# **BELIZE DEPARTMENT OF CIVIL AVIATION**



# BELIZE CIVIL AVIATION REGULATIONS SAFETY MANAGEMENT SYSTEMS

**BCAR-19** 

Issue: Original Revision: 0

Date: 15/12/2025

**BCAR - 19** 

# **Issue and Revision System**

REVISION TO THIS REGULATION WILL BE INDICATED BY A VERTICAL BAR ON THE LEFT SIDE, IN FRONT OF THE LINE, SECTION, OR FIGURE THAT HAS BEEN AFFECTED. AN ISSUE WILL BE THE REPLACEMENT OF THE COMPLETE DOCUMENT.

REVISIONS MUST BE RECORD, OF REVISIONS TABLE OF THIS DOCUMENT INDICATING THE RESPECTIVE NUMBER, DATE IT WAS ENTERED AND SIGNED BY THE PERSON ENTERNG THE REVISION.



**BCAR - 19** 

# **Records of Revision**

Number	Date entered:	Entered by:
0	30 December 2025	BDCA
	<b>▼</b>	

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#### **Preamble**

The original issue of the Belize Civil Aviation Regulation (BCAR) 19 Safety Management which is based on the best standards and recommended practices of Annex 19, to the Convention on International Civil Aviation; Safety Management, third edition published in November 2025 amendment two. For the service providers identified in BCAR 19.001(a), there will be a transition period of 180 (One hundred and eighty) days after its publication.

The risk management systems were created and are described to deal with situations of risk that can cause damage to infrastructure, injury to personnel, and significantly reduced skills of operating personnel to complete tasks safely. In the case of a ground training center that only provides theoretical training to your students, it is virtually impossible to generate these kinds of risks while staying in a classroom. In the case of the practices that follow the theoretical training, the possible dangers that could generate are captured by the safety management system of the service provider that offers its facilities and equipment for this purpose.



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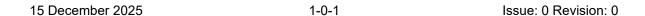
# **SECTION 1- REQUIREMENTS**

### 1 PRESENTATION

- 1.1 Section 1 of BCAR 19 is presented in one column on loose pages. Each page is identified by the date of issue or amendment under which it is amended or issued.
- 1.2 BCAR 19 is written using Arial 10. Explanatory notes are not considered requirements. In case they exist, they will be written in Arial 8.

# 2 GENERAL

2.1 Section 1 contains the requirements for Safety Management Systems in compliance with Annex 19 Third Edition amendment 2 to the Convention on International Civil Aviation and the requirements of national regulations.





# SUPART A GENERAL

### **BCAR 19.001 APPLICABILITY**

- (a) This regulation is applicable to the following service providers, but not limited to, that are required to implement an SMS:
  - (1) Approved training organizations in accordance with Belize Civil Aviation Regulations that are exposed to safety risks related to aircraft operations during the provisions of their services.
  - (2) Certified operators of aeroplanes or helicopters authorized to conduct international commercial air transport, in accordance with Belize Civil Aviation Regulations.
  - (3) Operators holding a remotely piloted aircraft system (RPAS) operator certificate and authorized to conduct international operations in accordance with Belize Civil Aviation Regulations.
  - (4) Approved maintenance organizations providing services to operators of aeroplanes or helicopters engaged in international commercial air transport, in accordance with Belize Civil Aviation Regulations respectively.
  - (5) Approved maintenance organizations providing services to operators authorized to conduct international RPAS operations in accordance with Belize Civil Aviation Regulations.
  - (6) Organizations responsible for the type design or manufacture of aircraft, engines or propellers.
  - (7) Air traffic services (ATS) providers in accordance with Belize Civil Aviation Regulations.
  - (8) Operators of certified aerodromes or certified heliports in accordance with Belize Civil Aviation Regulations.
  - (9) International general aviation operators of large or turbojet aircraft in accordance with Belize Civil Aviation Regulations.
- (b) All service providers listed in BCAR-19.001 (a) are required to establish and maintain an SMS up to date, depending on the size and complexity of the organization or aviation services in the form and manner acceptable to the Belize Department of Civil Aviation, through the State Safety Programme (SSP).
- (c) This regulation establishes the minimum acceptable requirements for an SMS from a service provider, which must include processes, procedures and activities related to aviation safety, however, the service provider may establish a greater scope for its SMS.



- (d) The service provider must include all contract services under the scope of its SMS.
- (e) The acceptance of a service provider's SMS is not exempted to comply with any other program or system required by the Civil Aviation Act Chapter 239 and/or any of the Belize Civil Aviation Regulations (BCARs) applicable.
- (f) Organizations with multiple service providers certifications may choose to include them all under the scope of one SMS to capitalize on the benefits of SMS and better address interface aspects.

#### **BCAR 19.005 EFFECTIVENESS AND EXEMPTIONS**

- (a) This regulation will enter into force immediately after being promulgated. For existing service providers established in BCAR 19.001 (a), there will be a transition period of one hundred and eighty (180) days after its publication.
- (b) The provisions in BCAR 19 (a) (3) (4) (5) and (8) become applicable on 26 November 2026.
- (c) There are no exemptions to this regulation in accordance with BCAR 19.001 (c) where service providers must meet the minimum acceptable requirements established in this regulation.

