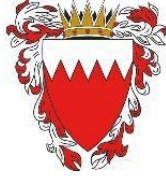


KINGDOM OF BAHRAIN
Ministry of Transportation
and Telecommunications



مملكة البحرين
وزارة المواصلات والاتصالات

ANTR VOL III, PART 19

SAFETY MANAGEMENT SYSTEM REGULATIONS

FOREWORD

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REVISION RECORD

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FOREWORD

1. The Kingdom of Bahrain Civil Aviation Affairs is known in these regulations as the “BCAA”.
2. ANTR Vol III, Part 19 addresses Safety Management Systems and includes Standards and Recommended Practices up to and including ICAO Annex 19, Amendment 1. It is referred to as “ANTR SMS”.
3. Unless otherwise stated, applicable Annex 19 definitions and abbreviations are used throughout this document. Refer also to ANTR Part 1 - Definitions for additional definitions and abbreviations.
4. The editing practices used in this document are as follows:
 - (a) ‘Shall’ is used to indicate a mandatory requirement.
 - (b) ‘Should’ is used to indicate a recommendation.
 - (c) ‘May’ is used to indicate discretion by the BCAA, the industry or the applicant, as appropriate.

Note: The use of the male gender implies the female gender.

5. Paragraphs and sub-paragraphs with new, amended and corrected text will be enclosed within square brackets until a subsequent amendment is issued.



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CHAPTER 1

DEFINITIONS & ABBREVIATIONS

Note: Refer to ANTR Part I for other definitions and abbreviations used in ANTR Vol III, Part 19 SMS.

1.1 Definitions

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.

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.

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.

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 analysed 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.

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.

1.2 Abbreviations

ATS	–	Air Traffic Services
BCAA	–	Bahrain Civil Aviation Affairs
CE	–	Critical Element
SARPs	–	Standards and Recommended Practices
SDCPS	–	Safety Data Collection and Processing Systems
SMS	–	Safety Management System
SSO	–	State Safety Oversight
SSP	–	State Safety Programme



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CHAPTER 2

APPLICABILITY

2.1 Applicability

These regulations shall be applicable to safety management functions related to, or in direct support of, the safe operation of aircraft.

Note 1: Safety management provisions for the BCAA are contained in Chapter 3 and relate to the State Safety Programme.

Note 2: Within the context of these regulations, the term “service provider” refers to those organisations listed in Chapter 3.3(b)(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 (SMS).

Note 4: No provision of these regulations is intended to transfer to the BCAA 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 these regulations, “responsibility” (singular) refers to “the BCAA 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 that may be delegated).



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CHAPTER 3

THE AUTHORITY SAFETY MANAGEMENT RESPONSIBILITIES

3.1 State safety programme (SSP)

The BCAA shall establish and maintain an SSP that is commensurate with the size and complexity of the BCAA's civil aviation system, but may delegate safety management-related functions and activities to another national aviation authority, Regional Safety Oversight Organisation (RSOO) or Regional Accident and Incident Investigation Organisation (RAIO).

Note: The BCAA retains responsibility for safety management-related functions and activities delegated to another national aviation authority, RSOO or RAIO.

3.2 State safety policy, objectives and resources

(a) Primary aviation legislation

- (1) The BCAA shall establish primary aviation legislation in accordance with Section 1 of Appendix 1.
- (2) The BCAA should establish an enforcement policy that specifies the conditions and circumstances under which service providers with a 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 the BCAA.

(b) Specific operating regulations

- (1) The BCAA shall establish specific operating regulations in accordance with section 2 of Appendix 1.
- (2) The BCAA shall periodically review specific operating regulations, guidance material and implementation policies to ensure they remain relevant and appropriate.

(c) State system and functions

- (1) The BCAA shall establish the system and functions in accordance with Section 3 of Appendix 1.
- (2) The BCAA should identify, define and document the requirements, obligations, functions and activities regarding the establishment and maintenance of the SSP, including the directives to plan, organise, develop, maintain, control and continuously improve the SSP in a manner that meets the BCAA's safety objectives.
- (3) The BCAA should establish a safety policy and safety objectives that reflect their commitment regarding safety and facilitate the promotion of a positive safety culture in the aviation community.
- (4) The safety policy and safety objectives should be published and periodically reviewed to ensure that they remain relevant and appropriate to the BCAA.

