY MANAGEMENT SYSTEM

### 3.1 GENERAL

3.1.1 As per Annex 19, States must require that aircraft operators authorized to conduct international commercial air transport in accordance with Annex 6, Part I, under their authority, implement an SMS.

3.1.2 The SMS must be commensurate with the operator's size and complexity. Size is typically defined by the operator's total fleet size. The operator's complexity is based on several considerations, including, but not limited to:

- a) different types of operations it manages (e.g. passenger, cargo, emergency medical services, etc.);
- b) mixed fleet (number of different aircraft make/model/series and cabin configurations);
- c) number of crew bases, training facilities and stations; and
- d) extent of contracted activities (e.g. cabin crew training, ground handling services, etc.).

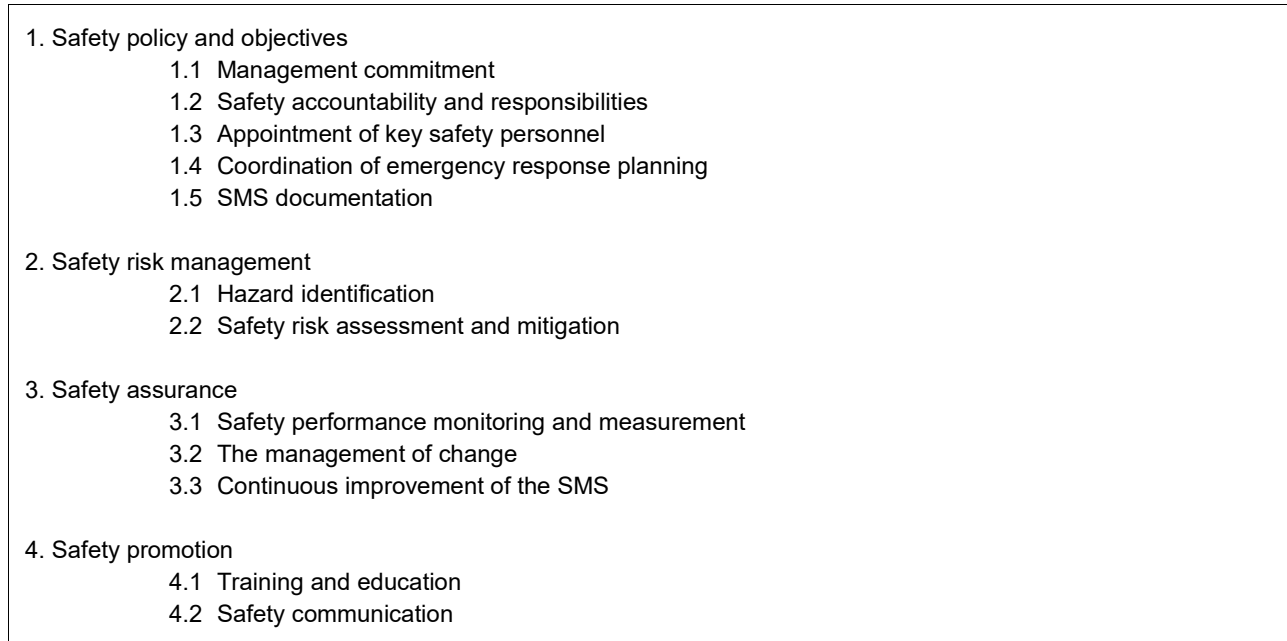
3.1.3 The operator's SMS must be established in accordance with the ICAO SMS framework as presented in Annex 19, which contains four components and twelve elements. These are the minimum requirements for SMS implementation. The ICAO SMS framework is presented in Figure 3-1.

*Note.— Detailed guidance on the ICAO SMS framework is presented in the Safety Management Manual (Doc 9859).*

3.1.4 The operator's SMS must encompass all areas affecting operational safety; this includes cabin operations and related activities. It is important that cabin safety issues be addressed in the SMS to identify and evaluate the impact they can have on improving the operator's overall safety performance.

3.1.5 Individual cabin crew members have a role to play within the operator's SMS and their contributions fit in the bigger picture of safety management at the overarching organizational level. The operator needs to clearly define the role of its cabin crew members within its SMS, and train them accordingly.

3.1.6 The following sections provide a summary of each of the components and elements that form an SMS and describe their relationship with cabin operations, including specific aspects related to cabin operations that the operator should address as part of its SMS.



**Figure 3-1. The ICAO SMS framework**

## **3.2 SAFETY POLICY AND OBJECTIVES**

### **3.2.1 Overview**

The first component of the SMS addresses the organization's safety policy and objectives. As part of this component, the operator must appoint an accountable executive who has ultimate responsibility for the implementation and maintenance of an effective SMS within the organization. The operator must also establish a safety policy, clearly define lines of safety accountability throughout the organization, and appoint key safety personnel. This component also addresses the operator's responsibility to establish and maintain an emergency response plan (ERP) and all SMS documentation requirements. Cabin operations fit in all these points and specific aspects related to it should be considered when the operator is implementing and maintaining its SMS.

### **3.2.2 Management commitment**

3.2.2.1 This element of the first component addresses the need for the operator to define its safety policy and its safety objectives. The safety policy must reflect organizational commitment regarding safety and include the promotion of a positive safety culture.

3.2.2.2 The concept of a positive safety culture should extend to cabin crew members and cabin operations. As part of its documentation, communications and training, the operator should ensure that cabin crew members are trained and knowledgeable about a positive safety culture, its contribution to safety management and how individual cabin crew members' attitudes and behaviours impact safety at the organizational level.

3.2.2.3 The safety policy needs to include a clear statement about the provision of the necessary resources for its implementation. The operator should ensure the provision of resources (e.g. human, financial, technical) to address key areas in cabin operations, including: the appointment of key personnel in cabin safety, cabin crew safety training facilities and devices, safety and emergency equipment, the development and implementation of procedures and documentation needed to support cabin crew in performing safety-related tasks.

3.2.2.4 The operator's safety policy and its objectives should also extend to cabin crew members and cabin operations. This includes how the safety policy reflects organizational commitments regarding safety and how it relates to cabin crew members' tasks as individuals in the organization. As part of training and other safety promotion activities, the operator should define cabin crew members' individual responsibilities, their involvement in relation to the safety policy, and their contribution to a positive safety culture.

3.2.2.5 The operator's safety policy must include safety reporting procedures. These procedures should encompass reporting by cabin crew members. As part of its safety policy, the operator should define, for its cabin crew, how the organization deals with deviations from procedures and cases where disciplinary action would not apply (e.g. errors versus violations). This includes examples of acceptable and unacceptable behaviours, and how these affect the overall success of the SMS within a positive safety culture. The operator's SMS should also include policies and procedures in place for the protection of the information reported by cabin crew members.

3.2.2.6 As noted in 3.2.2.1, the operator needs to define safety objectives as part of its SMS, which form the basis for safety performance monitoring and measurement under its safety assurance component. These objectives need to be communicated throughout the organization, including to all cabin crew members. Refer to 3.4 and Chapter 5 for further guidance.

### **3.2.3 Safety accountability and responsibilities**

3.2.3.1 As part of its SMS, the operator must identify the accountable executive and identify the responsibilities of all members of management, as well as of employees, with respect to the safety performance of the organization. Safety accountability, responsibilities and authorities need to be documented and communicated through the operator.

3.2.3.2 When identifying and documenting responsibilities, as part of the SMS, key roles related to cabin operations should be included. These encompass the following positions under the areas of operations and training:

- a) cabin operations:
  - 1) cabin safety manager (or equivalent);
  - 2) cabin safety officer (work under the safety manager); and
  - 3) cabin investigator (Doc 10062 refers);
- b) cabin safety training (Doc 10002 refers):
  - 1) cabin crew safety training manager;
  - 2) cabin crew instructor;
  - 3) cabin crew evaluator; and
  - 4) cabin crew training course developer.

3.2.3.3 These positions are integral to safe operations, successful training programmes and to develop and maintain the competency of cabin crew members who contribute to the overall management of safety at the operator level. As part of its SMS, the operator should define the levels of management with authority to make decisions regarding safety risk tolerability specific to cabin operations-related issues.

3.2.3.4 The role of individual cabin crew members should also be defined within the operator's SMS. This includes the tasks that are assigned to individual crew members (e.g. reporting on hazards and safety issues), and how these fit into the overall operation of the SMS.

### 3.2.4 Appointment of key safety personnel

3.2.4.1 Under this element of the ICAO SMS framework, the operator needs to appoint a safety manager who is responsible for the implementation and maintenance of the SMS. This role may be held by a single individual and address all areas of operations (flight operations, cabin operations, maintenance, etc.). However, based on the operator's size and complexity, this role may be assigned to several individuals. In such instances, one or more persons may be assigned to manage the cabin operations-related aspects of the SMS, such as the analysis of reports submitted by cabin crew members. In any case, it is important that the person or persons appointed to the role of safety manager include under their responsibilities cabin operations as one of the key areas of the SMS.