### BCAR 19.010 DEFINITIONS AND ACRONYMS

Refer to BCAR 05 Definitions and Units of Measurements

## **BCAR 19.015 INSPECTION AUTHORITY**

- (a) The inspectors and personnel authorized by the BDCA, when carrying out their tasks can:
  - (1) Conduct SMS audits and inspections with access to all relevant documentations.
  - (2) Carry out evaluations of the SMS implementation phases.

# **BCAR 19.020 SANCTIONS**

Failure to comply with the requirements of this regulation by any service provider described in BCAR 19.001(a), will be subject to the sanctions established in S.I. No. 126 of 2009.



# SUBPART B SAFETY MANAGEMENT SYSTEM (SMS)

### **BCAR 19.025 GENERAL**

- (a) The SMS of each service provider addressed in BCAR 19.001 (a) must:
  - (1) be established and managed in accordance with the framework elements contained in BCAR 19.040;
  - (2) cover a defined scope of products and services; and
  - (3) be supported by a system description, including the identification of relevant organizational interfaces.
- (b) The BDCA shall ensure that each service provider addressed in BCAR 19.001 (a) develops a plan to facilitate SMS Implementation.

#### **BCAR 19.030 SMS ACCEPTABILITY**

- (a) The SMS of each service provider listed in BCAR 19.001 (a) must be accepted by the BDCA.
- (b) The acceptance of the SMS must be in accordance with the certificate/authorization granted by the BDCA.

### BCAR 19.035 OTHER SMS REGULATORY APPROACHES

(a) The SMS of an international general aviation operator, conducting operations of large or turbojet aeroplanes in accordance with BCAR OPS 2, must be established and managed to meet the criteria established by the State of Registry.

# **BCAR 19.040 SMS COMPONENTS AND ELEMENTS**

Each service provider described in BCAR 19.001 (a) must establish an SMS with the following four components and their twelve elements as the minimum requirements for the SMS implementation and maintenance:

Components	Elements	
1. Safety Policy, Objectives	1.1 Management commitment	
and Resources (SMS	1.2 Safety accountability and responsibilities	
Component 1)	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	
(Component 2)	2.2 Safety risk assessment and mitigation	
	3.1 Safety performance measurement and monitoring	



3. Safety Assurance	3.2 The management of change	
(Component 3)	3.3 Continual improvement of the SMS	
4. Safety Promotion	4.1 Training and education	
(Component 4)	4.2 Safety communication	





# SUBPART C COMPONENT 1: SAFETY POLICY, OBJECTIVES & RESOURCES

#### **BCAR 19.045 MANAGEMENT COMMITMENT**

- (a) The service providers shall define its safety policy in accordance with national and international requirements. The safety policy should be appropriate to the size, scope and complexity of the operation and defines its commitment to managing safety throughout the organization.
- (b) The Safety Policy shall include a commitment to at least:
  - (1) reflect organizational commitment regarding safety, including the promotion of a positive safety culture
  - include a clear statement about the provision of the necessary resources for the implementation of the safety policy.
  - include safety reporting procedures that defines requirements for employee reporting of safety hazards or issues.
  - include an emergency response plan that provides for the safe transition from normal to emergency operations.
  - (5) 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.
  - (6) be signed by the accountable executive of the organization.
  - (7) be communicated, with visible endorsement, throughout the organization.
  - (8) be periodically reviewed to ensure it remains relevant and appropriate to the organization.
  - (9) continuously improve the level of safety performance.
  - (10) promote and maintain a positive safety culture within the organization.
  - (11) comply with all applicable regulatory requirements.
  - (12) provide the necessary resources to deliver a safe product or service.
  - (13) ensure safety is a primary responsibility of all managers.
  - ensure it is understood, implemented and maintained at all levels of the organization.



- (15) a commitment of the service provider to fulfil the organization's safety objectives.
- (c) Taking due account of its safety policy, the service provider shall establish safety objectives to define what it aims to achieve in respect of safety outcomes. The Safety objectives must:
  - (1) form the basis for safety performance measurement and monitoring
  - (2) reflect the service provider's commitment to maintain or continually improve the overall effectiveness of the SMS
  - (3) be communicated throughout the organization
  - (4) must be periodically reviewed to ensure they remain relevant and appropriate to the service provider current.

### BCAR 19.050 SAFETY ACCOUNTABILITY AND RESPONSIBILITIES

- (a) Each service provider must identify and appoint an accountable executive who, irrespective of other functions, is accountable on behalf of the organization for the implementation and maintenance of an effective SMS.
- (b) Each service provider must clearly define lines of safety accountability throughout the organization, including a direct accountability for safety on the part of senior management.
- (c) Each service provider must identify responsibilities of all members of management, irrespective of other functions, as well as of employees with respect to the safety performance of the organization, hazard identification and safety risk management, assuring the effectiveness of safety risk controls, promoting safety, and among other needs for improvement.
- (d) Each service provider must document and communicate safety accountability, responsibilities and authorities throughout the organization.
- (e) Each service provider must define the levels of management with authority to make decisions regarding safety risk tolerability.
- (f) The accountable executive should ensure there is an appropriate organizational structure to manage and operate the SMS.
- (g) The accountable executive cannot delegate accountability for the system nor can decisions regarding safety risks be delegated, for example, the following safety accountabilities cannot be delegated:
  - (1) ensure safety policies are appropriate and communicated;
  - (2) ensuring necessary allocation of resources (financing, personnel, training, acquisition); and
  - (3) setting of the acceptable safety risk limits and resourcing of necessary controls



