

The Republic of the Union of Myanmar
Ministry of Transport and Communications
Department of Civil Aviation



Myanmar Civil Aviation Requirements

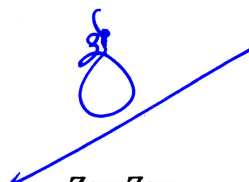
Safety Management

Published by
Standards and Safety Oversight Division

Second Edition – 1 July 2025

FOREWORD

- 1.1 This Myanmar Civil Aviation Requirement (MCAIR – Safety Management) is issued in exercise of the powers conferred by Section 5(A)(c) of the Myanmar Aircraft Act (1934), as amended on 15 October 2013, under the delegated authority of the Ministry of Transport and Communications, and in accordance with Section 4A to perform Safety Oversight functions with respect to matters specified in the Act or the Rules made thereunder. This requirement is intended to support Safety Management activities and the effective management of safety risks.
- 1.2 This edition has been developed in alignment with the provisions of ICAO Annex 19- Safety Management, to assist in the implementation of a State Safety Programme (SSP) and to ensure that service providers establish Safety Management Systems (SMS) in accordance with International Standards.
- 1.3 Further guidance on the SSP framework, SMS principles, and related safety management functions is provided in the ICAO Safety Management Manual (*Doc 9859*), as amended.
- 1.4 This Second Edition of the MCAIR-Safety Management shall take effect on *1 July 2025*.



Zaw Zaw
Director General
Department of Civil Aviation

TABLE OF CONTENT

<u>Description</u>	<u>Date</u>	<u>Page</u>
FOREWORD	1 July 2025	1
Table of Content	1 July 2025	2-3
Record of Revision	1 July 2025	4
Abbreviations	1 July 2025	5
CHAPTER 1. Definitions	1 July 2025	7-9
CHAPTER 2. Applicability	1 July 2025	10
CHAPTER 3. State Safety Management Responsibilities	1 July 2025	12
3.1 State Safety Programme (SSP)	1 July 2025	12
3.2 State Safety Policy, Objectives and Resources	1 July 2025	12
3.3 State Safety Risk Management	1 July 2025	13
3.4 State Safety Assurance	1 July 2025	14
3.5 State Safety Promotion	1 July 2025	15
CHAPTER 4. Safety Management System (SMS)	1 July 2025	16
4.1 General	1 July 2025	16
4.2 International General Aviation — Aeroplanes	1 July 2025	17
CHAPTER 5. Safety Data and Safety Information Collection, Analysis, Protection, Sharing and Exchange	1 July 2025	19
5.1 Safety Data Collection and Processing Systems	1 July 2025	19
5.2 Safety Data and Safety Information Analysis	1 July 2025	20
5.3 Safety Data and Safety Information Protection	1 July 2025	20
5.4 Safety Information Sharing and Exchange	1 July 2025	21
APPENDIX 1. State Safety Oversight System Critical Elements (CEs)	1 July 2025	23
1 Primary Aviation Legislation (CE-1)	1 July 2025	23
2 Specific Operating Regulations (CE-2)	1 July 2025	23
3 State System and Functions (CE-3)	1 July 2025	23
4 Qualified Technical Personnel (CE-4)	1 July 2025	24
5 Technical Guidance, Tools and Provision of Safety Critical Information(CE5)	1 July 2025	24
6 Licensing, Certification, Authorization and Approval Obligations(CE-6)	1 July 2025	24
7 Surveillance Obligations (CE-7)	1 July 2025	25
8 Resolution of Safety Issues (CE-8)	1 July 2025	25

<u>Description</u>	<u>Date</u>	<u>Page</u>
APPENDIX 2. Framework for A Safety Management System (SMS)	1 July 2025	26
1 Safety Policy and Objectives	1 July 2025	26
2 Safety Risk Management	1 July 2025	28
3 Safety Assurance	1 July 2025	28
4 Safety Promotion	1 July 2025	28
APPENDIX 3. Principles for the Protection of Safety Data, Safety Information and Related Sources	1 July 2025	30
1 General Principles	1 July 2025	30
2 Principles of Protection	1 July 2025	30
3 Principles of Exception	1 July 2025	31
4 Public Disclosure	1 July 2025	31
5 Responsibility of the Custodian of Safety Data and Safety Information	1 July 2025	32
6 Protection of Recorded Data	1 July 2025	32

Record of Revision

Edition No.	Effective Date	Reason for Changes
First Edition	1 July 2017	Initial issued Safety Management procedures and reflect the 1 st edition of ICAO Annex 19 and Doc.9859, PANS-ABC, Doc 8400.
Second Edition	1 July 2025	Reflect the 2 nd Edition of ICAO Annex 19, including the addition of new definitions, certain procedures and a reformatted structure to ensure uniform standardization.