3.2.4.2 As part of its SMS, the operator should establish two key groups:

- a) *Safety review board (SRB)*. The SRB is the operator's highest level safety committee. The SRB should include, as members, the accountable executive and senior managers, with the safety manager participating in an advisory capacity. A senior manager responsible for cabin operations should participate in the SRB because it deals with high-level issues related to safety policies, strategy, resource allocation and organizational performance. The participation of a senior manager responsible for cabin operations in the SRB enables this area to be represented and considered when the organization makes decisions on policies, allocates funds, introduces operational changes (e.g. new aircraft types, routes, procedures) and other aspects that may affect cabin safety, cabin crew training, and cabin crew members.
- b) *Safety action group (SAG)*. The SAG is the operator's committee which coordinates the implementation of safety strategies throughout the organization. The SAG should include, as members, managers and frontline personnel. A manager responsible for cabin operations and other personnel, such as cabin crew instructors or cabin crew base managers, should participate in the SAG because it deals with specific operational issues and addresses implementation strategies in support of the SRB.

### 3.2.5 Coordination of emergency response planning

3.2.5.1 The operator's SMS must include the coordination for an ERP to enable it to deal with accidents and incidents. Cabin operations is a key part in an emergency response. In survivable accidents, cabin crew members need to interact with rescue and firefighting (RFF) and other responders at the accident site. The operator should include post-accident actions, including passengers' responses to instructions from personnel such as RFF, cabin crew/RFF coordination, as well as actions needed to increase survivability (e.g. seeking assistance or helping survivors), into its ERP.

3.2.5.2 The operator's ERP should be coordinated with other organizations (externally) and internally (with other key operational personnel). The aerodrome emergency plan should include procedures, responsibilities and duties of participating organizations in order to facilitate the following points during an emergency at the aerodrome:



- a) efficient rescue;
- b) medical care;
- c) firefighting operations; and
- d) aircraft RFF.

3.2.5.3 The operator's ERP should include periodic emergency exercises to verify the effectiveness of the plan to a simulated emergency. Due to the important role of cabin crew in increasing survivability of aircraft occupants during an accident, representatives from cabin operations should be included in the planning, preparation, execution and evaluation of these exercises.

3.2.5.4 The operator should consider linking its critical incident response programme to its ERP to provide support to cabin crew beyond accidents and incidents.

### **3.2.6 SMS documentation**

The operator must develop and maintain an SMS manual. This master document houses the operator's safety policy and objectives; SMS requirements, SMS processes and procedures and accountability, as well as responsibilities and authorities for SMS processes and procedures. The operator may create a stand-alone document for all SMS-related content and include some of the cabin operations-specific content of the SMS manual in the CCOM or other documents (e.g. cabin crew reporting procedures).

## **3.3 SAFETY RISK MANAGEMENT**

### **3.3.1 General**

3.3.1.1 This component of the SMS is composed of two elements: hazard identification and safety risk assessment and mitigation. Both of these elements are key in cabin operations to manage cabin safety and contribute to overall safe operation of aircraft.

3.3.1.2 As part of its SMS, the operator should apply the concept of SRM to all aspects of cabin operations, including:

- a) development and revision of procedures and documentation (e.g. CCOM);
- b) cabin crew training content;
- c) cabin crew performance, including during incidents and accidents;
- d) equipment and furnishings on board aircraft, including new products and retrofits of cabin interiors; and
- e) analysis of the operational environment (e.g. weather, ambient noise and vibration, temperature and lighting) and its impact on operational safety.

### 3.3.2 Identifying hazards related to cabin operations

3.3.2.1 Hazard identification for issues related to cabin operations should be based on a combination of reactive methods (e.g. incident and accident reports) and proactive methods (e.g. safety reporting systems, cabin crew line checks, internal audits).

3.3.2.2 As frontline personnel, cabin crew members play a key role in identifying hazards. These are not limited to cabin-related hazards, but may encompass any aspect of the operation. Therefore, cabin crew should be trained to identify hazards and their consequences. This includes how to identify the different types of hazards that can be encountered (natural hazards, technical hazards, etc.) and a description of the potential consequences of these hazards on operations.

3.3.2.3 The operator should set up reporting systems that enable cabin crew members to report hazards, as well as occurrences related to cabin operations. Cabin crew members should receive training on how to use these systems and submit reports. The two types of reporting systems that should be accessible to cabin crew members are:

- a) mandatory reporting systems; and
- b) voluntary reporting systems.

3.3.2.4 The operator should emphasize to its cabin crew, through procedures and training, the importance of accurate and timely reporting (including reporting style/technique and use of terminology), and legal and/or statutory obligations related to reporting, where applicable. Refer to Chapter 4 for additional guidance on reporting.

### 3.3.3 Safety risk assessment and mitigation

3.3.3.1 As part of its SMS, the operator must develop and maintain a process that ensures analysis, assessment and control of the safety risks associated with identified hazards. This process should extend to hazards identified in cabin operations and by cabin crew members.

3.3.3.2 The operator should have a process in place to collect, analyse and provide feedback to cabin crew members who have reported a hazard or an occurrence. As part of its SRM process, the operator should clearly define how it utilizes safety information reported by cabin crew members to improve the overall level of safety.

3.3.3.3 As part of its SRM process, the operator should establish procedures to conduct safety risk assessments of cabin operations in a consistent and systematic manner. These procedures should include the method used to determine safety risk tolerability (e.g. acceptable, tolerable, intolerable) to guidance on recommended actions based on the results of the assessment (e.g. may be tolerable based on safety risk mitigation). The SRM process should be data-driven to validate the results based on evidence.

3.3.3.4 Safety risk mitigations are actions that often result in changes to operating procedures, equipment or infrastructure. Based on the results of the safety risk assessment, the operator may need to introduce changes to the CCOM, safety and emergency equipment in the cabin, cabin crew safety training, etc. Depending on the area impacted by the safety risk assessment, mitigation strategies should be developed by the responsible entity or person within the operator. For example, if the assessment involves a cabin crew safety training issue, the cabin crew safety training manager should be responsible for developing the safety mitigation strategy. Means to verify safety performance and to validate the effectiveness of mitigation strategies are addressed in 3.4.2.

*Note.— Detailed guidance on safety risk management is presented in the Safety Management Manual (Doc 9859).*

## 3.4 SAFETY ASSURANCE

### 3.4.1 Introduction

The component of SMS dedicated to safety assurance requires the operator to develop and implement the capability to assure its safety processes are functioning effectively and that they support the achievement of the organization's safety objectives. As part of this component, the operator must define safety performance monitoring and measurement. This includes the establishment of safety performance indicators and targets. The operator must also define a process for the management of change and means to promote the continuous improvement of its SMS.

### 3.4.2 Safety performance monitoring and measurement of cabin operations

3.4.2.1 As part of its SMS, the operator needs to develop and maintain the means to verify its safety performance and to validate the effectiveness of the established safety risk controls. Processes to achieve this should extend to cabin operations.

3.4.2.2 As part of its day-to-day safety management activities, the operator should collect hazard reports from cabin crew members and conduct safety risk assessments to understand where its risks lay in terms of cabin operations. These activities are conducted through the SRM process, established as part of the second component of the SMS. Based on the SRM process, the operator should establish safety risk mitigations to address identified hazards and their consequences in a manner that eliminates risks or renders them tolerable. Once those mitigations are implemented, the safety assurance process should be used to monitor the effectiveness of the mitigation strategies by monitoring and measuring safety performance. To do so, the operator must establish SPIs and SPTs as part of its SMS. These enable the organization to assess the level of achievement of its safety objectives. Therefore, to enable its safety assurance activities, the operator should develop cabin operations-specific SPIs and SPTs.

3.4.2.3 The establishment and monitoring of cabin operations-specific SPIs and SPTs enable the operator to complete the SRM process by evaluating the effectiveness of its safety risk mitigations related to cabin operations. Refer to Chapter 5 for additional guidance on operator SPIs and SPTs related to cabin operations.

### 3.4.3 The management of change

3.4.3.1 As part of its SMS, the operator must develop and maintain a process to identify changes that may introduce new hazards into its operations and/or impact existing safety risk mitigation strategies. The management of change process should enable the operator to manage the safety risks that may arise from any changes.

3.4.3.2 Cabin operations is a dynamic field. Some changes are introduced by the operator itself (e.g. new aircraft model enters the fleet, cabin reconfigurations or retrofits, introduction of C-EFBs to replace paper manuals), while others may be introduced by external parties such as passengers (e.g. who bring on board new devices powered by lithium batteries). Changes may also result from variations in national or foreign regulations that impact the operator and its crew members (e.g. new security measures).

3.4.3.3 The management of change process should extend to cabin operations. The operator should consider the impact of a change on aspects such as cabin safety-related procedures, cabin crew training, and cabin crew tasks/workload. Cabin safety and cabin service are closely related aspects of cabin operations. Therefore, the operator should assess the impact on safety of any changes related to service procedures and to the introduction of new service-related products in the cabin.