- (h) The accountable executive must have the following accountabilities:
  - provide enough financial and human resources for the proper implementation of an effective SMS;
  - (2) promote a positive safety culture;
  - (3) establish and promote the safety policy;
  - (4) establish the organization's safety objectives;
  - (5) ensure the SMS is properly implemented and performing to requirements; and
  - (6) see to the continuous improvement of the SMS

# **BCAR 19.055 APPOINTMENT OF KEY SAFETY PERSONNEL**

Each service provider shall designate key personnel consisting of an accountable executive, safety manager, and relevant safety management groups.

- (a) The designation and responsibilities of the Accountable Executive:
  - (1) The service provider must appoint an accountable executive who, irrespective of other functions, satisfies the following:
    - (i) is the final authority over operations authorized to be conducted.
    - (ii) full control of the financial resources required for the operations to be conducted
    - (iii) full control of the human resources required for the operations authorized to be conducted.
    - (iv) retains ultimate responsibility for the safety performance of the operations conducted.
    - (v) responsible for ensuring appropriate actions are taken to address safety issues and safety risks.
    - (vi) responsible for responding to accidents and incidents.
    - (vii) promotes the safety policy and safety objectives that instils safety as a core organizational value.
  - (2) The accountable executive is responsible for accomplishing the following:



 ensure that the SMS is properly implemented and performing in all areas of the service providers organization.

- (ii) develop and sign the safety policy of the service provider.
- (iii) communicate the safety policy throughout the service providers organization.
- (iv) regularly review the service providers safety policy to ensure it remains relevant and appropriate to the service provider.
- (v) regularly review the safety performance of the service provider organization and direct actions necessary to address substandard safety performance.
- (3) The service provider shall submit to the Director of Civil Aviation, the proposal of the person to be appointed as the accountable executive for acceptance, who must meet at least the following requirements:
  - (i) must have a level of authority within the service provider's organization such as President, Chief Executive Officer, General Manager, Chairman of the Board of Directors, an owner, or a position similar in importance in decision making; and
  - (ii) have received an induction in accordance with BCAR 19.045 and 19.050 regarding accountability and responsibilities.
- (4) The accountable executive, upon submitting an initial designation request to the Director of Civil Aviation, must have an SMS course with an issue date of no more than two years and must prove that the SMS training comprises the four components and their twelve elements as described in BCAR 19.035.
- (5) The recurrent training of the accountable executive already accepted for an organization must be completed within a period of no more than two years.
- (b) The designation and responsibilities of the Safety Manager:
  - (1) Each service provider shall appoint a competent person to be the Safety Manager, who must be responsible for the effective implementation and maintenance of the SMS.
  - (2) The safety manager is responsible for the following but are not limited to:
    - (i) coordinate implementation, maintenance, and integration of the SMS throughout the service providers organization;
    - (ii) facilitate hazard identification and safety risk analysis;
    - (iii) monitor the effectiveness of safety risk controls;
    - (iv) ensure safety promotion throughout the organization as required on Subpart F of this regulation;



- regularly report to the accountable executive on the performance of the SMS and on any need for improvement;
- (vi) manage the SMS implementation plan on behalf of the accountable executive (upon initial implementation);
- (vii) monitor corrective actions and evaluate their results;
- (viii) maintain SMS documentation and records;
- (ix) plan and facilitate staff safety training;
- (x) provide independent advice on safety matters to managers, employees, and contractors at all levels;
- (xi) monitor safety concerns in the aviation industry and their perceived impact on the organization's operations aimed at product and service delivery; and
- (xii) coordinate and communicate (on behalf of the accountable executive) with the Belize Department of Civil Aviation and other State authorities as necessary on issues related to safety.
- (3) The service provider shall submit to the Director of Civil Aviation the proposal of the person to be appointed as the safety manager for acceptance. The appointment of safety manager may be accepted or not if the person meets at least the following criteria:
  - (i) have received the induction about the responsibilities of the Safety Manager before assuming the position.
  - (ii) have operational knowledge and experience regarding the functions and product/service provided by the service provider organization.
  - (iii) have knowledge of the principles and practices of safety management/quality management.
  - (iv) have received previous training on safety risk management
  - (v) have received previous training on how to analyze the results or perform safety audits of any aspect of his organization's activities.
  - (vi) technical background to understand the systems that support operations, or the product/service provided.
  - (vii) analytical and problem-solving skills.
  - (viii) oral and written communication skills.
  - (ix) an understanding of human factors.