ABBREVIATIONS (used in this MCAR)

ADREP	Accident/Incident Data Reporting
ATS	Air Traffic Services
CVR	Cockpit Voice Recorder
DCA	Department of Civil Aviation
MCAR	Myanmar Civil Aviation Requirements
RAIO	Regional Accident and Incident Investigation Organization
RSOO	Regional Safety Oversight Organization
SARPS	Standards and Recommended Practices
SDCPS	Safety Data Collection and Processing Systems
SMM	Safety Management Manual
SMP	Safety Management Panel
SMS	Safety Management System
SSO	State Safety Oversight
SSP	State Safety Programme

(Intentionally left blank)

CHAPTER 1. DEFINITIONS

WHEN the following terms are used in the Myanmar Civil Aviation Requirements for Safety Management, they have the following meanings _

Accident. An occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down, in which:

- a) a person is fatally or seriously injured as a result of:
 - being in the aircraft, or
 - direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
 - direct exposure to jet blast,
 except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or
- b) the aircraft sustains damage or structural failure which:
 - adversely affects the structural strength, performance or flight characteristics of the aircraft, and
 - would normally require major repair or replacement of the affected component,
 except for engine failure or damage, when the damage is limited to a single engine (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes), or for minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike (including holes in the radome); or
- c) the aircraft is missing or is completely inaccessible.

Note 1. For statistical uniformity only, an injury resulting in death within thirty days of the date of the accident is classified by ICAO as a fatal injury.

Note 2. An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.

Note 3. The type of unmanned aircraft system to be investigated is addressed in 2.3 of Annex 13.

Note 4. Guidance for the determination of aircraft damage can be found in Attachment E of Annex 13.

Aeroplane. A power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight.

Aircraft. Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.

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

Helicopter. A heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes.

Note. Some States use the term “rotorcraft” as an alternative to “helicopter”.

Incident. An occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation.

Note. The types of incidents which are of main interest to the International Civil Aviation Organization for accident prevention studies are the incidents listed in Annex 13, Attachment C.

Industry Codes of Practice. Guidance material developed by an industry body, for a particular sector of the aviation industry to comply with the requirements of the International Civil Aviation Organization’s Standards and Recommended Practices, other aviation safety requirements and the best practices deemed appropriate.

Note. Some States accept and reference industry codes of practice in the development of regulations to meet the requirements of Annex 19, and make available, for the industry codes of practice, their sources and how they may be obtained.

Operational Personnel. Personnel involved in aviation activities who are in a position to report safety information.

Note. Such personnel include, but are not limited to: Flight Crews; Air Traffic Controllers; Aeronautical Station Operators; Maintenance Technicians; Personnel of Aircraft Design and Manufacturing Organizations; Cabin Crews; Flight Dispatchers, Apron Personnel and Ground Handling Personnel.

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 Data. A defined set of facts or set of safety values collected from various aviation-related sources, which is used to maintain or improve safety.

Note. Such safety data is collected from proactive or reactive safety related activities, including but not limited to:

- a) accident or incident investigations;
- b) safety reporting;
- c) continuing airworthiness reporting;
- d) operational performance monitoring;
- e) inspections, audits, surveys; or
- f) safety studies and reviews.

Safety Information. Safety data processed, organized or analyzed in a given context so as to make it useful for safety management purposes.

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

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.

Serious Injury. An injury which is sustained by a person in an accident and which:

- a) requires hospitalization for more than 48 hours, commencing within seven days from the date the injury was received; or
- b) results in a fracture of any bone (except simple fractures of fingers, toes or nose); or
- c) involves lacerations which cause severe haemorrhage, nerve, muscle or tendon damage; or
- d) involves injury to any internal organ; or
- e) involves second or third degree burns, or any burns affecting more than 5 per cent of the body surface; or
- f) involves verified exposure to infectious substances or injurious radiation.

State of Design. The State having jurisdiction over the organization responsible for the type design.

State of Manufacture. The State having jurisdiction over the organization responsible for the final assembly of the aircraft, engine or propeller.

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 of Registry. The State on whose register the aircraft is entered.

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.

CHAPTER 2. APPLICABILITY

The Requirements contained in this MCAR-Safety Management, shall be applicable to safety management functions related to, or in direct support of, the safe Operation of Aircraft.

- Note 1.* Safety Management provisions are contained in Chapter 3 and relate to a State Safety Programme.
- Note 2.* Within the context of this MCAR-Safety Management, the term “Service Provider” refers to those organizations listed in Chapter 3, 3.3.2.1 and does not include International General Aviation Operators.
- Note 3.* Safety management provisions for specified aviation service providers and operators are in Chapter 4 and relate to safety management systems (SMSs).
- Note 4.* No provision of this MCAR-Safety Management, is intended to transfer to the DCA the responsibilities of the aviation service provider or operator. This includes functions related to, or in direct support of, the safe operation of aircraft.
- Note 5.* In the context of this MCAR-Safety Management, “responsibility” (singular) refers to “DCA responsibility” with respect to international obligations under the Convention on International Civil Aviation, while “responsibilities” (plural) should be given its ordinary meaning (i.e., when referring to functions and activities).

(Intentionally left blank)

CHAPTER 3. STATE SAFETY MANAGEMENT RESPONSIBILITIES

- Note 1.* The safety oversight (SSO) system critical elements (CEs) found in Appendix 1, constitute the foundation of an SSP.
- Note 2.* Safety management provisions pertaining to specific types of aviation activities are addressed in the relevant MCARs.
- Note 3.* Basic safety management principles applicable to the medical assessment process of licence holders are contained in related MCAR. Guidance is available in the Manual of Civil Aviation Medicine (Doc 8984).