### **3.4.4 Continuous improvement of the SMS**

3.4.4.1 The operator must monitor and assess its SMS processes to maintain or continuously improve the overall effectiveness of the SMS. As part of the SRM and safety assurance activities, the operator should have processes that include the verification and follow-up of actions related to cabin operations issues.

3.4.4.2 The operator should implement different methods which monitor and assess cabin operations. These may include, but are not limited to:

- a) audits of cabin operations, including the cabin crew safety training programme;
- b) assessments, including cabin crew member line checks;
- c) monitoring cabin safety-related events such as incidents, cabin crew voluntary safety reports, cabin crew errors and voluntary non-compliances;
- d) cabin safety surveys to identify issues and assess the operator's safety culture; and
- e) evaluating cabin operations-related SPIs and SPTs to determine their ongoing relevance and enable trend analysis.

## **3.5 SAFETY PROMOTION**

### **3.5.1 Overview**

The component of the SMS consists of two elements: training and education, and safety communication. These elements are directed at all operator personnel and it is critical that specific training and communications be developed for cabin crew members as key contributors to the SMS and its outputs. This component also aims to foster a positive safety culture among cabin crew members.

### **3.5.2 Training and education**

3.5.2.1 The scope of SMS training must be appropriate to each individual's roles and responsibilities within the operation. Training should follow a building-block approach. The operator must provide SMS training to the following persons:

- a) operational personnel, including all cabin crew members;
- b) managers and supervisors;
- c) senior managers; and
- d) the accountable executive for the SMS.

3.5.2.2 Training for cabin crew members should address their specific involvement in the SMS. The material covered in SMS training should address overarching processes, policies and procedures that cabin crew should be knowledgeable of in order to perform specific tasks within the SMS.

3.5.2.3 The operator may opt for off-the-shelf training, such as an e-learning module on SMS, which would need to be supplemented by documentation on the specifics of the operator's SMS. The operator should document and maintain records of each cabin crew member's SMS training regardless of its size. Through its SMS training, the operator should inform its cabin crew on the timeframe within which they should submit reports internally and/or to the State, as applicable.

*Note.— Detailed guidance on cabin crew SMS training is presented in the Cabin Crew Safety Training Manual (Doc 10002).*

3.5.2.4 Training for persons in management positions related to cabin operations (e.g. cabin safety manager, cabin crew safety training manager) or those in specialized roles (e.g. cabin investigators) should address their specific involvement in the SMS. The material covered in SMS training addresses detailed processes, policies and procedures that they should be knowledgeable of in order to perform specific tasks within the SMS. These include, but are not limited to:

- a) national regulations and organizational processes related to SMS;
- b) conduct of safety risks assessments;
- c) development of safety risk mitigations;
- d) management of reporting systems specific to cabin operations issues;
- e) safety assurance processes (including safety performance monitoring and measurement and the management of change); and
- f) development and implementation of safety communications.

### 3.5.3 Safety communication

3.5.3.1 The operator should maintain a formal means of safety communication for all its cabin crew members. This is an essential foundation for the development and maintenance of its SMS.

3.5.3.2 Safety communications help the operator meet specific objectives, including, but not limited to:

- a) ensuring that all cabin crew are fully aware of the SMS;
- b) conveying safety critical information to cabin crew in a timely manner;
- c) explaining why particular safety actions are taken; and
- d) explaining why safety procedures are introduced or changed.

3.5.3.3 The operator should establish different means of communication for safety-related information and means for cabin crew to provide feedback on that information. These may include, but are not limited to:

- a) safety policies and procedures;
- b) newsletters;
- c) bulletins;

- d) website;
- e) emails; and
- f) C-EFBs.

3.5.3.4 As part of its safety communication, the operator should specify the importance and any subsequent actions required by cabin crew members as a result of a particular communication. This includes actions relevant to specific communications, such as safety bulletin informing cabin crew of a change to a procedure.

### **3.6 CONTRACTED ACTIVITIES**

An operator may subcontract some of its activities to third parties. Some of these activities may relate to cabin operations, such as passenger handling, catering and maintenance (e.g. of safety and emergency equipment, cabin systems, etc.). These activities may have an impact on cabin safety (e.g. faulty ovens in the galley due to maintenance issues may result in an in-flight fire). The operator retains responsibility for ensuring safe operations, even when activities are subcontracted. Some of the third parties may not have an SMS in place. However, the operator should establish a process to exchange safety information with third party contractors. This process should specify cabin operations-related occurrences and issues that the contractor should communicate to the operator, and vice versa, to identify hazards and mitigate safety risks. If the operator has specific processes and procedures to be followed by the contractor, it should carry out periodic audits or inspections to evaluate whether these are being adhered to.

### **3.7 ROLES OF SENIOR MANAGEMENT AND FRONTLINE PERSONNEL**

3.7.1 As part of its SMS, the operator must define safety accountability and responsibilities with respect to the safety performance of the organization (3.2.3 refers).

3.7.2 Senior managers, such as persons responsible for the cabin safety department and cabin crew safety training retain overarching responsibility for cabin operations within the operator. Senior managers should demonstrate commitment to the SMS through leading by example. This includes actively promoting a positive safety culture and actively communicating with cabin crew members to keep them informed about safety-related issues. Senior managers can promote a positive safety culture by motivating cabin crew members and other personnel that support cabin operations (e.g. cabin crew instructors). They may establish a vision for cabin safety and promote positive messages of prioritizing safety and excelling in safety performance within cabin operations to motivate cabin crew members in their daily work. For example, senior managers may publicly reward persons whose behaviour or actions promote a positive safety culture, help identify hazards through reporting, or which result in safety mitigation strategies. The operator may give a merit award to a cabin crew member whose hazard report raised a significant safety concern and led to a change in procedures or equipment; or to a crew who, as a whole, successfully managed an incident which could have otherwise had a negative impact on safety.

3.7.3 Frontline personnel, including frontline managers, such as cabin crew base managers, in-charge cabin crew members, and cabin crew instructors and evaluators play a key role in promoting a positive safety culture, since they are in direct contact with cabin crew members who fly the line. Their behaviours and actions will therefore affect how individual crew members perceive safety and its importance. Like senior managers, frontline managers should lead by example. Since they are in daily contact with cabin crew members (which may not be the case for senior manager, particularly at large operators), frontline managers should integrate safety aspects into daily briefings, promote safety reporting, and communicate actions or changes that have resulted from cabin crew members' involvement in the SMS.

## **3.8 SMS FOR SMALL OPERATORS**

### **3.8.1 Overview**

Different States define “small operators” in multiple ways, for example by number of employees or maximum mass of aircraft models in the fleet. The full SMS implementation for these operators may be perceived as costly and complex, as they may face specific implementation challenges related to the components and elements defined in the ICAO SMS framework. This section highlights challenges that small operators may face specific to the cabin operations aspects of their SMS, and how to address them.

### **3.8.2 Safety policy and objectives**

3.8.2.1 Regardless of its size, the operator should have a safety policy as part of its SMS and safety reporting procedures for its cabin crew members. For a small operator, the reporting procedures may be combined with the safety policy as part of the same document. Likewise, SMS documentation specific to cabin operations may be included in the CCOM as small operators may not develop a standalone SMS manual.

3.8.2.2 A small operator may not have the resources to assign one or more full-time employee to manage its SMS. However, cabin operations should still be covered as part of the operator’s safety management activities. A person who operates as a cabin crew member may be appointed to work part time on the SMS team to focus on cabin operations. If a single SMS manager is appointed and is not experienced in cabin operations, that person may seek the advice of someone inside the organization with subject matter expertise (e.g. the cabin crew training manager or line cabin crew member) to analyse and address cabin operations-related issues and reports as they arise.

### **3.8.3 Safety risk management**

A small operator may not have the resources to implement a sophisticated risk management process. However, a simple process may satisfy the intent of this SMS component. Whereas large operators with several bases and international stations may need tailored software to manage a large volume of reports submitted from different locations by large number of cabin crew members, a small operator may use simple solutions such as off-the-shelf software to create spreadsheets or simple databases to store hazard reports and risk analyses. For a small operator, cabin crew members may communicate their concerns verbally to management. However, it is important to document these in order to log and track them. In some instances, a paper-based log book in the operator’s office or crew room may suffice. Regardless of the method used, the operator should maintain a hazard log listing identified hazards, safety risk assessments and safety risk mitigations. The operator should have paper-based or electronic reporting forms , to enable cabin crew members to report hazards and any safety concern.

### **3.8.4 Safety assurance**

3.8.4.1 The development and monitoring of SPIs and SPTs may be challenging for a small operator. Regardless of size, the operator should monitor some SPIs and SPTs related to cabin operations. If there is not sufficient expertise within the operator to develop these, the organization may look to the State or other operators for guidance. Not all indicators are relevant to all organizations. However, the operator may obtain examples of SPIs that are common in the area of cabin operations and which may apply to it (e.g. when operating same aircraft types or routes than other operators). The operator may create a simple document to present the SPIs and SPTs in tabular form, tracking them by quarter. Refer to Chapter 5 for further guidance.