- (x) project management skills.
- (xi) interpersonal skills
- (xii) has no other duties that may conflict with his or her Safety Manager responsibilities, such as the delivery of the organization's products and services.
- (xiii) has direct relationship and communication with all the Accountable Executive.
- (xiv) has direct relationship and communication with the organization's staff.
- (4) The Safety Manager, upon submitting an initial appointment request to the Director of Civil Aviation, must have received an SMS course with an issue date of no more than two years, and must prove that the SMS training comprises the four components and their twelve elements as described in BCAR 19.040.
- (5) The recurrent training of the Safety Manager already accepted for an organization must be completed within a period of no more than two years.
- (c) Safety management groups
  - (1) Each service provider shall, as part of the functional responsibilities and accountabilities of safety, establish appropriate safety committees that support the SMS functions across the organization, such as the safety review board (SRB) and a safety action group (SAG).
  - (2) The safety review board (SRB) is the highest-level safety committee which is responsible to strategically deal with high-level issues related to safety policy, resource allocation, and organizational performance. The SRB includes the accountable executive and senior managers along with the safety manager participating in an advisory capacity. The SRB must:
    - (i) be headed by the accountable executive;
    - (ii) meet with a defined periodicity;
    - (iii) monitor the effectiveness of the SMS;
    - (iv) monitor the timely response in implementing necessary safety risk control actions:
    - (v) monitor safety performance against the organization's safety policy and objectives;
    - (vi) monitor the overall effectiveness of safety risk mitigation strategies;



- (vii) ensure the effectiveness of the organization's safety management processes which support the declared organizational priority of safety management and promotion of safety across the organization.
- (3) The safety action group (SAG) is responsible for coordinating the implementation and monitoring of safety strategies throughout the organization. The SAG must:
  - (i) be chaired by a designated manager;
  - (ii) include managers and front-line personnel;
  - (iii) monitor safety performance within functional areas of the organization
  - (iv) ensure that appropriate safety risk management activities are carried out;
  - (v) review available safety data and identify the implementation of appropriate safety risk control strategies and ensure employee feedback is provided;
  - (vi) assess the safety impact of changes (introduction of operational changes or new technologies);
  - (vii) coordinate the implementation of any actions related to safety risk controls and ensure that actions are taken promptly; and
  - (viii) review the effectiveness of specific safety risk controls.
- (4) Notwithstanding sections (1) and (3), where the service provider size and complexity is relatively limited can delegate the functions described in section (3) to the SRB in a manner acceptable to the Director of Civil Aviation.

# **BCAR 19.060 COORDINATION OF EMERGENCY RESPONSE PLANNING**

- (a) The service provider is required to establish and maintain an emergency response plan for accidents and incidents in aircraft operations and other aviation emergencies, which must be acceptable to the Director of Civil Aviation.
- (b) The service provider shall ensure that the response plan is properly coordinated with the emergency response plan of those organizations it must interface during the provision of its products and services.
- (c) The service provider shall ensure that the emergency response plan contains:
  - (1) designation of who will lead and who will be assigned to the response team
  - (2) a define and assigned emergency responsibilities and actions of the various organizations/stakeholders and key personnel involved in



(3) define proper procedures for the organizations and key personnel involved in to take into account during an emergency

- (4) an orderly and efficient transition from normal to emergency operations and vice versa
- (5) proper coordination efforts to deal with emergencies
- (6) procedures to carry out periodic tests through exercises, which will be at least once a year and must be in accordance with the size and complexity of the organizations.
- (7) proactive identification of all potential emergency events/scenarios and the corresponding mitigation measures
- (8) provide for the coordination of the actions to be taken in an emergency occurring at a specific location or in its vicinity affecting aviation safety.
- (9) identify agencies which could be of assistance in responding to an emergency
- (d) The service provider shall ensure that the content of the emergency response plan contains at least the following:
  - (1) list of designated people who will make up the emergency response team
  - (2) roles and responsibilities of personnel assigned to the emergency response team
  - (3) description of location and the conditions under which an emergency crisis management centre should operate
  - (4) procedures for receiving requests for information, especially during the first few days after a major accident
  - (5) procedures for the designation of a spokesperson to deal with the media
  - (6) procedures for accessing available resources, including financial authorizations for immediate activities
  - (7) procedures for the designation of the organization's representative for any official investigation undertaken by the BDCA and Accident and Incident Investigation Unit (AIIU).
  - (8) description of a calling plan for key personnel
  - (9) checklists and procedures relevant to emergency situations

# **BCAR 19.065 SMS DOCUMENTATION**

(a) The service provider must develop and maintain SMS documentation that describes its:



- (1) safety policy, objectives and resources
- (2) SMS requirements
- (3) SMS processes and procedures
  - i. SMS documentation
  - ii. Coordination of emergency response planning
  - iii. Hazard identification
  - iv. Safety risk assessment and mitigation
  - v. Monitoring and measurement of safety performance
  - vi. Change management
  - vii. Continuous improvement of SMS
  - viii. Training and education
  - ix. Safety communication
- (4) accountability, responsibilities and authorities for SMS process and procedures
- (5) control of contracted activities
- (6) key personnel
- (7) safety performance indicators (high and low impact)
- (b) The service provider must develop and maintain SMS operational records as part of its SMS documentation.
- (c) The SMS documentation must include a top level "SMS Manual" which includes a detailed description of the service provider's policies, processes and procedures including:
  - (1) Safety policy and safety objectives
  - (2) reference to any applicable regulatory SMS requirements
  - (3) system description
  - (4) safety accountabilities and key safety personnel
  - (5) voluntary and mandatory safety reporting system processes and procedures
  - (6) hazard identification and safety risk management processes and procedures