3.1 State Safety Programme (SSP)

State Safety Programme (SSP) shall be established and maintained for the Safety Management System of the Department of Civil Aviation (DCA), in order to achieve an Acceptable Level of Safety Performance in civil aviation.

Note. Guidance on an SSP and the Safety Management-related functions and activities are contained in the Safety Management Manual (Doc 9859).

3.2 State Safety Policy, Objectives and Resources

3.2.1 Primary Aviation Legislation

- 3.2.1.1 The primary aviation legislation shall be established in accordance with section 1 of Appendix 1.
- 3.2.1.2 *Recommendation.* An enforcement policy shall be established that specifies the conditions and circumstances under which service providers with an SMS are allowed to deal with, and resolve, events involving certain safety issues, internally, within the context of their SMS and to the satisfaction of the appropriate State authority.

3.2.2 Specific Operating Regulations

- 3.2.2.1 The Specific Operating Regulations States shall establish in accordance with section 2 of Appendix 1.
- 3.2.2.2 Specific operating regulations, guidance material, and implementation policies shall be reviewed periodically to ensure they remain relevant and appropriate.

3.2.3 State System and Functions

- 3.2.3.1 State system and functions shall be established in accordance with section 3 of Appendix 1.
- 3.2.3.2 *Recommendation.* DCA shall identify, define, and document the requirements, obligations, functions, and activities related to establishment, implementation, and maintenance of the State Safety Programme (SSP), including the directives to plan, organize, develop, maintain, control and continuously improve the SSP in a manner that ensures the achievement of the State's safety objectives.
- 3.2.3.3 *Recommendation.* A safety policy and safety objectives shall be established that reflect their commitment regarding safety and facilitate the promotion of a

positive safety culture in the aviation community.

- 3.2.3.4 *Recommendation.* The safety policy and safety objectives should be published and periodically reviewed to ensure that they remain relevant and appropriate.

3.2.4 Qualified Technical Personnel

- 3.2.4.1 The requirements for the qualification of technical personnel shall be established in accordance with section 4 of Appendix 1.

Note. The term “technical personnel” refers to those persons performing safety-related functions for or on behalf of the DCA.

3.2.5 Technical Guidance, Tools and Provision of Safety-Critical Information

The DCA shall establish technical guidance and tools, and provides safety-critical information in accordance with Section 5 of Appendix 1.

3.3 State Safety Risk Management

3.3.1. Licensing, Certification, Authorization and Approval Obligations

The DCA shall meet the licensing, certification, authorization and approval obligations in accordance with Section 6 of Appendix 1.

3.3.2. Safety Management System Obligations

- 3.3.2.1 The DCA shall require that the following service providers under its authority implement a Safety Management System (SMS):

- a) Approved Training Organizations in accordance with related MCAR that are exposed to safety risks related to aircraft operations during the provision of their services;
- b) Operators of aeroplanes or helicopters authorized to conduct international commercial air transport, in accordance with related MCARs, respectively;

Note. When Maintenance Activities are not conducted by an approved maintenance organization in accordance with related MCAR, but under an equivalent system, they are included in the scope of the operator’s SMS.

- c) Approved Maintenance Organizations providing services to operators of aeroplanes or helicopters engaged in international commercial air transport, in accordance with related MCAR, respectively;
- d) Organizations responsible for the Type Design or Manufacture of Aircraft, Engines or Propellers in accordance with related Requirements;
- e) Air Traffic Services (ATS) providers in accordance with related MCAR; and
- f) Operators of Certified Aerodromes in accordance with related MCAR.

Note. Further provisions related to the implementation of SMS by service providers can be found in Chapter 4.

- 3.3.2.2. *Recommendation.* The DCA should ensure that the safety performance indicators and safety performance targets established by service providers and operators are acceptable to the State.

Note. Guidance on the identification of appropriate safety performance indicators and targets is contained in the Safety Management Manual (Doc 9859).

3.3.2.3. The State of Registry shall establish criteria for International General Aviation Operators of Large or Turbojet aeroplanes in accordance with related Requirements, to implement an SMS.

Note. Further provisions related to the implementation of SMS by International General Aviation Operators can be found in Chapter 4.

3.3.2.4. The criteria established by the State of Registry in accordance with 3.3.2.3 shall address the SMS framework and elements contained in Appendix 2.

Note. Guidance on establishing the criteria to implement an SMS for international general aviation operators is contained in the Safety Management Manual (Doc 9859).

3.3.3. Accident and Incident Investigation

The relevant authority shall establish a process for investigation of accidents and incidents in accordance with ICAO Annex 13, to support the State's safety management system.

3.3.4. Hazard Identification and Safety Risk Assessment

3.3.4.1 The DCA shall establish and maintain a process to identify hazards from collected safety data.

Note 1. Further information regarding safety data collection, analysis, and the sharing and exchange of safety information can be found in Chapter 5.

Note 2. Additional information to identify hazards and safety issues for preventive actions may be contained in the final reports of accidents and incidents.

3.3.4.2 The DCA shall develop and maintain a process to ensure the assessment of safety risks associated with identified hazards.

3.3.5. Management of Safety Risks

3.3.5.1 The DCA shall establish mechanisms for the resolution of safety issues in accordance with Section 8 of Appendix 1.