3.8.4.2 A small operator may find it difficult to implement methods to monitor and assess cabin operations, as part of the continuous improvement of its SMS (3.4.4.2 refers). For example, the operator may not have the resources to establish an independent internal auditing process to monitor its cabin operations. In such instances, qualified employees may be called upon to work part time as auditors. They should not limit their observations to verifying compliance with operator procedures, but also assess the effectiveness of established processes to identify potential areas for improvement in cabin operations.

### **3.8.5 Safety promotion**

3.8.5.1 Training and education are essential elements of an SMS regardless of the size of the operator. The appointed SMS manager of the small operator may deliver training to all other employees, including cabin crew members. The operator may opt for off-the-shelf training, such as an e-learning module on SMS, which would need to be supplemented by documentation on the specifics of the operator's SMS. Regardless of the delivery method, SMS training for cabin crew members should address the points noted in 3.5.2. Regardless of its size, the operator should document and maintain records of each cabin crew member's SMS training.

3.8.5.2 A small operator may not invest in large communication campaigns or publications such as safety magazines for its cabin crew members. However, the safety communication element of the SMS may be covered by simple actions, such as posting bulletins in a board in the crew room, discussing issues during crew briefings, and holding face-to-face staff meetings for cabin crew to voice concerns.

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## Chapter 4

# REPORTING

### 4.1 SAFETY REPORTING SYSTEMS

4.1.1 The State must establish a mandatory safety reporting system that includes the reporting of occurrences and/or safety issues, as well as a voluntary safety reporting system to collect safety data and safety information not captured by the mandatory safety reporting system (3.3.2 refers).

4.1.2 From a cabin operations perspective, mandatory safety reporting systems and occurrences that the operator must report to the State may include, but are not limited to:

- a) evacuation of crew and/or passengers;
- b) use of fire extinguishing or suppression agents;
- c) fire, smoke and fume events;
- d) events requiring the use of emergency systems or equipment;
- e) anticipated emergency landing;
- f) significant safety and security related events, including for example: bomb threats, hijack or similar events, security breaches, unruly passengers, stowaways and severe turbulence;
- g) cabin crew incapacitation that render them unable to perform critical safety duties;
- h) spillage, leakage or any event related to the transport of dangerous goods;
- i) carriage of dangerous goods in a manner that does not conform with the provisions of Annex 18 — *The Safe Transport of Dangerous Goods by Air* and the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284); and
- j) any other occurrence that endangers or may endanger the operation of an aircraft, or which causes or may cause a danger to persons or property.

4.1.3 In addition to its mandatory safety reporting system, the operator should also give its cabin crew members access to a confidential, voluntary safety reporting system as a means of identifying hazards related to latent conditions such as inadequate procedures or regulations, human error, etc. Voluntary reports go beyond typical occurrence reporting and enable the State or operator to gather important safety information and build trust with the organizations or operational personnel who are reporting the information. Both the State and operator(s) should consider the means to promote and encourage voluntary reporting for the progress to a positive safety culture.

4.1.4 The operator's safety reporting systems should identify and capture safety issues, hazards and precursors related to cabin operations and related occurrences. SMS training for cabin crew members should address hazard identification, effective communication and quality of reporting as part of the operator's safety risk management.

*Note.— Detailed guidance on cabin crew SMS training is presented in the Cabin Crew Safety Training Manual (Doc 10002).*

## 4.2 REASONS FOR WRITING A REPORT

A report is a written account of something that a person has observed, heard, done or investigated. Reasons that motivate cabin crew members to write a report include, but are not limited to:

- a) *Aid in decision-making.* Cabin crew members may observe situations in which they want to propose changes or improvements. Data derived from safety reporting systems may identify hazards and trends and support the decision-making process;
- b) *Promote change.* As frontline personnel, cabin crew members are exposed to situations or observe hazards which may not be known by the operator's management. Reporting helps management understand the challenges that cabin crew face; reports may lead to changes in the training programme, policies, procedures, equipment or allocation of resources;
- c) *Identify organizational challenges.* Cabin crew members may provide an accurate representation of events, as they see them, identify procedural challenges and provide information for improvement and to explain their level of performance within an occurrence. In certain cases, safety reporting systems offer crew members who report safety concerns with a level of protection from disciplinary action (3.2.2.5 refers); and
- d) *Identify challenges in the system as a whole.* The operator may work with different organizations on a daily basis: catering, cleaning services, maintenance, etc. Cabin crew members may identify hazards, errors, deviations from procedures or minor violations from contracted personnel which have an impact on cabin operations and overall safety (e.g. defective catering equipment).

## 4.3 ISSUES RELATED TO REPORTING

4.3.1 Communication is one of the competencies in the ICAO Competency Framework for Cabin Crew Members, presented in Doc 10002. Writing skills are a key part of effective communication. The quality of a report (information it contains, level of details, terminology used, etc.) will influence if and how the operator may use it within its SMS. Common issues in report writing include:

- a) the report does not address subject matter or the problem being reported; it may contain too many details related to other aspects of the occurrence without focusing on the facts needed to comprehend the situation (e.g. a report on an aircraft door malfunction which describes at length the details of the flight);
- b) the report is not detailed enough to sufficiently describe the occurrence or align with a standard taxonomy; the content does not focus on the facts – it may contain opinions, describe emotions of the person writing the report (e.g. frustration at the situation) or add details which are irrelevant to the occurrence while missing factual information needed to comprehend the issue being reported;
- c) the information contained in the report is unclear or ambiguous; this may create confusion for the person reading the report and raises unanswered questions; and
- d) there may be a reluctance to report due to lack of trust or fear of retribution.

4.3.2 SMS training for cabin crew members should address the importance of accurate and timely reporting (including reporting style/technique and use of terminology) and legal and/or statutory obligations related to reporting, where applicable. Detailed, comprehensive information provided by cabin crew members regarding a hazard or an occurrence enables other operator personnel to obtain the best results when trying to resolve a safety issue (e.g. when aircraft maintenance technicians are troubleshooting a malfunction reported in the cabin).

4.3.3 To promote reporting amongst cabin crew members, the State and the operator should consider the following points regarding the safety reporting system:

- a) easy and quick access thereto;
- b) user friendly;
- c) contains a drop-down menu;
- d) provides an offline option;
- e) allows for a feedback system;
- f) contains a user manual;
- g) prompts user for additional details;
- h) contains images and descriptions; and
- i) provides a means to include supporting evidence (video recording, photographs, documents, etc.).

## 4.4 WRITING A MEANINGFUL REPORT

### 4.4.1 Overview

4.4.1.1 The purpose of a report is to help the cabin investigator to identify cause, contributing factors and appropriate actions to prevent a recurrence. The cabin investigator relies on the accurate account of the cabin crew member(s) who witnessed the occurrence, the actions taken, and the impact of the actions on the outcome. Reporting processes and procedures should be as simple as possible to encourage reporting of all occurrences. Multiple reports may be received for the same occurrence if witnessed or acted upon by multiple crew members. Training should reinforce the need for accuracy and completeness and report writing memory aids may be useful in ensuring the accuracy of reports (Appendix A to this chapter refers).

4.4.1.2 Reports that relate to minor events should be encouraged as part of the overall safety reporting system so that the operator can monitor trends over time and take appropriate action when a predefined threshold of similar reports is received. Minor events might not pose an immediate safety risk and are often mitigated by cabin crew, but might indicate a systemic failure to be addressed. These events might include, but are not limited to:

- a) inappropriate assignment of emergency exit seats;
- b) excessive carry-on baggage; and
- c) failures in catering equipment and processes;

These reports may be simple in nature and only require short, specific information as determined by the operator. More serious events, including those required to be reported to the State (4.1.2 refers) will require content that is more comprehensive.

4.4.1.3 Reports may be handwritten or completed using a C-EFB software application. With the use of an electronic reporting process, the operator can manage the content of the report using dependent fields and mandatory settings to ensure cabin crew members provide all relevant information.

*Note.— Guidance on the use of C-EFBs is contained in the Manual on the Implementation and Use of Cabin Electronic Flight Bags (Doc 10111).*

4.4.1.4 Before writing a report, the cabin crew member should gather the information required. This should commence as soon as the cabin crew member realizes that something needs to be reported. In order not to omit any required details when writing the report, the cabin crew member should note who is involved, what happened, why, when, where, and how as these will guide them in the amount of details that are reported.

4.4.1.5 Meaningful reports should contain information that is:

- a) factual: avoids emotive language and assumptions, remains objective and unbiased;
- b) clear and concise: easy to read and interpret, using known terminology;
- c) constructive: offers solutions and serves a useful purpose;
- d) courteous: respectful, considerate, business-like, professional; and
- e) complete, structured and ordered: contains all relevant information.