- (7) safety investigation procedures
- (8) procedures for establishing and monitoring safety performance indicators
- (9) SMS training processes and procedures and communication
- (10)safety communication processes and procedures
- (11)internal audit processes
- (12)management of change procedures
- (13)SMS documentation management procedures, and
- (14) where applicable, coordination of emergency response planning
- (d) The SMS documentation also includes the compilation and maintenance of operational records substantiating the existence and ongoing operation of the SMS. Operational records are the output of the SMS processes and procedures such as the SRM and safety assurance activities.
- (e) SMS operational records should be stored and kept in accordance with existing retention periods, which includes:
  - (1) hazards register and hazard/safety reports
  - (2) SPIs and related charts
  - (3) record of completed safety risk assessments
  - (4) SMS internal review or audit records
  - (5) internal audit records
  - (6) records of SMS/safety training records
  - (7) SMS/safety committee meetings minutes
  - (8) SMS implementation plan (during the initial phase); and
  - (9) gap analysis to support implementation plan
- (f) The service provider must ensure that SMS records are maintained in way that they are easily accessible, recoverable and protected against damage, deterioration and loss.
- (g) The service provider must define procedures for controlling documents and records.



# SUBPART D COMPONENT 2: SAFETY RISK MANAGEMENT

#### **BCAR 19.070 GENERAL**

(a) Service providers shall ensure they are managing their safety risks which is known as safety risk management (SRM) which includes hazard identification, safety risk assessment, and safety risk mitigation.

#### **BCAR 19.075 HAZARD IDENTIFICATION**

- (a) The service provider shall develop and maintain a process to identify hazards, including hazards related to internal and external interfaces, associated with its aviation products and services.
- (b) Hazard identification shall be based on a combination of reactive, proactive and predictive methods of safety data collection.
- (c) Internal sources where the service provider can identify hazards are listed below but not limited to:
  - (1) Normal operations monitoring- this uses observational techniques to monitor the day-to-day operations and activities such as line operations safety audit (LOSA).
  - (2) Automated monitoring systems- this uses automated recording systems to monitor parameters that can be analyzed such as flight data monitoring (FDM).
  - (3) Voluntary and mandatory safety reporting systems- this provides everyone, including staff from external organizations, with opportunities to report hazards and other safety issues to the organization.
  - (4) Audits- can be used to identify hazards in the task or process being audited. These should also be coordinated with organizational changes to identify hazards related to the implementation of the change.
  - (5) Feedback from training- training that is interactive (two way) can facilitate identification of new hazards from participants.
  - (6) Service provider safety investigations- hazards identified in internal safety investigations and follow-up reports on accidents/incidents.
- (d) External sources where the service provider can identify hazards are listed below but not limited to:
  - (1) Aviation accident reports reviewing accidents reports may be related to accidents in the same State or to a similar aircraft type, region or operational environment.



- (2) State mandatory and voluntary safety reporting systems- some States provide summaries of the safety reports received from service providers.
- (3) State oversight audits and third-party audits external audits can sometimes identify hazards. These may be documents as an unidentified hazard or captured less obviously within an audit finding.
- (4) Trade associations and information exchange systems many trade associations and industry groups are able to share safety data that may include identified hazards.
- (e) All service providers shall establish procedures for a safety reporting system and develop taxonomies that cover the type(s) of operation that best fit their organization.

#### **BCAR 19.080 SAFETY RISK ASSESSMENT AND MITIGATION**

- (a) The service provider shall develop and maintain a process that ensures analysis, assessment and control of the safety risks associated with identified hazards.
- (b) Each service provider shall define which hierarchical levels will have, within internal management, the authority to make decisions regarding the tolerability of risk affecting safety.
- (c) Every service provider shall define and implement safety controls for each risk determined to be tolerable or another similar risk level, in accordance with the tolerability criteria.

# **BCAR 19.085 DOCUMENTATION OF HAZARDS IDENTIFICATION**

(a) Each service provider shall maintain one or more documented procedures for the identification of hazards and for the assessment and mitigation of safety risks associated with hazards identified during the provision of its aviation products or services.

# SUBPART E COMPONENT 3: SAFETY ASSURANCE

### **BCAR 19.090 SAFETY PERFORMANCE MEASUREMENT AND MONITORING**

- (a) The service provider shall establish means to:
  - (1) measure and monitor the safety performance of the organization
  - (2) measure and monitor the progress towards achieving its safety objectives; and
  - (3) validate the effectiveness of safety risk controls.
- (b) The safety performance of the service provider shall be verified against the SMS safety performance indicators, which shall:
  - (1) be related to the safety objectives of the organization
  - (2) include safety performance goals, alerts and action plans
  - (3) include a range of high-impact and low-impact indicators
- (c) The safety performance measurement and monitoring shall include at least the following:
  - (1) Safety reports
  - (2) Safety studies
  - (3) Safety reviews
  - (4) Safety audits
  - (5) Internal safety investigations
  - (6) Operational data collection systems such as FDA
- (d) The service provider shall conduct internal audits by persons or departments independent of the functions being audited to assess the following:
  - (1) effectiveness of the SMS
  - (2) effectiveness corrective actions
  - (3) effectiveness safety risk controls
  - (4) compliance with regulations
  - (5) compliance policies, processes and procedures; and
  - (6) to identify areas for potential improvement.



