



ICAO

Doc 10158

Manual on Safety Management in Cabin Operations

First Edition, 2022



Approved by and published under the authority of the Secretary General

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AMENDMENTS

Amendments are announced in the supplements to the *Products and Services Catalogue*; the Catalogue and its supplements are available on the ICAO website at www.icao.int. The space below is provided to keep a record of such amendments.

RECORD OF AMENDMENTS AND CORRIGENDA

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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

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

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.

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</i> (Doc 10072)
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	• <i>Guidance on the Preparation of an Operations Manual</i> (Doc 10153) • <i>Manual on the Implementation and Use of Cabin Electronic Flight Bags</i> (Doc 10111)
Cabin crew safety training programme, including initial, recurrent and requalification training	Annex 6, Part I — 12.4	• <i>Cabin Crew Safety Training Manual</i> (Doc 10002) • <i>Guidelines on Digital Learning for Cabin Crew Training</i> (Cir 356)
Protection of cabin crew during flight	Annex 6, Part I — 12.3	• <i>Cabin Crew Safety Training Manual</i> (Doc 10002) • <i>Manual on Information and Instructions for Passenger Safety</i> (Doc 10086)
Transport and management of special categories of passengers	Annex 9 — 8.22 to 8.26	• <i>Manual on Access to Air Transport by Persons with Disabilities</i> (Doc 9984) • <i>Manual on Information and Instructions for Passenger Safety</i> (Doc 10086)
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	• <i>Technical Instructions for the Safe Transport of Dangerous Goods by Air</i> (Doc 9284) • <i>Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods</i> (Doc 9481) • <i>Cabin Crew Safety Training Manual</i> (Doc 10002)

<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)	• <i>Cabin Crew Safety Training Manual</i> (Doc 10002) • <i>Manual on the Approval and Use of Child Restraint Systems</i> (Doc 10049) • <i>Manual on Information and Instructions for Passenger Safety</i> (Doc 10086) • <i>Guidance on the Preparation of an Operations Manual</i> (Doc 10153)
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	• <i>Aviation Security Manual</i> (Doc 8973 — Restricted) • <i>Manual on the Implementation of the Security Provisions of Annex 6</i> (Doc 9811 — Restricted)
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	• <i>Manual for the Oversight of Fatigue Management Approaches</i> (Doc 9966) • <i>ICAO-IATA-IFALPA Fatigue Management Guide for Airline Operators</i>
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.