#### **4.4.2 Factual**

A report should state the facts of the occurrence rather than present assumptions and subjective opinions. The cabin crew member should remain neutral and focus on specifics only, especially when reporting on the actions of others. To ensure objectivity, the cabin crew member should minimize the use of adverbs and adjectives as these could indicate a personal opinion, not a fact (e.g. stating in the report that the ground crew were “ineffective” in managing the boarding process). The report should not include beliefs or biases from the cabin crew member. For example, when a cabin crew member reports an occurrence that involved interpersonal conflicts, the report should focus on the event being reported, not past conflicts with a particular person.

#### **4.4.3 Clear and concise**

4.4.3.1 The cabin crew member should provide sufficient details to accurately describe the occurrence or hazard being reported (e.g. time, seat number, location in the cabin, phase of flight, etc.). Details provided should not distract the reader from what the cabin crew member is trying to report. When assessing the relevance of certain pieces of information, the cabin crew member should consider the following, in order to prioritize information included in the report:

- a) use familiar words, but avoid jargon;
- b) use short words, if possible;
- c) use technical and operator terminology, but avoid using acronyms;

- d) use specific language; and
- e) reduce word count.

4.4.3.2 Table 4-1 presents two examples of reporting information related to an in-flight fire: one offering a vague description of the information and another that is more specific. Images (or visuals) and associated descriptions may be used in order to clarify aspects of the occurrence and improve the accuracy of the report.

**Table 4-1. Accuracy in reporting an in-flight fire**

<b>Information</b>	<b>Vague</b>	<b>Specific</b>
<b>Location</b>	Back of the cabin	Aft galley
<b>Intensity</b>	Not too bad	Orange flames of approximately 10 cm observed
<b>Source</b>	Don't know	Unknown, oven in aft galley suspected
<b>Action</b>	Everything we could do	The cabin crew number stationed at R-1 fought the fire

#### 4.4.4 Constructive

The cabin crew member should avoid opinions, emotions and criticism and offer suggestions or potential solutions and recommendations in order to help prevent a recurrence of the event. A report that includes positive aspects and details the outcome of actions taken may be more useful in identifying improvements to processes and procedures if required.

#### 4.4.5 Courteous

A report should be written in a respectful, business-like and professional manner to avoid misinterpretation by the reader. The cabin crew member should consider that the report may be read by internal and external stakeholders (e.g. when the report is also submitted to the State).

#### 4.4.6 Complete, structured and ordered

A report should be constructed in such a manner as to be easily understood by the reader. It should follow a logical flow, highlighting relevant facts and actions in a sequential order. To determine completeness in report writing, the cabin crew member should ensure that the report answers, at minimum, the following questions:

- a) Who? Who was involved, present and/or witnessed the event?
- b) What? What happened and what actions were taken?
- c) Why? Why did the event occur, what were the potential causes or contributing factors?

- d) When? When did the event occur, what time or what phase of flight?
- e) Where? Where, specifically, did the event occur?

## 4.5 POSITIVE SAFETY CULTURE AND REPORTING

4.5.1 A positive safety culture plays a key role in the volume and quality of reporting from cabin crew members. The operator should promote a positive culture as part of its SMS. It should also implement a safety policy which contains safety reporting procedures for its operational personnel, including cabin crew members (3.2 refers).

4.5.2 As part of the acceptance of the operator's SMS, and on-going surveillance activities, the State should:

- a) confirm that the safety policy meets the national requirements;
- b) check how the operator encourages a positive safety culture; and
- c) assess how the positive safety culture and the reports generated by cabin crew members impact the overall effectiveness of the SMS, including the number of reports received by the operator from its cabin crew, follow-up actions and mitigations implemented as a result of the reporting.

4.5.3 To promote reporting, the State should look for evidence that the safety policy is being applied as described following a reported occurrence (i.e. in a fair and consistent manner). This can indicate that the policy is documented but may not be implemented as described (e.g. was a cabin crew member terminated for reporting a safety concern?). Evidence may be gathered by a combination of actions: sampling the operator's database and documentation, and interviews with random cabin crew members and other personnel to ascertain their knowledge and feedback regarding the safety policy and culture, and to ascertain their comfort level with honest reporting. As part of a positive safety culture, cabin crew members should feel comfortable reporting their own errors, not just occurrences involving others. In addition, the State can assess the actions resulting from internal investigations to determine if they address systemic, organizational issues or focus primarily on disciplining individual cabin crew members.

4.5.4 A review of the operator's data is also a valuable source of information for the State to assess the operator's positive safety culture and the effectiveness of reporting. This includes reporting rates by cabin crew members and the monitoring of those rates by the operator. The absence of reports does not equate to an absence of occurrences or safety issues but may indicate issues related to cabin crew reporting. An increase in reports, particularly as safety reporting systems are implemented, does not necessarily equate with an increase in the number of actual occurrences or safety issues; it may indicate the positive safety culture and willingness by cabin crew members to report more than before.

## 4.6 SAMPLE REPORT TEMPLATES

4.6.1 Several templates are presented in different ICAO documents which may be useful for States and individual operators when developing a safety reporting system:

- a) unruly passengers and reporting of incidents (*Aviation Security Manual* (Doc 8973 — Restricted));
- b) occurrence reporting forms for investigations (*Manual on the Investigation of Cabin Safety Aspects in Accidents and Incidents* (Doc 10062));

- c) standardized smoke and fumes reporting form (*Guidelines on Education, Training and Reporting Practices related to Fume Events* (Cir 344)); and
- d) trafficking in persons on board reporting form (*Guidelines for Reporting Trafficking in Persons by Flight and Cabin Crew* (Cir 357)).

#### **4.7 ADDITIONAL GUIDANCE**

The appendices to this chapter provide additional guidance, as follows:

- a) Appendix A, memory aid for effective report writing;
  - b) Appendix B, sample cabin safety report; and
  - c) Appendix C, fields suggested in electronic cabin safety report.
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## Appendix A to Chapter 4

### MEMORY AID FOR EFFECTIVE REPORT WRITING

The operator can train cabin crew members on the use of the memory aid “POISE” to promote effective report writing. Cabin crew reports should be written with POISE. The acronym POISE stands for the following:

- **P**olite
- **O**rdered
- **I**mprovement
- **S**hort
- **E**vent

Table 4-A-1 provides additional information on the use of the memory aid.

**Table 4-A-1. Memory aid “POISE”**

<b>Polite</b>	Courteous	Use professional style and language. Do not apportion blame.
<b>Ordered</b>	Complete structured and ordered	Tell the sequence of events in correct order.
<b>Improvement</b>	Constructive	Provide suggestions for preventing it from happening again.
<b>Short</b>	Clear and concise	Keep it simple. Provide sufficient information but avoid: <ul style="list-style-type: none"><li>• opinions;</li><li>• emotions; and</li><li>• jargon.</li></ul>
<b>Event</b>	Facts	What happened? When? Where? Who was involved? What were the actions taken and the results thereof?



## Appendix B to Chapter 4

### SAMPLE CABIN SAFETY REPORT

<b>Cabin Safety Report (CSR)</b>				
<b>Reporter name</b>	[Name/employee number]			
<b>Local date of departure</b>	<b>Flight number</b>	<b>Route: from/to</b>	<b>Phase of flight</b>	<b>Time of incident</b>
/ /		/		:
<b>Title of report</b> — <i>The subject of the issue/incident/accident/concern.</i>				
<b>Occurrence details</b> — <i>Describe what happened.</i>				
<b>Actions taken</b> — <i>What did you do?</i>				
<b>What was the result?</b> — <i>Was the situation contained?</i>				
<b>Were the procedures, equipment and training effective?</b> — <i>What could you suggest for improvement?</i>				
<b>Other relevant information</b> — <i>Include details of other crew members involved, witnesses, potential causes or contributing factors, etc.</i>				



## Appendix C to Chapter 4

### FIELDS SUGGESTED IN ELECTRONIC CABIN SAFETY REPORTS

The operator may choose to use electronic cabin safety reports or applications (app) instead of paper-based ones. These should facilitate on-board reporting but may also allow for post-flight reporting that supports a positive safety culture. Electronic cabin safety reports and apps should interface with other systems (e.g. C-EFB) and data, as far as practicable, in order to minimize cabin crew members' manual input. Using "look up" fields and dependencies to auto-populate other fields will help encourage effective reporting. Additional guidance on C-EFBs is contained in the *Manual on the Implementation and Use of Cabin Electronic Flight Bags* (Doc 10111). Table 4-C-1 presents suggested fields the operator should incorporate in an electronic cabin safety report.