(d) Qualified technical personnel



The BCAA shall establish requirements for the qualification of technical personnel 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 BCAA.

- (e) Technical guidance, tools and provision of safety-critical information

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

3.3 State safety risk management

- (a) Licensing, certification, authorisation and approval obligations

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

- (b) Safety management system obligations

- (1) The BCAA shall require that the following service providers under their authority implement a SMS:

- (i) approved training organisations in accordance with ANTR FCL 1 that are exposed to safety risks related to aircraft operations during the provision of their services;
- (ii) operators of aeroplanes or helicopters authorised to conduct international commercial air transport, in accordance with ANTR OPS 1 or ANTR OPS 3, respectively;
- (iii) operators of remotely piloted aircraft systems authorised to conduct international operations in accordance with CAR 006;
- (iv) approved maintenance organisations providing services to operators of aeroplanes or helicopters engaged in international commercial air transport, in accordance with ANTR OPS 1 or ANTR OPS 3, respectively;
- (v) organisations responsible for the type design or manufacture of aircraft, engines or propellers; and
- (vi) air traffic services (ATS) providers.

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

- (2) The BCAA should ensure that safety performance indicators and targets established by service providers and operators are acceptable to the BCAA.
- (3) The BCAA shall establish criteria for international general aviation operators of large or turbojet aeroplanes in accordance with ANTR OPS 1 or ANTR OPS 3, respectively, to implement a SMS.

Note: Further provisions related to the implementation of SMS by international general aviation operators can be found in Chapter 4.



- (4) The criteria established by the BCAA in accordance (3) shall address the SMS framework and elements contained in Appendix 2.

(c) Accident and incident investigation

The BCAA shall establish a process for its role in the event of an accident or serious incident including protocols for the cooperation with aircraft accident investigation authorities in support of the management of safety in Bahrain.

(d) Hazard identification and safety risk assessment

- (1) The BCAA 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 on which to base preventive actions may be contained in the Final Reports of accidents and incidents.

- (2) The BCAA shall develop and maintain a process that ensures the assessment of safety risks associated with identified hazards.

(e) Management of safety risks

- (1) The BCAA shall establish mechanisms for the resolution of safety issues in accordance with Section 8 in Appendix 1.

- (2) The BCAA 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

(a) Surveillance obligations

- (1) The BCAA shall meet the surveillance obligations in accordance with Section 7 of Appendix 1.

Note: The surveillance of the service provider takes into consideration the safety performance as well as the size and complexity of its aviation products or services.

- (2) The BCAA should establish procedures to prioritise inspections, audits and surveys towards those areas of greater safety concern or need.

Note: Organisational risk profiles, outcomes of hazard identification and risk assessment, and surveillance outcomes may provide information for the prioritization of inspections, audits and surveys.



(3) The BCAA should periodically review the safety performance of an individual service provider.

(b) State safety performance

(1) The BCAA shall establish the acceptable level of safety performance to be achieved through their SSP.

Note: An acceptable level of safety performance for the BCAA can be achieved through the implementation and maintenance of the SSP as well as safety performance indicators and targets showing that safety is effectively managed and built on the foundation of implementation of existing safety-related SARPs.

(2) The BCAA 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 be used to support the prioritization of actions to manage safety risks.

(3) The BCAA should evaluate the effectiveness of their individual SSPs to maintain or continuously improve their overall level of safety performance.

3.5 State safety promotion

(a) Internal communication and dissemination of safety information

The BCAA should promote safety awareness and the sharing and exchange of safety information to support, within the State aviation organisations, the development of a positive safety culture that fosters an effective SSP.

(b) External communication and dissemination of safety information

The BCAA should promote safety awareness and the sharing and exchange of safety information with the aviation community to foster the maintenance and improvement of safety and to support the development of a positive safety culture.

Note 1: Refer to Chapter 5 for further details regarding safety information sharing and exchange.

Note 2: Promoting safety awareness could include identifying accessible safety training for the aviation community.



CHAPTER 4

SAFETY MANAGEMENT SYSTEM (SMS)

Note: An organisation may elect to extend one SMS across multiple service provider activities.