3.3.5.2 *Recommendation.* The DCA should develop and maintain a process to manage safety risks.

Note 1. Actions taken to manage safety risks may include: acceptance, mitigation, avoidance or transfer.

Note 2. Safety risks and safety issues often have underlying factors which need to be carefully assessed.

3.4 State Safety Assurance

3.4.1 Surveillance Obligations

3.4.1.1 The DCA shall meet the surveillance obligations in accordance with Section 7 of Appendix 1.

Note. The surveillance of a service provider shall consider the safety performance as well as the size and complexity of its aviation products or services.

3.4.1.2 *Recommendation.* The DCA should establish procedures to prioritize inspections, audits, and surveys towards areas of greater safety concern or need.

Note. Organizational risk profiles, outcomes of hazard identification and risk assessment, and surveillance outcomes may provide information for prioritizing inspections, audits, and surveys.

3.4.1.3 *Recommendation.* The DCA should periodically review the safety performance of individual service providers.

3.4.2 State Safety Performance

3.4.2.1 The DCA shall establish the acceptable level of safety performance (ALoSP) to be achieved through its State Safety Programme (SSP).

Note 1. An acceptable level of safety performance can be achieved through the implementation and maintenance of the SSP, supported by safety performance indicators and targets that demonstrate effective safety management based on the implementation of existing safety-related SARPs.

Note 2. Guidance on establishing safety performance indicators, safety performance targets, and an acceptable level of safety performance is provided in the Safety Management Manual (Doc 9859).

3.4.2.2 *Recommendation.* The DCA should develop and maintain a process to evaluate the effectiveness of actions taken to manage safety risks and resolve safety issues.

Note. Safety assessment results may support the prioritization of actions to manage safety risks.

3.4.2.3 *Recommendation.* The DCA should evaluate the effectiveness of the SSP to maintain or continuously improve the overall level of safety performance.

3.5 State Safety Promotion

3.5.1 Internal Communication and Dissemination of Safety Information

Recommendation. The DCA should promote safety awareness and encourage the sharing and exchange of safety information within State aviation organizations to support the development of a positive safety culture that fosters an effective State Safety Programme (SSP).

3.5.2 External Communication and Dissemination of Safety Information

Recommendation. The DCA should promote safety awareness and facilitate the sharing and exchange of safety information with the wider aviation community to maintain and improve safety and to support the development of a positive Safety Culture.

Note 1. Refer to Chapter 5, Section 5.4, for further details regarding the sharing and exchange of safety information.

Note 2. Promoting safety awareness may include making accessible safety training available to the aviation community.

CHAPTER 4. SAFETY MANAGEMENT SYSTEM (SMS)

4.1 General

Note 1. Guidance on the implementation of a Safety Management System (SMS) is contained in the Safety Management Manual (Doc 9859).

Note 2. An organization may elect to implement a single SMS covering multiple service provider activities.

4.1.1 A service provider's SMS shall:

- a) be established in accordance with the framework elements contained in Appendix 2; and
- b) be commensurate with the size of the service provider and the complexity of its aviation products or services.

4.1.2 The DCA shall ensure that each service provider develops a plan to facilitate SMS implementation.

4.1.3. The SMS of an Approved Training Organization, in accordance with related Requirements, that is exposed to safety risks related to aircraft operations during the provision of its services shall be made acceptable to the DCA and/or the State(s) responsible for the Organization's Approval.

4.1.4. The SMS of a Certified Operator of aeroplanes or helicopters authorized to conduct international commercial air transport, in accordance with related Requirements, respectively, shall be made acceptable to the DCA and/or the State(s) responsible for the Organization's Approval.

Note. When maintenance activities are not conducted by an approved maintenance organization in accordance with related Requirements, but under an equivalent system, they are included in the scope of the operator's SMS.

4.1.5. The SMS of an Approved Maintenance Organization providing services to operators of aeroplanes or helicopters engaged in international commercial air transport, in accordance with related Requirements respectively shall be made acceptable to the DCA and/or the State(s) responsible for the Organization's Approval.

4.1.6. The SMS of an organization responsible for the type design of Aircraft, Engines or Propellers, in accordance with related Requirements, shall be made acceptable to the State of Design.

4.1.7. The SMS of an organization responsible for the manufacture of aircraft, engines or propellers, in accordance with related Requirements, shall be made acceptable to the State of Manufacture.

4.1.8. The SMS of an ATS provider, in accordance with related Requirements, shall be made acceptable to the DCA and/or the State(s) responsible for the organization's approval.

4.1.9. The SMS of an operator of a Certified Aerodrome, in accordance with related Requirements, shall be made acceptable to the DCA and/or the State(s) responsible for the Organization's Approval.

4.2 International General Aviation — Aeroplanes

Note. Guidance on the implementation of an SMS for international general aviation is contained in the Safety Management Manual (Doc 9859) and industry codes of practice.

The SMS of an International General Aviation Operator, conducting operations of large or turbojet aeroplanes in accordance with related Requirements respectively shall be commensurate with the size and complexity of the operation and meet the criteria established by the State of Registry.

Note 1. Further provisions related to the criteria to be established by the State of Registry can be found in Chapter 3.