**Table 4-C-1. Fields suggested in an electronic cabin safety report**

<i>Section</i>	<i>Name</i>	<i>Type</i>	<i>Description</i>
Reporter	Name of reporter	Short text	Reporter's name
	Employee number	Alphanumeric	Reporter's employee number
	Working position	Short text	Reporter's on-board working position
Type	Type of report	Look up	To help categorize reports within database – e.g. air safety report, cabin safety report, occupational health report, security report, etc.
Title	Title of report	Short text	One line title/summary of incident
Details	Local date of departure/occurrence	Date/Time	
	Flight number	Alphanumeric	Look up connected to operator's network
	Aircraft type (make/model/series)	Lookup	Look up connected to operator's fleet description
	Aircraft registration	Lookup	Look up connected to operator's fleet description
	Time of incident	Date/Time	
	Route/Sector	Lookup	Look up connected to flight number selection
	Phase of flight	Lookup	Taxi, take-off, climb, cruise, etc.
Description	Facts	Long text	
Actions taken	Crew actions	Long text	
	Outcome	Long text	

Improvement	Procedures effective	Yes/No/NA	
	Suggestions	Long text	Visible if NO selected
	Equipment effective	Yes/No/NA	
	Suggestions	Long text	Visible if NO selected
	Training effective	Yes/No/NA	
	Suggestions	Long text	Visible if NO selected
Other relevant information	Other information	Long text	
	Attachments	Attach documents, pictures, scans, etc.	

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## Chapter 5

# SAFETY PERFORMANCE MANAGEMENT

### 5.1 MONITORING AND MEASURING SAFETY PERFORMANCE

5.1.1 Safety performance is a State or a service provider's safety achievement as defined by its safety performance targets and safety performance indicators. Each SSP and SMS must include safety objectives. A safety objective is a brief, high-level statement of safety achievement or desired outcome to be accomplished by the SSP or SMS. The State and the operator should establish their own safety objectives to provide strategic direction for their relative safety performance management processes. These objectives also enable the decision-making process for safety management (including prioritization of safety issues and allocation of resources to address them). As part of the safety assurance component of its SMS, the operator must develop and maintain the means to monitor and measure the safety performance of the organization and validate the effectiveness of safety risk controls. Likewise, as part of its SSP, the State should establish processes to ensure safety risks are controlled, and safety objectives are achieved. These processes should demonstrate the effectiveness of safety management activities. In addition to monitoring and measuring safety performance at the national level, the State must also review the safety performance of individual operators and other service providers on a periodic basis. This is typically accomplished through safety assurance activities. These activities enable the State and the operator to verify that their safety processes are functioning effectively and that they are on target to achieve their respective safety objectives.

5.1.2 Safety performance is monitored and measured through the SPIs and SPTs, established as part of the SSP and the SMS. SPIs and SPTs support the overarching safety objectives established by the State or the operator.

5.1.3 An SPI is a data-based parameter used for monitoring and assessing safety performance. SPIs include safety performance measurement exclusively; they do not relate to commercial goals, revenue generation or customer satisfaction. SPIs are expressed in numerical terms.

5.1.4 An SPT is a State or a service provider's planned or intended target for a specific SPI over a given period that aligns with the safety objectives. SPTs define short-term and medium-term safety performance management desired achievements. They act as milestones providing confidence that the organization is on track to achieving its safety objectives and provide a measurable way of verifying the effectiveness of safety performance management activities. SPTs include safety performance measurement exclusively and are expressed in numerical terms.

### 5.2 SAFETY PERFORMANCE INDICATORS RELATED TO CABIN OPERATIONS

5.2.1 The State should monitor and assess the effectiveness of its SSP to maintain or continuously improve the overall level of safety performance at the national level. When developing SPIs to measure safety performance at the national level, the State needs to analyse data gathered from its existing sources of information and determine what its top safety risks are. This includes aggregate data from industry (e.g. cabin operations-related information from multiple national operators). SPIs at the national level should be specific to the operational areas such as flight operations, cabin operations, dispatch, aircraft maintenance, ground handling, etc.

5.2.2 When selecting the proper SPIs, the operator needs to analyse data gathered from its existing sources of information and identify its top safety risks. The operator's main safety issues may be associated with particular airports it services or routes it operates (e.g. turbulence related injuries linked to specific sectors). They may also be linked to other areas of operations that interface with cabin operations or are related to the contracting of certain activities (e.g. issues at a certain station where passengers frequently board dangerous goods in their carry-on baggage). For operators involved in commercial air transport, SPIs should cover all the related operational areas, such as flight operations, cabin operations, dispatch, aircraft maintenance, ground handling, etc. SPIs should address each specific operational area that could impact safety.

### 5.3 MEASURING PROCESSES VERSUS OUTCOMES

5.3.1 Safety performance management goes beyond measuring accident rates and the level of regulatory compliance for the operator. It is important to differentiate between measuring safety performance based on processes (i.e. activities) versus the outcome of a serious event, such as a fatal accident. Historically, some of the biggest changes to aviation have come out of accidents, generally those involving fatalities, which obtain the most public attention. However, hazards along with their associated safety risks are not exclusively identified through investigation of low probability or high severity occurrences (e.g. accidents). The safety data collected from lower consequence occurrences, safety reporting systems or cabin operations processes is also crucial for safety performance monitoring and measurement.

5.3.2 When considering the measurement of processes versus outcomes, the following points should be considered:

- a) accidents are very infrequent;
- b) focus on potential precursors to accidents and potential contributing factors to undesired situations and occurrences;
- c) areas or issues of safety concern should be targeted (based on data); and
- d) SPIs should be monitored based on existing data sources.

5.3.3 Since accidents are very infrequent, not enough data exists for proactive safety management. However, the State and the operator can focus on accident prevention by applying precursors and latent conditions to the types of accidents they wish to avoid. To do so, they need to target potential contributing factors to accidents or processes that could impact safety. The State or the operator can gather and analyse data related to hazards and potential contributing factors since a large volume of these exist. Based on this analysis, safety issues in cabin operations may be identified.

5.3.4 At the operator level, senior management should agree on the selection of SPIs, which in turn support the achievement of the organization's safety objectives. As part of its safety assurance, the operator should monitor SPIs based on existing data sources such as cabin crew reports, line checks, training performance data, etc. The same should be accomplished by the State as part of its SSP.

5.3.5 Frequently gathered data (such as voluntary crew reports or inspections) increases the volume of information available to States and operators, allowing them to produce meaningful analysis and trends, versus the minimal data available on accidents. Monitoring SPIs and analysing those that underperform lead senior management to address safety issues in certain key areas, such as:

- a) deficiencies in the design and implementation of the cabin crew training programme;
- b) amendments needed to existing operator procedures in the CCOM;



- c) problems related to safety and emergency equipment/systems in the cabin;
- d) issues and interfaces related to other stakeholders that need to be involved in the corrective actions (catering, passenger handling agents, maintenance, etc.); and
- e) organizational issues that undermine safety or encourage undesired behaviours (e.g. pressure to maintain on-time departures and quick turnarounds).

5.3.6 For example, if there is defective equipment on board an aircraft in the operator's fleet, such as a malfunctioning oven, there is a risk that it may produce a negative outcome: an in-flight fire, causing damage or impairing crew members, affecting their capability to carry out safety-related tasks. Process monitoring (e.g. routine inspections to identify defective equipment on board) provides an indication of potential safety risks (e.g. smoke, cabin damage, crew incapacitation (potentially associated with the defective oven)). It enables the operator to implement a safety risk mitigation (e.g. inspection of all ovens across its fleet) rather than exclusively measuring the outcome of a high severity or low probability risk occurrence after it takes place (e.g. number of actual in-flight fires).

## 5.4 HOW TO DEFINE SAFETY PERFORMANCE INDICATORS

### 5.4.1 Overview

An SPI must provide a clear link to the achievement of a safety objective defined as part of the SSP or SMS. It may relate to performing tasks associated with a desired outcome or avoiding a safety risk or undesired outcome. The following criteria should be considered when defining an SPI:

- a) simple: measuring a clearly defined variable that stakeholders understand;
- b) specific: including a single, precise metric;
- c) measurable: the metric included in the SPI should be measured;
- d) relevant to the State, the operator's safety objective(s) or the outcome/activity being measured; and
- e) timely: defined within a specific timeframe.

### 5.4.2 Description of the safety performance indicator

Once the SPI is selected, a brief yet clear explanation of the indicator should be developed. This includes the related metric, data source, data provider and a description of what it will measure (e.g. the number of inadvertent slide deployments, percentage of medical emergencies resulting in a diversion, average of unruly passenger events or rate of turbulence-related injuries). The SPI should provide direction to the organization's activities consistent with the safety policy and a specific safety objective related to of the SSP or SMS.

### 5.4.3 Specifications of the safety performance indicator

5.4.3.1 The SPI should be linked to a specific area of operations (e.g. cabin operations, aircraft maintenance, ground handling, etc.) as well as a specific project or programme (e.g. a project to refurbish aircraft cabins or a cabin crew safety training programme).