4.1 General

- (a) The SMS of a service provider shall:
- (1) be established in accordance with the framework elements contained in Appendix 2; and
 - (2) be commensurate with the size of the service provider and the complexity of its aviation products or services.
- (b) The BCAA shall ensure that the service provider develops a plan to facilitate SMS implementation.
- (c) The SMS of an approved training organisation, in accordance with ANTR FCL 1, that is exposed to safety risks related to aircraft operations during the provision of its services shall be made acceptable to the BCAA(s) responsible for the organisation's approval.
- (d) The SMS of a certified operator of aeroplanes or helicopters authorised to conduct international commercial air transport, in accordance with ANTR OPS 1 or ANTR OPS 3 respectively, shall be made acceptable to the BCAA.
- (e) The SMS of a certified remotely piloted aircraft systems authorised to conduct international operations in accordance with CAR 006 shall be made acceptable to the BCAA.
- (f) The SMS of an approved maintenance organisation providing services to operators of aeroplanes or helicopters engaged in international commercial air transport, in accordance with ANTR OPS 1 or ANTR OPS 3 respectively, shall be made acceptable to the BCAA(s) responsible for the organisation's approval.
- (g) The SMS of an ATS provider shall be made acceptable to the BCAA responsible for the provider's designation.

4.2 International general aviation — aeroplanes

The SMS of an international general aviation operator, conducting operations of large or turbojet aeroplanes in accordance with ANTR OPS 1 shall be commensurate with the size and complexity of the operation and meet the criteria established by the BCAA.

Note: Further provisions related to the criteria to be established by the BCAA can be found in Chapter 3.

4.3 Aerial work

- (a) The SMS of an aerial work operator, conducting operations of large or turbojet aeroplanes in accordance with ANTR OPS 1 shall be commensurate with the size and complexity of the operation and meet the criteria established by the BCAA.



- (b) The SMS of an aerial work operator, conducting operations of helicopters above 3175 kg MCTOM in accordance with ANTR OPS 3, shall be commensurate with the size and complexity of the operation and meet the criteria established by the BCAA.
- (c) The SMS of an aerial work operator, conducting the transportation of marine pilots by helicopter in accordance with ANTR OPS 1 or ANTR OPS 3 respectively, shall be commensurate with the size and complexity of the operation and meet the criteria established by the BCAA.



CHAPTER 5

SAFETY DATA AND SAFETY INFORMATION COLLECTION, ANALYSIS, PROTECTION,
SHARING AND EXCHANGE

Note: The objective of this Subpart 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

- (a) The BCAA 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 the BCAA or aviation service providers;
- (c) mandatory safety reporting systems;
- (d) voluntary safety reporting systems; and
- (e) self-disclosure reporting systems, including automatic data capture systems, as well as manual data capture systems.

Note 2: The term “safety database” may refer to a single or multiple database(s).

Note 3: SDCPS may include inputs from the BCAA, industry and public sources, and may be based on reactive and proactive methods of safety data and safety information collection.

- (b) The BCAA shall establish a mandatory safety reporting system that includes the reporting of incidents.
- (c) The BCAA shall apply, as part of its State Safety Programme, basic safety management principles to the medical assessment process of licence holders that as a minimum includes;
 - (1) routine analysis of in-flight incapacitation events and medical findings during medical assessments to identify areas of increased medical risk; and
 - (2) continuous re-evaluation of the medical assessment process to concentrate on identified areas of increased medical risk.
- (d) The BCAA shall establish a voluntary safety reporting system to collect safety data and safety information not captured by mandatory safety reporting systems.
- (e) The BCAA authorities responsible for the implementation of the SSP should have access to the SDCPS to support their safety responsibilities, in accordance with the principles in Appendix 3.

Note: The BCAA authorities responsible for the implementation of the SSP include accident investigation authorities.



- (f) The safety database should use standardized taxonomy to facilitate safety information sharing and exchange.

5.2 Safety data and safety information analysis

- (a) The BCAA shall establish and maintain a process to analyse the safety data and safety information from the SDCPS and associated safety databases.

Note 1: Specific provisions for the identification of hazards as part of their safety risk management and safety assurance processes can be found in Chapter 3.