Note 2. Guidance concerning the responsibilities of the State of Registry in connection with lease, charter and interchange operations is contained in the Manual of Procedures for Operations Inspection, Certification and Continued Surveillance (Doc 8335). Guidance concerning the transfer of State of Registry responsibilities to the State where the aircraft operator has its principal place of business or, if it has no such place of business, its permanent address in accordance with Article 83bis is contained in the Manual on the Implementation of Article 83bis of the Convention on International Civil Aviation (Doc 10059).

(Intentionally left blank)

CHAPTER 5. SAFETY DATA AND SAFETY INFORMATION COLLECTION, ANALYSIS, PROTECTION, SHARING AND EXCHANGE

Note. The objective of this chapter is to ensure the continued availability of safety data and safety information to support safety management activities.

5.1 Safety Data Collection and Processing Systems

5.1.1. The DCA shall establish safety data collection and processing systems (SDCPS) to Capture, Store, Aggregate and Enable the analysis of Safety Data and Safety Information.

Note 1. SDCPS refers to processing and reporting systems, safety databases, schemes for exchange of information, and recorded information including but not limited to:

- a) data and information pertaining to accident and incident investigations;
- b) data and information related to safety investigations by State authorities or aviation service providers;
- c) mandatory safety reporting systems as indicated in 5.1.2;
- d) voluntary safety reporting systems as indicated in 5.1.3; and
- e) Self-disclosure reporting systems, including automatic data capture systems as well as manual data capture systems.

Note 2. Guidance related to SDCPS is contained in the Safety Management Manual (Doc 9859).

Note 3. The term “Safety Database” may refer to a single or multiple database(s).

Note 4. SDCPS may include inputs from State, industry and public sources, and may be based on reactive and proactive methods of safety data and safety information collection.

Note 5. Sector-specific safety reporting provisions are contained in other Annexes, PANS and SUPPs. There is a recognized benefit to the effective implementation of an SSP in having an integrated approach for the collection and analysis of the safety data and safety information from all sources.

5.1.2 The DCA shall establish a mandatory safety reporting system, which includes the reporting of incidents, in accordance with international safety management principles.

5.1.3 The DCA shall establish a voluntary safety reporting system to collect safety data and safety information that may not be captured by the mandatory reporting system.

5.1.4. *Recommendation.* The Division(s) under the DCA, responsible for the implementation of the State Safety Programme (SSP) should have access to the Safety Data Collection and Processing Systems (SDCPS) referenced in 5.1.1, in order to support their safety oversight responsibilities, in accordance with the principles outlined in Appendix 3.

Note. State authorities including accident investigation authorities, responsible for the implementation of the SSP.

- 5.1.5 *Recommendation.* The safety database should use standardized taxonomy to facilitate safety information sharing and exchange.

5.2 Safety Data and Safety Information Analysis

- 5.2.1 The DCA shall establish and maintain a process to analyze safety data and safety information collected through the Safety Data Collection and Processing Systems (SDCPS) and associated safety databases.

Note 1. Specific provisions for hazard identification as part of the DCA's safety risk management and safety assurance processes are provided in Chapter 3.

Note 2. The purpose of this analysis is to identify systemic and cross-cutting hazards that may not be detectable by the safety data analysis processes of individual service providers and operators.

Note 3. The analysis process may include predictive methods of safety data analysis.

5.3 Safety Data and Safety Information Protection

- 5.3.1 The DCA shall provide protection for safety data captured by, and safety information derived from, voluntary safety reporting systems and related sources, in accordance with the principles outlined in Appendix 3.

Note. Sources may include individuals and organizations.

- 5.3.2 *Recommendation.* The DCA should extend the protection described in 5.3.1 to safety data and safety information derived from mandatory safety reporting systems and their related sources.

Note 1. A reporting environment where employees and operational personnel trust that their actions or omissions when commensurate with their training and experience will not be punished is fundamental to safety reporting.

Note 2. Guidance on both mandatory and voluntary safety reporting systems is provided in the Safety Management Manual (Doc 9859).

- 5.3.3 Subject to the provisions in 5.3.1 and 5.3.2, the DCA shall not make available or use safety data or safety information collected, stored, or analyzed under 5.1 or 5.2 for purposes other than maintaining or improving aviation safety, unless the competent authority determines, in accordance with Appendix 3, that an exception principle applies.

- 5.3.4 Notwithstanding 5.3.3, the DCA shall not be prevented from using safety data or safety information to take any preventive, corrective, or remedial action necessary to maintain or improve aviation safety.

Note. Specific provisions ensuring no overlap with the protection of investigation records in Annex 13 are included in Appendix 3, paragraph 1.2.

- 5.3.5 The DCA shall take necessary measures, including the promotion of a positive safety culture, to encourage safety reporting through the systems referred to in 5.1.2 and 5.1.3.

Note. Guidance related to positive safety culture is contained in the Safety Management Manual (Doc 9859).

5.3.6 *Recommendation.* The DCA should facilitate and promote safety reporting by adjusting applicable laws, regulations, and policies, as necessary.

5.3.7 *Recommendation.* In support of the determination referenced in 5.3.3, the DCA should establish and apply appropriate advance arrangements between relevant aviation safety authorities and the judicial bodies or authorities responsible for administering justice. These arrangements should reflect the principles outlined in Appendix 3.