5.4.3.2 The SPI may relate to an activity. This type of indicator is considered predictive or leading; it measures processes and inputs that are being implemented to improve or maintain safety (e.g. audit or inspection results). Alternatively, the SPI may relate to an outcome, such as past occurrences and the conditions within a system after they took place (e.g. incidents, damage and injuries). This type of SPI is considered reactive or lagging; it measures safety outcomes and the effectiveness of safety risk mitigations.

5.4.3.3 A rationale should be provided for the SPI. This is an explanation of how the indicator connects to the identified safety objective and the measurement and monitoring of the SPI support. Its limitations should also be clarified; an explanation of the scope or the extent of the variable or entity that the SPI measures (e.g. accident rates may be limited to a specific aircraft category or compliance may apply to a certain set of regulations).

5.4.3.4 If applicable, a definition should be provided for any technical, specific, project or area-related terminology used in naming or defining the SPI that may not be widely known or understood (e.g. what constitutes a slide deployment, a fume event versus smoke on board or the different levels of unruly passengers). Any specific or technical formulas for the calculation of the SPI value should be provided, if applicable.

#### **5.4.4 Data and metrics for safety performance indicators**

5.4.4.1 The following aspects should be identified about the data needed for the SPI:

- a) data set(s): the data that is needed for measuring the SPI;
- b) data availability: the listed datasets may have different levels of availability, varying from “unavailable data” to “fully available data” (e.g. the State may not have direct access to the operator’s cabin crew reports on a specific issue);
- c) data disaggregation level: the lowest level into which the data can be broken down to a more detailed level (e.g. the data may be available on a global, regional or national level; in that case, the disaggregation level is the national data);
- d) data provider: the provider of the data or the source where the data comes from (e.g. the operator’s cabin crew training department; the CAA’ inspection branch; the aircraft manufacturer).

5.4.4.2 The appendix to this chapter presents a sample SPI form that may be used to define the indicators related to cabin operations.

### **5.5 SELECTING THE APPROPRIATE SAFETY PERFORMANCE INDICATOR**

5.5.1 The State should ensure that the SPIs selected by the operator are evidence-based, closely related to its safety objectives and that there is a means to measure them consistently through existing processes (inspections, mandatory occurrence reports, etc.).

5.5.2 Regardless of the area or safety issue monitored, the operator should demonstrate to the State (through factual evidence like the number of cases recorded) why particular SPIs were chosen and that they can be measured consistently through existing processes (e.g. via a crew reporting system, flight data monitoring, line checks, etc.). The State should ensure that the safety objectives, SPIs and SPTs established by the operator are appropriate and acceptable. The operator should also align its safety objectives, SPIs and SPTs with the State’s safety objectives.

5.5.3 When evaluating the SPIs established by the operator, the State should ensure a distinction between commercial indicators and SPIs. For example, the operator may measure on-time performance. The monitoring of an on-time departure is a commercial indicator. It aims at ensuring customer satisfaction and keeping operational costs down. A delayed aircraft may result in costs relating to its occupation of the gate, the flight losing its slot, passengers misconnecting and the ensuing costs of accommodations, meals, and other incidentals. An operator that aggressively pushes for on-time departures can create operational pressure amongst its crews and this operational pressure is a safety issue. The operator might uncover this safety issue through symptoms such as crews violating procedures to prevent delays, skipping items or entire tasks due to a rushed departure, omitting the passenger safety briefings to shorten taxi time, etc. Therefore, although there is a connection between this commercial indicator and operational safety, the commercial indicator does not constitute in itself an acceptable SPI but rather creates an issue (i.e. operational pressure) to be monitored.

5.5.4 The State should consider the following points when assessing the selection of SPIs by the operator:

- a) *Frequency of occurrences.* The measurement of safety performance is a continuous process. If an SPI only looks at infrequent occurrences or those every unlikely to happen, it might not be appropriate;
- b) *Relevance to everyday activities.* SPIs serve to monitor and measure selected operational activities necessary for the provision of services (e.g. the safe transport of passengers by the operator). Whatever is being monitored has to relate to the everyday activities that are a part of the operator's business;
- c) *The correlation between safety objectives, SPTs and SPIs.* There should be a correlation between safety objectives (defined as part of the SMS), SPTs and SPIs. For example, the operator has an overarching objective to reduce crew injuries. One of its SPIs is the number of turbulence-related injuries to its cabin crew members per hours flown. It has also established an SPT to reduce its cabin crew turbulence-related injuries by 33 per cent in two years; and
- d) *Data driven.* The SPIs that are chosen are based on data analysis. Once the operator has captured the different safety issues, it can prioritize the top ones that it will address based on a safety risk assessment.

5.5.5 The operator should be able to answer the following questions:

- a) *Why measure this safety issue?* This should be justified by data analysis and a safety risk assessment.
- b) *Can the safety issue be measured and monitored? Does the operator have the capability in terms of tools, personnel and funds to monitor the SPI?* For example, an operator flying aging aircraft may not be able to obtain the same level of information regarding parameters from flight data monitoring or aircraft systems than one with newer generations (e.g. if the seatbelt sign was illuminated during turbulence or the arming status of doors in the event of an inadvertent slide deployment).
- c) *By what means can the data be captured?* Examples include voluntary cabin crew reporting, line checks or audits of the cabin crew training programme.

5.5.6 At the State level, guidance should exist to assist the CSI in assessing the adequacy and applicability of the SPIs selected by the operator, including the review of the process used by the operator to develop the SPIs. In addition to the initial selection of SPIs related to cabin operations, the operator should have a process in place that periodically reviews the SPIs (and related SPTs) and ensure they remain relevant. The State should monitor the revision process and assess any changes to the SPIs before the decision of acceptance.

5.5.7 The State should apply the same concepts presented in this section when developing SPIs and SPTs related to cabin operations as part of its SSP. Information necessary to measure the SSP SPIs may come from individual operators gathered as part of surveillance activities on each operator's SMS.

*Note.— Additional guidance on the selection of SPIs is contained in the Safety Management Manual (Doc 9859).*

## **5.6 SAMPLE STATE SAFETY PROGRAMME SAFETY PERFORMANCE INDICATORS RELATED TO CABIN OPERATIONS**

5.6.1 Below are examples of outcomes that the State may consider as the basis for its SSP SPIs to measure safety performance in the area of cabin operations at the national level. Several of these SPIs reflect "negative" outcomes or occurrences that the State wishes to avoid:

- a) aircraft evacuation;
- b) fire, smoke and fume events on board;
- c) anticipated emergency landing;
- d) unruly passenger occurrences;
- e) severe turbulence encounters;
- f) cabin crew incapacitation that renders them unable to perform critical safety duties;
- g) occurrences involving spillage, leakage or any event related to the transport of dangerous goods;
- h) regulatory non-compliance;
- i) training data (e.g. rate of remedial training);
- j) operations with reduced number of cabin crew members; and
- k) audit results (e.g. the safety risk level of findings and repeated findings).

5.6.2 The State should also include SPIs that monitor inputs and processes, with data collected from safety oversight activities and other surveillance activities such as:

- a) developing regulations specific to cabin safety;
- b) producing voluntary occurrence reports related to cabin operations;
- c) producing mandatory occurrence reports related to cabin operations;
- d) surveillance activities performed in a given timeframe; and
- e) improving CSI competencies in a given timeframe on a particular subject (e.g. conducting safety risk assessments).

## 5.7 SAMPLE SAFETY MANAGEMENT SYSTEM SAFETY PERFORMANCE INDICATORS RELATED TO CABIN OPERATIONS

5.7.1 Below are examples of outcomes that the operator may consider as the basis for its SMS SPIs to measure safety performance in the area of cabin operations. Several of these SPIs reflect “negative” outcomes or occurrences that the operator wishes to avoid:

- a) inadvertent slide deployments;
- b) smoke or fire on board;
- c) turbulence-related injuries;
- d) injuries related to rapid deplaning or evacuation;
- e) uncommanded rapid deplaning or evacuation;
- f) cabin crew injuries;
- g) cabin crew incapacitation that renders them unable to perform critical safety duties;
- h) events involving lithium batteries (fire/smoke/overheat);
- i) slow decompression (pressurization system failures);
- j) medical emergencies on board;
- k) foreign object damage;
- l) events including damage to safety and emergency equipment;
- m) equipment failures (e.g. medical equipment such as automated external defibrillators; emergency equipment such as megaphones);
- n) cabin not secured for take-off and landing; and
- o) any event indicating circumstances in which an accident nearly occurred.

5.7.2 The operator should also include SPIs that monitor inputs and processes, with data collected from internal activities. These SPIs can go beyond operational issues and undesired situations. Some SPIs can present “positive” outcomes or achievements and be indicative of a positive safety culture such as:

- a) developing internal policies;
- b) developing standard operating procedures;
- c) proactive reporting and efficient reporting systems;
- d) level of regulatory compliance by the operator;
- e) quantity of audits performed in a given timeframe;
- f) number of operator personnel trained in a given timeframe on a particular subject (e.g. incident investigation);

- g) rate of voluntary occurrence reports; and
- h) rate of mandatory occurrence reports.