#### **BCAR 19.095 THE MANAGEMENT OF CHANGE**

- (a) The service provider shall develop and maintain a formal 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.
- (b) The service providers experience changes due to a number of factors including, but not limited to:
  - (1) organizational expansion or contraction
  - (2) business improvements that impact safety; these may result in changes to internal systems, processes or procedures that support the safe delivery of the products and services
  - (3) changes to the organization's operating environment
  - (4) changes to the SMS interfaces with external organizations
  - (5) external regulatory changes, economic changes and emerging risks
- (c) Changes may affect the effectiveness of existing safety risk controls. In addition, new hazards and related safety risks may be inadvertently introduced into an operation when change occurs.
- (d) The organization's management of change process should take into account the following considerations:
  - (1) Criticality
  - (2) Availability of subject matter experts
  - (3) availability of safety performance data and information
- (e) The management of change process should include the following activities:
  - (1) Understand and define the change
  - (2) Understand and define who and what it will affect
  - (3) Identify hazards related to the change and carry out a safety risk assessment
  - (4) Develop an action plan
  - (5) Sign off on the change
  - (6) Assurance plan

### **BCAR 19.100 CONTINUAL IMPROVEMENT OF THE SMS**

- (a) The service provider shall monitor and assess its SMS processes to maintain or continually improve the overall effectiveness of the SMS.
- (b) The service provider shall establish a process with defined procedures for the continuous improvement of its operations which includes:



(1) Proactive assessments of facilities, equipment, documentation and procedures to verify the effectiveness of safety risk control strategies

- (2) Proactive evaluation of the efficiency of individuals, to verify compliance with safety responsibilities
- (3) A reactive assessment to verify the effectiveness of risk control and mitigation systems, for instance: investigations of accidents, incidents, and significant events
- (4) A predictive evaluation which studies and analyses reactive and proactive processes and external elements, anticipating incidents and accidents.
- (c) The service provider shall aim to implement a variety of methods to determine its effectiveness, measure outputs as well as outcomes of the processes, and assess the information gathered through these activities, such as but not limited to the following:
  - (1) Audits
  - (2) Assessments
  - (3) Monitoring of occurrences
  - (4) Safety surveys
  - (5) Management reviews
  - (6) Evaluation of SPIs & SPTs
  - (7) Addressing lessons learnt
- (d) Each service provider shall maintain documented procedures for the safety performance monitoring and measurement, management of change, and continuous improvement of the SMS.



# SUBPART F COMPONENT 4: SAFETY PROMOTION

# **BCAR 19.105 TRAINING AND EDUCATION**

- (a) Safety promotion encourages a positive safety culture and helps achieve the service provider's safety objectives through the combination of technical competence that is continually enhanced through training and education, effective communication, and information-sharing.
- (b) The service provider shall develop and maintain a safety training programme approved by the BDCA that ensures that personnel are trained and competent to perform their SMS duties.
- (c) The scope of the safety training programme shall be appropriate to each individual's involvement in the SMS.
- (d) There shall be specific safety training for the accountable executive and senior managers that includes:
  - (1) specific awareness training for new accountable executives and post holders on their SMS accountabilities and responsibilities;
  - (2) importance of compliance with national and organizational safety requirements;
  - (3) management commitment
  - (4) allocation of resources
  - (5) promotion of the safety policy and the SMS
  - (6) promotion of a positive safety culture
  - (7) effective interdepartmental safety communication
  - (8) safety objective, SPTs and alert levels
  - (9) disciplinary policy
- (e) The training programme shall include induction, initial and recurrent training requirements to maintain competencies.
- (f) The training program should include the following as a minimum:
  - (1) Organizational safety policies and safety objectives
  - (2) Safety roles and responsibilities
  - (3) Basic SRM principles
  - (4) Safety reporting systems



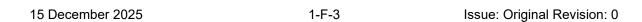
- (5) The organization's SMS processes and procedures
- (6) Human factors
- (7) Safety notification process
- (8) Safety assurance activities
- (9) Safety information communications lines
- (g) All service providers shall maintain records to prove the implementation of the training programme and must be reviewed on a regular basis to ensure that personnel, at all levels of the organization, maintain their competence to fulfill their safety roles.