Note. Such arrangements may be formalized through legislation, protocols, agreements, or memoranda of understanding (MoUs).

5.4 Safety Information Sharing and Exchange

Note. “Sharing” refers to giving; “exchange” refers to giving and receiving in return.

5.4.1 If the DCA, through the analysis of information contained in its Safety Data Collection and Processing Systems (SDCPS), identifies safety matters that may be of interest to other States, the DCA shall forward such safety information to the concerned States as soon as possible. Prior to the dissemination of such information, the DCA shall coordinate and agree with the recipient States on the level of protection and conditions under which the safety information will be shared. These agreements shall be in accordance with the principles established in Appendix 3.

5.4.2 The DCA shall promote the establishment of safety information sharing and exchange networks among aviation system users and shall facilitate the sharing and exchange of safety information, unless otherwise restricted by national legislation.

Note. Guidance on safety information sharing is provided in the ICAO Code of Conduct on the Sharing and use of Safety Information in the Global Aviation Safety Plan (Doc 10004).

(Intentionally left blank)

APPENDIX 1. STATE SAFETY OVERSIGHT (SSO) SYSTEM CRITICAL ELEMENTS (CEs)

- Note 1. Guidance on the critical elements (CEs) of a system that enables a State to discharge its responsibility for safety oversight is contained in the Safety Oversight Manual, Part A, The Establishment and Management of a State's Safety Oversight System (Doc 9734).
- Note 2. The term "relevant Authorities or Agencies" is used in a generic sense to include all authorities with aviation safety management and oversight responsibility which may be established by States as separate entities, such as: Civil Aviation Authorities, Airport Authorities, ATS Authorities, Accident Investigation Authority, and Meteorological Authority.
- Note 3. The SSO system CEs are applied, as appropriate, to authorities performing safety oversight functions as well as authorities performing investigation of accidents and incidents or other State safety management activities.
- Note 4. MCARs for Operations should be included with the provisions specific to the safety oversight of Air Operators.

1. Primary Aviation Legislation (CE-1)

- 1.1 A comprehensive and effective aviation law shall be promulgated, commensurate with the size and complexity of aviation activity and consistent with the requirements contained in the Convention on International Civil Aviation, to enable the oversight and management of Civil Aviation safety and the enforcement of regulations through the relevant authorities or agencies established for that purpose.
- 1.2 The aviation law shall provide personnel performing safety oversight functions access to the aircraft, operations, facilities, personnel and associated records, as applicable, of individuals and organizations performing an aviation activity.

2. Specific Operating Regulations (CE-2)

The regulations shall be promulgated to address, at a minimum, national requirements emanating from the primary aviation legislation, for standardized operational procedures, products, services, equipment and infrastructures in conformity with the Annexes to the Convention on International Civil Aviation.

Note.- The term "regulations" is used in a generic sense and includes but is not limited to rules, requirements, directives, circulars, policies and orders.

3. State System and Functions (CE-3)

- 3.1 Authorities of relevant agencies shall be established, as appropriate (DCA), supported by sufficient and qualified personnel and provided with adequate financial resources for the management of safety.

- 3.2 The DCA have stated safety functions and objectives to fulfil their Safety Management Responsibility.

Note.- This includes the participation of the State aviation organizations in specific activities related to the management of safety in the State, and the establishment of the roles, responsibilities and relationships of such organizations.

- 3.3 The necessary measures should be taken, such as remuneration and conditions of service, to ensure that qualified personnel performing safety oversight functions are recruited and retained.
- 3.4 Personnel performing safety oversight functions shall be provided with guidance that addresses ethics, personal conduct and the avoidance of actual or perceived conflicts of interest in the performance of official duties.
- 3.5 A methodology shall be used to determine staffing requirements for personnel performing safety oversight functions, taking into account the size and complexity of the aviation activities in their State.

Note. In addition, MCARs relating to aircraft operations should be required to use such a methodology to determine its inspector staffing requirements. Inspectors are a subset of personnel performing safety oversight functions.

4. Qualified Technical Personnel (CE-4)

- 4.1 The minimum qualification requirements for the technical personnel performing safety-related functions shall be established and provide for appropriate initial and recurrent training to maintain and enhance their competence at the desired level.
- 4.2 A system for the maintenance of training records shall be implemented for technical personnel.

5. Technical Guidance, Tools and Provision of Safety-Critical Information (CE-5)

- 5.1 The appropriate facilities, comprehensive and up-to-date technical guidance material and procedures, safety-critical information, tools and equipment, and transportation means, as applicable, shall be provided to the technical personnel to enable them to perform their safety oversight functions effectively and in accordance with established procedures in a standardized manner.
- 5.2 The technical guidance shall be provided to the aviation industry on the implementation of relevant regulations.

6. Licensing, Certification, Authorization and Approval Obligations (CE-6)

The documented processes and procedures shall be implemented to ensure that individuals and organizations performing an aviation activity 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.

7. Surveillance Obligations (CE-7)

The documented surveillance processes shall be implemented, by defining and planning inspections, audits and monitoring activities on a continuous basis, to proactively assure that aviation licence, certificate, authorization and approval holders continue to meet the established requirements. This includes the surveillance of personnel designated by the DCA to perform safety oversight functions on its behalf.