## 5.8 SAFETY PERFORMANCE TARGETS

When setting SPTs, the State and the operator should verify that these targets encourage the desired behaviour in personnel. SPTs can impact individuals' behaviours and contribute to desired outcomes (e.g. if the achievement of an SPT is linked to organizational rewards, such as management remuneration). SPTs should foster positive behaviours both at the individual and organizational levels that deliberately result in defensible decisions and improvements in safety performance. Some SPTs may contribute to undesired behaviours in personnel (as may be the case with SPIs) and have a negative impact on safety (e.g. cabin crew omitting pre-flight safety checks to meet targets related to on-time departures).

*Note.— Additional guidance on considerations for SPT selection and caveats on setting SPTs is contained in the Safety Management Manual (Doc 9859).*

## 5.9 LINK BETWEEN SPIs, SPTs AND SAFETY OBJECTIVES

5.9.1 There should be a link between SPIs, SPTs and safety objectives, as presented in Table 5-1. On the first left column of this table, different examples depict types of outcomes or activities to be monitored, with numerical values set to determine what is acceptable. In the second column, SPTs take those same SPIs and establish a reduction of events or upper limit, which should not be exceeded over a given period (i.e. milestones over short-term and medium-term). In the third column, the safety objectives present brief, high-level statements for achieving the desired safety performance related to the types of events or activities identified in the SPIs. Likewise, SPIs, SPTs and safety objectives can determine a minimum number of activities that should be completed to ensure safe operations, such as training or checking.

**Table 5-1 Examples of links between SPIs, SPTs and safety objectives**

	<i>Safety performance indicator</i>	<i>Safety performance target</i>	<i>Safety objective</i>
Outcome-related	[Number] turbulence-related injuries per [number] hours flown	<ul style="list-style-type: none"> <li>• Less than [number] turbulence-related injuries per [number] hours flown in [year 1]</li> <li>• Less than [number] turbulence-related injuries per [number] hours flown in [year 2]</li> <li>• Less than [number] turbulence-related injuries per [number] hours flown in [year 3]</li> </ul>	Reduce turbulence-related injuries.
Activity-related	[Number] cabin crew line checks completed [month]	<ul style="list-style-type: none"> <li>• [Minimum number] of cabin crew line checks completed in [month 1]</li> <li>• [Minimum number] of cabin crew line checks completed in [month 2]</li> <li>• [Minimum number] of cabin crew line checks completed in [month 3]</li> </ul>	Increase cabin crew adherence with operator procedures

5.9.2 SEIs are actions to eliminate or mitigate safety risks associated with contributing factors to a safety occurrence or to address an identified safety issue. They encompass tools and means used to attain the safety objectives established by the State or the operator. These include:

- a) reviewing or introducing new procedures in the CCOM;
- b) improvements in technology, such as the installation of equipment in the cabin;
- c) developments or enhancements to existing systems; and
- d) cabin crew training programmes aimed at a particular issue.

5.9.3 Table 5-2 presents an example of the links between SPIs, SEIs, SPTs and safety objectives. As a first step following the data analysis, the State or the operator should define its SPIs. It should then define SPTs that express short-term and medium-term objectives (milestones) based on the SPIs. Finally, it should establish safety objectives, related to the SPIs and SPTs as long-term goals. SEIs should be developed to attain the SPTs and ultimately the safety objectives. SPIs are a snapshot of safety performance (at a moment in time) whereas the SPTs and the safety objectives are what the cabin safety-related SEIs aim to achieve in the short-, medium- and long-term.

5.9.4 Fluctuations may skew the measurement of an SPI or SPT (e.g. the increase in the number of flights over the summer months may result in an increase in the number of incidents). To account for such fluctuations, where appropriate, SPIs and SPTs should be expressed in terms of a relative rate to measure the performance level regardless of the level of activity (e.g. number of events per number of sectors flown by the operator). This provides a normalized measure of performance whether the activity increases or decreases.

**Table 5-2 Examples of links between SPIs, SEIs and SPTs**

<i>Safety performance indicator</i>	[number] of inadvertent slide deployments per [number] operations
<i>Safety enhancement initiatives</i>	<ul style="list-style-type: none"> <li>• Acquisition of new emergency exit trainer device</li> <li>• New recurrent training module for cabin crew members over the next year on door operation</li> </ul>
<i>Safety performance target</i>	<ul style="list-style-type: none"> <li>• Maintain no more than 8 inadvertent slide deployments per 10,000 operations by 2022</li> <li>• Maintain no more than 6 inadvertent slide deployments per 10,000 operations by 2023</li> <li>• Maintain no more than 4 inadvertent slide deployments per 10,000 operations by 2024</li> </ul>
<i>Safety objective</i>	Reduce ground and in-flight damage events at the operator

## **5.10 COMPREHENSIVE APPROACH TO SAFETY PERFORMANCE MANAGEMENT**

5.10.1 As part of the safety assurance component of its SSP, the State should adopt a comprehensive safety performance management process. Through SSP processes and effective safety oversight, the State should identify hazards in cabin operations which are common to multiple operators at the national level. It should manage safety risks by using safety risk controls to mitigate the potential consequences of those hazards and to determine the effectiveness of existing safety risk mitigations. This may be accomplished by changes to existing regulations or the establishment of new ones; the development of SEIs aimed at improving cabin safety (e.g. the promotion of competency-based training and assessment for cabin crew members through national workshops); and the promotion of safety risk management approaches at the operator level (e.g. to proactively address changes in the aviation system).

5.10.2 A key outcome of establishing safety performance management is the presentation of information based on the results of monitored and measured SPIs to the organization's decision-makers. This allows senior management to be aware of the current situation and decide if actions are required to further mitigate safety risks and ensure the organization achieves its safety objectives.

5.10.3 Safety performance management aims at continuous improvement. Monitoring, measuring and improving safety performance enables the State (and the operator) to assure that safety risks are managed in an acceptable manner, and to adapt safety management processes, when safety risks are managed ineffectively or new hazards arise. This in turn will assure safety objectives are met. At the State level, the effectiveness of the State's safety oversight system in regulating cabin operations should be monitored. This includes measuring the effectiveness of the State in terms of:

- a) initial certification of cabin operations-related aspects for new operators (e.g. the conduct of an evacuation demonstration);
- b) approval of the operator's cabin crew training programmes and subsequent modifications;
- c) issuance of cabin crew member licences (in States where applicable);



- 
- d) acceptance of cabin operations-related aspects of the SMS, including SPIs and SPTs;
  - e) issuance of authorizations or exemptions related to cabin operations;
  - f) SRM and safety assurance processes of the SSP and their ability to identify hazards related to cabin operations and evaluate existing safety risk mitigations;
  - g) surveillance activities on cabin operations at the individual operator level (e.g. in-flight inspections);  
and
  - h) resolution of safety issues related to cabin operations at the operator and national levels.

5.10.4 Ultimately, safety performance management enables the State to make informed decisions to continuously improve safety at the national level.

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## Appendix to Chapter 5

### SAMPLE SAFETY PERFORMANCE INDICATOR FORM

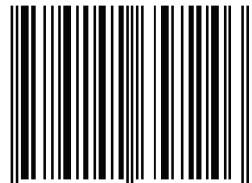
PART A: INDICATOR IDENTIFICATION			
<b>1. INDICATOR</b> <i>Enter a name for the indicator.</i>			
<b>2. DESCRIPTION</b> <i>Enter a brief description for the indicator.</i>			
<b>3. SAFETY OBJECTIVE</b> <i>List the safety objective(s) the indicator supports.</i>			
PART B: INDICATOR SPECIFICATIONS			
<b>4. AREA OF OPERATIONS</b> <i>For example, cabin operations.</i>			
<b>5. PROJECT OR PROGRAMME</b> <i>If applicable, identify the specific project or programme to which the indicator is related (e.g. training).</i>			
<b>6. INDICATOR TYPE</b>			
The indicator is:	<input type="checkbox"/> activity-related (predictive or leading)	OR	<input type="checkbox"/> outcome-related (reactive or lagging)
<b>7. RATIONALE</b> <i>Explain how the indicator is related to the safety objective above and what its measurement supports.</i>			
<b>8. LIMITATIONS</b> <i>Describe the scope of the variable or entity that the indicator measures.</i>			
<b>9. DEFINITION OF TECHNICAL OR SPECIFIC TERMS</b> <i>If applicable, provide a definition of technical or specific terms.</i>			
<b>10. CALCULATION METHOD/FORMULA</b> <i>If applicable, provide the specific calculation formula.</i>			

<b>PART C: DATA</b>				
In the table below, provide information about the data supporting the measurement of the indicator.				
<b>11. DATA SET(S)</b>	<b>12. AVAILABILITY</b>	<b>13. DISAGGREGATION LEVEL</b>	<b>14. PROVIDER</b>	<b>15. CUSTODIAN</b>

— END —



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