Note 2: The purpose of the safety data and safety information analysis performed by the BCAA is to identify systemic and cross-cutting hazards that might not otherwise be identified by the safety data analysis processes of individual service providers and operators.

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

5.3 Safety data and safety information protection

- (a) The BCAA shall accord protection to safety data captured by, and safety information derived from, voluntary safety reporting systems and related sources in accordance with Appendix 3.

Note: Sources include individuals and organisations.

- (b) The BCAA should extend the protection referred to in paragraph (c) to safety data captured by, and safety information derived from, mandatory safety reporting system and related sources.

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

- (c) Subject to 5.3(a) and (b), the BCAA shall not make available or use safety data or safety information collected, stored or analysed in accordance with 5.1 or 5.2 for purposes other than maintaining or improving safety, unless the competent authority determines, in accordance with Appendix 3, that a principle of exception applies.

- (d) Notwithstanding 5.3(c), the BCAA shall not be prevented from using safety data or safety information to take any preventive, corrective or remedial action that is necessary to maintain or improve aviation safety.

Note: Specific provision aimed at ensuring that there is no overlap with the protection of accident investigation records is contained in Appendix 3, 1.2.

- (e) The BCAA shall take necessary measures, including the promotion of a positive safety culture, to encourage safety reporting through the systems referred to in 5.1(b) and (c).

- (f) The BCAA should facilitate and promote safety reporting by adjusting their applicable laws, regulations and policies, as necessary.

- (g) In support of the determination referred to in 5.3(c), the BCAA should institute and make use of appropriate advance arrangements between the appropriate authorities and those BCAA bodies entrusted with aviation safety and those entrusted with the administration of justice. Such arrangements should take into account the principles specified in Appendix 3.



Note: These arrangements may be formalized through legislation, protocols, agreements or memoranda of understanding.

5.4 Safety information sharing and exchange

Note: Sharing refers to giving, while exchange refers to giving and receiving in return.

- (a) If the BCAA, in the analysis of the information contained in its SDCPS, identifies safety matters considered to be of interest to other States, the BCAA shall forward such safety information to them as soon as possible. Prior to sharing such information, the BCAA shall agree on the level of protection and conditions on which safety information will be shared. The level of protection and conditions shall be in line with Appendix 3.
- (b) The BCAA shall promote the establishment of safety information sharing or exchange networks among users of the aviation system, and facilitate the sharing and exchange of safety information, unless national law provides otherwise.



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APPENDIX 1

STATE SAFETY OVERSIGHT (SSO) SYSTEM CRITICAL ELEMENTS (CEs)

Note 1: 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 the BCAA as separate entities, such as Airport Authorities, ATS Authorities and Meteorological Authorities.

Note 2: 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 safety management activities.

1. Primary aviation legislation (CE-1)

- 1.1 The BCAA shall promulgate a comprehensive and effective aviation law, commensurate with the size and complexity of their 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.

Note: This includes ensuring that the aviation law remains relevant and appropriate to the BCAA.

- 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 organisations performing an aviation activity.

2. Specific operating regulations (CE-2)

The BCAA shall promulgate regulations 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 instructions, rules, edicts, directives, sets of laws, requirements, policies and orders.

3. State system and functions (CE-3)

- 3.1 The BCAA shall establish relevant authorities or agencies, as appropriate, supported by sufficient and qualified personnel and provided with adequate financial resources for the management of safety.
- 3.2 The BCAA authorities or agencies shall have the stated safety functions and objectives to fulfil their safety management responsibility.

Note: This includes the participation of the aviation organisations in specific activities related to the management of safety in Bahrain, and the establishment of the roles, responsibilities and relationships of such organisations.

- 3.3 The BCAA should take necessary measures, such as remuneration and conditions of service, to ensure that qualified personnel performing safety oversight functions are recruited and retained.



3.4 The BCAA shall ensure that personnel performing safety oversight functions are 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 The BCAA should use a methodology to determine their staffing requirements for personnel performing safety oversight functions, taking into account the size and complexity of the aviation activities in their State.

4. Qualified technical personnel (CE-4)

4.1 The BCAA shall establish minimum qualification requirements for the technical personnel performing safety-related functions and provide for appropriate initial and recurrent training to maintain and enhance their competence at the desired level.