8. Resolution of Safety Issues (CE-8)

- 8.1 A documented process shall be used to take appropriate actions, up to and including enforcement measures, to resolve identified safety issues.
- 8.2 The identified safety issues shall be resolved in a timely manner through a system which monitors and records progress, including actions taken by individuals and organizations performing an aviation activity in resolving such issues.

APPENDIX 2.FRAMEWORK FOR A SAFETY MANAGEMENT SYSTEM (SMS)

This appendix specifies the framework for the implementation and maintenance of an SMS. The framework comprises four components and twelve elements as the minimum requirements for SMS Implementation:

1. Safety Policy and Objectives
 - 1.1 Management commitment
 - 1.2 Safety accountability and responsibilities
 - 1.3 Appointment of key safety personnel
 - 1.4 Coordination of emergency response planning
 - 1.5 SMS documentation
2. Safety Risk Management
 - 2.1 Hazard identification
 - 2.2 Safety risk assessment and mitigation
3. Safety Assurance
 - 3.1 Safety performance monitoring and measurement
 - 3.2 The management of change
 - 3.3 Continuous Improvement of the SMS
4. Safety Promotion
 - 4.1 Training and Education
 - 4.2 Safety communication

1. Safety Policy and Objectives

1.1 Management Commitment

1.1.1 The service provider shall define its safety policy in accordance with international and national requirements. The safety policy shall:

- a) reflect organizational commitment regarding safety, including the promotion of a positive safety culture;
- b) include a clear statement about the provision of the necessary resources for the implementation of the safety policy;
- c) include safety reporting procedures;
- d) clearly indicate which types of behaviours are unacceptable related to the service provider's aviation activities and include the circumstances under which disciplinary action would not apply;
- e) be signed by the Accountable Executive of the organization;
- f) be communicated, with visible endorsement, throughout the organization; and
- g) be periodically reviewed to ensure it remains relevant and appropriate to the service provider.

1.1.2 Taking due account of its safety policy, the service provider shall define safety objectives. The safety objectives shall:

- a) form the basis for safety performance monitoring and measurement as required by 3.1.2;

- b) reflect the service provider's commitment to maintain or continuously improve the overall effectiveness of the SMS;
- c) be communicated throughout the organization; and
- d) be periodically reviewed to ensure they remain relevant and appropriate to the service provider.

1.2 Safety Accountability and Responsibilities

The service provider shall:

- a) identify the accountable executive who, irrespective of other functions, is accountable on behalf of the organization for the implementation and maintenance of an effective SMS;
- b) clearly define lines of safety accountability throughout the organization, including a direct accountability for safety on the part of senior management;
- c) identify the responsibilities of all members of management, irrespective of other functions, as well as of employees, with respect to the safety performance of the organization;
- d) document and communicate safety accountability, responsibilities and authorities throughout the organization; and
- e) define the levels of management with authority to make decisions regarding safety risk tolerability.

1.3 Appointment of Key Safety Personnel

The service provider shall appoint a Safety Manager who is responsible for the implementation and maintenance of the SMS.

Note. Depending on the size of the service provider and the complexity of its aviation products or services, the responsibilities for the implementation and maintenance of the SMS may be assigned to one or more persons, fulfilling the role of safety manager, as their sole function or combined with other duties, provided these do not result in any conflicts of interest.

1.4 Coordination of Emergency Response Planning

The service provider required to establish and maintain an emergency response plan for accidents and incidents in aircraft operations and other aviation emergencies shall ensure that the emergency response plan is properly coordinated with the emergency response plans of those organizations it must interface with during the provision of its products and services.

1.5 SMS Documentation

1.5.1 The service provider shall develop and maintain an SMS manual that describes;

- a) its safety policy and objectives;
- b) its SMS requirements;
- c) its SMS processes and procedures; and
- d) its Accountability, responsibilities and authorities for SMS processes and procedures.

- 1.5.2 The service provider shall develop and maintain SMS operational records as part of its SMS documentation.

Note. Depending on the size of the service provider and the complexity of its aviation products or services, the SMS manual and SMS operational records may be in the form of stand-alone documents or may be integrated with other organizational documents (or documentation) maintained by the service provider.

2. Safety Risk Management

2.1 Hazard Identification

- 2.1.1 The service provider shall develop and maintain a process to identify hazards associated with its aviation products or services.

- 2.1.2 Hazard identification shall be based on a combination of reactive and proactive methods.

2.2 Safety risk assessment and mitigation

The service provider shall develop and maintain a process that ensures analysis, assessment and control of the safety risks associated with identified hazards.

3. Safety Assurance

3.1 Safety Performance Monitoring and Measurement

- 3.1.1 The service provider shall develop and maintain the means to verify the safety performance of the organization and to validate the effectiveness of safety risk controls.

Note. An internal audit process is one means to monitor compliance with safety regulations, the foundation upon which SMS is built, and assess the effectiveness of these safety risk controls and the SMS.

- 3.1.2 The service provider's safety performance shall be verified in reference to the safety performance indicators and safety performance targets of the SMS in support of the organization's safety objectives.

3.2 The Management of Change

The service provider shall develop and maintain a process to identify changes which may affect the level of safety risk associated with its aviation products or services and to identify and manage the safety risks that may arise from those changes.

3.3 Continuous Improvement of the SMS

The service provider shall monitor and assess its SMS processes to maintain or continuously improve the overall effectiveness of the SMS.

4. Safety Promotion

4.1 Training and Education

- 4.1.1 The service provider shall develop and maintain a safety training programme that ensures that personnel are trained and competent to perform their SMS duties.

- 4.1.2 The scope of the safety training programme shall be appropriate to each individual's involvement in the SMS.

4.2 Safety Communications

The service provider shall develop and maintain a formal means for safety communication that:

- a) ensures personnel are aware of the SMS to a degree commensurate with their positions;
- b) conveys safety-critical information;
- c) explains why particular actions are taken to improve safety; and
- d) explains why safety procedures are introduced or changed.

APPENDIX 3. PRINCIPLES FOR THE PROTECTION OF SAFETY DATA, SAFETY INFORMATION AND RELATED SOURCES

- Note 1.* The protection of safety data, safety information and related sources is essential to ensure their continued availability, since the use of safety data and safety information for purposes other than maintaining or improving safety may inhibit the future availability of such data and information, with a significant adverse effect on safety.
- Note 2.* In view of their different legal systems, States have the flexibility to draft their laws and regulations in accordance with their policies and practices.
- Note 3.* The principles contained in this appendix are aimed at assisting States to enact and adopt national laws, regulations and policies to protect safety data and safety information gathered from safety data collection and processing systems (SDCPS), as well as related sources, while allowing for the proper administration of justice and necessary actions for maintaining or improving aviation safety.
- Note 4.* The objective is to ensure the continued availability of safety data and safety information by restricting their use for purposes other than maintaining or improving aviation safety.

1. General Principles

- 1.1 The DCA shall ensure, through appropriate laws, regulations, and policies, that;
- a) a balance is struck between the need for the protection of safety data, safety information and related sources to maintain or improve aviation safety, and the need for the proper administration of justice;
 - b) safety data, safety information and related sources are protected in accordance with this appendix;
 - c) the conditions under which safety data, safety information and related sources qualify for protection are specified; and
 - d) safety data and safety information remain available for the purpose of maintaining or improving aviation safety.

Note: These protections are not intended to obstruct the administration of justice or compromise safety improvements.

- 1.2 When an investigation organization has been instituted, accident and incident investigation records shall be subject to the protections accorded therein.

2. Principles of Protection

- 2.1 The DCA shall ensure that safety data or safety information is not used for:
- a) disciplinary, civil, administrative and criminal proceedings against employees, operational personnel or organizations;
 - b) disclosure to the public; or
 - c) any purposes other than maintaining or improving safety; unless a principle of exception applies.

2.2 The DCA shall accord protection to safety data, safety information and related sources by ensuring that:

- a) the protection is specified based on the nature of safety data and safety information;
- b) a formal procedure to provide protection to safety data, safety information and related sources is established;
- c) safety data and safety information will not be used in a way different from the purposes for which they were collected, unless a principle of exception applies; and
- d) to the extent that a principle of exception applies, the use of safety data and safety information in disciplinary, civil, administrative and criminal proceedings will be carried out only under authoritative safeguards.

Note 1. The formal procedure may include that any person seeking disclosure of safety data or safety information will provide the justification for its release.

Note 2. Authoritative safeguards include legal limitations or restrictions such as protective orders, closed proceedings, in-camera review, and de-identification of data for the use or disclosure of safety information in judicial or administrative proceedings.

3. Principles of Exception

Exceptions to the protection of safety data, safety information and related sources shall only be granted when the DCA:

- a) determines that there are facts and circumstances reasonably indicating that the occurrence may have been caused by an act or omission considered, in accordance with national laws, to be conduct constituting gross negligence, wilful misconduct or criminal activity;
- b) after reviewing the safety data or safety information, determines that its release is necessary for the proper administration of justice, and that the benefits of its release outweigh the adverse domestic and international impact such release is likely to have on the future collection and availability of safety data and safety information; or
- c) after reviewing the safety data or safety information, determines that its release is necessary for maintaining or improving safety, and that the benefits of its release outweigh the adverse domestic and international impact such release is likely to have on the future collection and availability of safety data and safety information.

4. Public Disclosure

4.1 States that have right-to-know laws shall, in the context of requests made for public disclosure, create exceptions from public disclosure to ensure the continued confidentiality of voluntarily supplied safety data and safety information.

4.2. Where disclosure is made in accordance with section 3, the DCA shall ensure that:

- a) public disclosure of relevant personal information included in the safety data or safety information complies with applicable privacy laws; or
- b) public disclosure of the safety data or safety information is made in a de-identified, summarized or aggregate form.

5. Responsibility of the Custodian of Safety Data and Safety Information

The DCA shall ensure that each SDCPS has a designated custodian to apply the protection to safety data and safety information in accordance with applicable provisions of this appendix.

6. Protection of Recorded Data

- 6.1 The DCA shall, through national laws and regulations, provide specific measures of protection regarding the confidentiality and access by the public to ambient workplace recordings.
- 6.2 The DCA shall, through national laws and regulations, treat ambient workplace recordings required by national laws and regulations as privileged protected data subject to the principles of protection and exception as provided for in this appendix.