4.2 The BCAA shall implement a system for the maintenance of training records for technical personnel.

5. Technical guidance, tools and provision of safety-critical information (CE-5)

5.1 The BCAA shall provide appropriate facilities, comprehensive and up-to-date technical guidance material and procedures, safety-critical information, tools and equipment, and transportation means, as applicable, 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 BCAA shall provide technical guidance to the aviation industry on the implementation of relevant regulations.

6. Licensing, certification, authorisation and approval obligations (CE-6)

The BCAA shall implement documented processes and procedures to ensure that individuals and organisations performing an aviation activity meet the established requirements before they are allowed to exercise the privileges of a licence, certificate, authorisation or approval to conduct the relevant aviation activity.

7. Surveillance obligations (CE-7)

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

8. Resolution of safety issues (CE-8)

8.1 The BCAA shall use a documented process to take appropriate actions, up to and including enforcement measures, to resolve identified safety issues.

8.2 The BCAA shall ensure that identified safety issues are resolved in a timely manner through a system which monitors and records progress, including actions taken by individuals and organisations performing an aviation activity in resolving such issues.



APPENDIX 2

FRAMEWORK FOR A SAFETY MANAGEMENT SYSTEM (SMS)

Note: In the context of this appendix as it relates to service providers, an “accountability” refers to an “obligation” that may not be delegated, and “responsibilities” refers to functions and activities that may be delegated.

This Appendix specifies the framework for the implementation and maintenance of a SMS. The framework comprises the following 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
5. Safety policy and objectives



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 organisational 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 organisation;
- (f) be communicated, with visible endorsement, throughout the organisation; 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 organisation; 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 organisation for the implementation and maintenance of an effective SMS;
- (b) clearly define lines of safety accountability throughout the organisation, 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 organisation;
- (d) document and communicate safety accountability, responsibilities and authorities throughout the organisation; 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 organisations 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 a SMS manual that describes its:

- (a) safety policy and objectives;
- (b) SMS requirements;
- (c) SMS processes and procedures; and
- (d) 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 organisational 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.



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

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 organisation 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 organisation'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 communication

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, the BCAA has 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 the BCAA 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 BCAA shall, through national laws, regulations and policies protecting safety data, safety information and related sources, ensure 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: The protection of safety data, safety information and related sources is not intended to interfere with the proper administration of justice or with maintaining or improving safety.

1.2 When an investigation has been instituted, accident and incident investigation records provided by the aircraft accident investigation authorities shall be subject to the protections accorded therein instead of the protections accorded by this regulation.

2. Principles of protection

2.1 The BCAA shall ensure that safety data or safety information is not used for:

- (a) disciplinary, civil, administrative and criminal proceedings against employees, operational personnel or organisations;



- (b) disclosure to the public; or
- (c) any purposes other than maintaining or improving safety; unless a principle of exception applies.

2.2 The BCAA 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 competent authority:

- (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.

Note 1: In administering the decision, the competent authority takes into account the consent of the source of the safety data and safety information.

Note 2: Different competent authorities may be designated for different circumstances. The competent authority could include, but is not limited to, judicial authorities or those otherwise entrusted with aviation responsibilities designated in accordance with national law.



4. Public disclosure

- 4.1 The BCAA, having 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.

Note: Laws, regulations and policies commonly referred to as right-to-know laws (freedom-of-information, open records, or sunshine laws) allow for public access to information held by the BCAA.

- 4.2 Where disclosure is made in accordance with Section 3, the BCAA 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 BCAA 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.

Note: The “custodian” may refer to an individual or organisation.

6. Protection of recorded data

Note 1: Ambient workplace recordings required by national laws, for example, cockpit voice recorders (CVRs) or recordings of background communication and the aural environment at air traffic controller work stations may be perceived as constituting an invasion of privacy for operational personnel that other professions are not exposed to.

Note 2: Provisions on the protection of flight recorder recordings and recordings from air traffic control units during investigations instituted under ICAO Annex 13 are contained therein. Provisions on the protection of flight recorder recordings during normal operations are contained in ANTR OPS 1.160 or ANTR OPS 3.160, as applicable.

- 6.1 The BCAA shall provide specific measures of protection regarding the confidentiality and access by the public to ambient workplace recordings.
- 6.2 The BCAA shall 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.



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