#### **BCAR 19.110 SAFETY COMMUNICATION**

- (a) Each service provider shall establish and implement processes and procedures that facilitate effective two-way communication throughout all levels of the organization.
- (b) Each service provider shall develop and maintain a formal means for safety communication that:
  - (1) ensure personnel is aware of the SMS to a degree commensurate with their positions;
  - (2) conveys safety-critical information;
  - (3) explains why particular actions are taken to improve safety;
  - (4) explains why safety procedures are introduced or changed;
  - (5) raise awareness of new safety risk controls and corrective actions;
  - (6) provide information on new or amended safety procedures
  - (7) promote a positive safety culture and encourage personnel to identify and report hazards
  - (8) provide feedback to personnel submitting safety reports on what actions have been taken to address any concerns identified
- (c) The service provider shall use formal indirect means of safety communication which includes but is not limited to the following:
  - (1) Safety newsletters
  - (2) Notices
  - (3) Bulletins
  - (4) Briefings or training courses
  - (5) Website



- (6) Official publication
- (7) Posters/billboards
- (8) Intranet
- (9) lessons learned from investigations and case histories or experiences
- (d) Service providers shall assess the effectiveness of their safety communication by checking personnel have received and understood any safety critical information that has been distributed.
- (e) Safety promotion activities should be carried out throughout the life cycle of the SMS, not only at the beginning.





# SUBPART G PHASES OF THE IMPLEMENTATION AND ACCEPTANCE OF THE SMS

#### **BCAR 19.115 PHASE 1**

At this phase, all service providers must meet the requirements set out below, as well as establish the framework of responsibilities and accountability for the implementation of the SMS, which includes the following elements:

- (a) Management commitment and responsibility:
  - (1) Identify the Accountable Executive and the safety responsibilities of the managers;
  - (2) Identify the planning group within the organization responsible for implementing the SMS:
  - (3) Describe your organization type's system that contains at least the following information:
    - (i) The interactions of the system with other systems in the air transport system;
    - (ii) The functions of the system;
    - (iii) The considerations of human action required for the operation of the system;
    - (iv) The hardware components of the system;
    - (v) The software components of the system, including the procedures that define the guidelines for the operation and use of the system;
    - (vi) The operational environment; and
    - (vii) The products contracted and acquired.
  - (4) Define the scope and applicability of the SMS; and
  - (5) Perform a gap analysis of existing resources, systems, and current processes in the organization against national and international requirements for establishing SMS:
- (b) SMS documentation:
  - (1) Develop an SMS Implementation Plan that explains how the organization will implement SMS based on national and international requirements, system description, and gap analysis results.
- (c) Appointment of key safety personnel:
  - (1) Identify the Safety Manager, who will be responsible for managing the system on



behalf of the Accountable Executive, as required by BCAR 19.050; and

- (2) Establishment of the safety services office:
  - (i) The service provider must designate a physical space for the safety services office (SMS Office).
  - (ii) Must be formally integrated into the organization's organization chart with direct relation to the Accountable Executive.
- (d) Training and education:
  - (1) Conduct training needs analysis
  - (2) Develop an induction, initial and recurrent safety training program that ensures effective implementation and maintenance of the SMS, as required in BCAR 19.105.
  - (3) Identify the costs associated with training
  - (4) Develop a validation process that measures the effectiveness of training
  - (5) Establish a safety training records system
- (e) Safety communication:
  - (1) Develop and establish mechanisms for safety communications as required in BCAR 19.110.

#### **BCAR 19.120 PHASE 2**

At this phase, each service provider shall implement the fundamental management processes and correct the deficiencies in the existing safety management processes, as well as implement the aspects contained in the implementation plan that refer to the following elements:

- (a) Management commitment and responsibility:
  - (1) Develop and establish a Safety policy as required in BCAR 19.045;
  - (2) Develop and establish safety objectives for SMS by developing safety performance standards in terms of:
    - (i) Safety performance indicators
    - (ii) Safety performance targets and alert levels
    - (iii) Action plans
  - (3) Establish the SMS requirements for subcontractors:

- (i) Establish a procedure to write SMS requirements into the contracting process
- (ii) Establish the SMS requirements in the bidding documentation
- (b) Safety Accountability
  - (1) Define and communicate safety responsibilities throughout the organization, as required by BCAR 19.055;
  - (2) Establish the Safety Review Board (SRB) as required by BCAR 19.055(c);
  - (3) Establish the Safety Action Group (SAG) as required by BCAR 19.055(d);
  - (4) Define the roles for the SRB and the SAG, as required by BCAR 19.055 (c) and (d);
  - (5) Establish lines of communication between the Accountable Executive, the safety services office, and the safety management groups.
  - (6) Appoint the accountable executive as the chairperson of the Safety/SMS coordination committee (SRB/SAG).
  - (7) Develop a schedule of meetings for the safety service office to meet with the SMS coordination committee and SAG as needed.
- (c) Coordination of emergency response planning:
  - (1) Review the outline of the ERP related to the delegation of authority and assignment of emergency responsibilities.
  - (2) Establish coordination procedures for action by key personnel during the emergency and the return to normal operations.
  - (3) Identify external entities that will interact with the organization during emergency situations;
  - (4) Assess the respective ERPs of external entities;
  - (5) Establish coordination between the different ERPs, as required by BCAR 19.060:
  - (6) Develop an ERP, as required by BCAR 19.060;
  - (7) Incorporate information about the coordination between the different ERPs in the organization's SMS documentation
  - (8) Perform exercise testing as required by BCAR 19.060.
- (d) Training and education:



- (1) Execute the training corresponding to phase 2.
- (e) SMS documentation:
  - (1) Develop an SMS documentation system to describe, maintain, retrieve, and store all SMS-related information and records, including the following:
    - (i) Developing an SMS manual that is either a stand-alone manual or a distinct section within an existing controlled organizational manual, as required by BCAR 19.065; and
    - (ii) Establishment of an SMS filing system to collect and maintain current records relating to the organization's ongoing SMS processes, as required by BCAR 19.065.
    - (iii) Maintaining records to provide a historical reference as well as the current status of all SMS processes such as: hazard register, an index of completed safety assessments, SMS/safety training records, current SPIs and associated safety objectives, internal SMS audit reports, SMS/safety committee meeting minutes and the SMS implementation plan.
    - (iv) Maintaining records that will serve as evidence of the SMS operation and activities during internal and external assessment or audit of the SMS
  - (2) Develop documentation relating to the activities described in paragraphs (a), (b), (c), and (d) of this paragraph.

#### **BCAR 19.125 PHASE 3**

Any service provider under Phase 3 shall establish safety risk management processes and establish the basis for collecting safety data and performing safety analyses based on information obtained through various reporting systems, as well as implement the aspects contained in the implementation plan that refer to the following elements:

- (a) Hazard Identification:
  - (1) Establish a voluntary notification procedure, as required by BCAR 19.075;
  - (2) Establish a program/plan for the systematic review of all safety-related processes/equipment that are suitable for hazard identification, as required in BCAR 19.075; and
  - (3) Establish a procedure/process for prioritization and assignment of identified hazards for risk mitigation, in accordance with as required in BCAR 19.075 and 19.085.
- (b) Safety risk assessment and mitigation:
  - (1) Establish a safety risk management procedure including its approval and



periodic review process, as required in BCAR 19.075, 19.080, and 19.085; and

- (2) Develop and adopt safety risk matrices relevant to the organization's operational and production processes, as required in BCAR 19.075.
- (3) Include adopted safety risk matrices and associated instructions in the organization's SMS or risk management training material.
- (c) Safety performance measurement and monitoring:
  - Establish an internal occurrence reporting and investigation procedure (this may include mandatory or major defect reports MDR) where applicable, as required in BCAR 19.090;
  - (2) Establish safety data collection, processing and analysis of high-consequence outcomes, as required in BCAR 19.090;
  - (3) Establish high-consequence safety indicators, as required in BCAR 19.090;
  - (4) Reach agreement with the BDCA on safety performance indicators and safety performance targets.
- (d) Change Management:
  - (1) Establish a formal process for the management of change, as required by BCAR 19.095, that considers the following:
    - (i) The vulnerability of systems and activities
    - (ii) The stability of systems and operational environments
    - (iii) Past performance
    - (iv) Regulatory, industry and technological changes
  - (2) Ensure that management of change procedures addresses the impact on existing safety performance and risk mitigation records before implementing new changes;
  - (3) Establish procedures to ensure that the safety assessment of new aviation safetyrelated operations, processes, and equipment, are conducted (or considered) as applicable, before they are commissioned.
- (e) Continual Improvement:
  - (1) Develop forms for internal evaluations
  - (2) Define an internal audit process.
  - (3) Define an external audit process.



- (4) Define a schedule for evaluation of facilities, equipment, documentation and procedures to be completed through audits and surveys.
- (5) Develop documentation relevant to safety assurance.
- (f) Training and education:
  - (1) Execute the training corresponding to phase 3.
- (g) SMS documentation:
  - (1) Develop documentation relating to the activities described in paragraphs (a), (b), (c), (d), (e), and (f) of this subsection.

#### **BCAR 19.130 PHASE 4**

- (a) On Phase 4 the service provider shall demonstrate through an audit that it has established the safety objectives associated with its policy and has implemented the elements contained in the implementation plan that refer to the following elements:
  - (1) Management commitment and responsibility:
    - (i) Enhance disciplinary procedure/policy with due consideration of unintentional errors/mistakes from deliberate/gross violations;
  - (2) Hazard Identification:
    - (i) Integrate the hazards identified from occurrence investigation reports with voluntary reporting system.
    - (ii) Integrate hazard identification and risk management procedures with the subcontractor or customer SMS where applicable.
    - (iii) If necessary, develop a process for prioritizing collected hazards for risk mitigation based on areas of greater need or concern.
  - (3) Safety performance measurement and monitoring:
    - (i) Enhance the safety data collection and processing system to include lower-consequence events.
    - (ii) Develop low-consequence safety performance indicators with targets/alert level monitoring as appropriate.
    - (iii) Reach an agreement with the BDCA on low-consequence safety performance indicators and safety performance target/alert levels.
  - (4) Continual improvement of SMS:



- (i) Establish SMS audits or integrate them into existing internal and external audit programmes
- (ii) Establish other operational SMS review/survey programmes where appropriate;

# (5) Training and education:

(i) Ensure that the SMS training programme for all relevant personnel has been completed;

# (6) Safety communication:

(i) Establish mechanisms to promote safety information sharing and exchange internally and externally, in accordance with BCAR 19.110.

# (7) SMS documentation:

- (i) Develop documentation for the activities described in paragraph (a) of this subsection.
- (b) The Director will not approve the acceptance or validate the outcome of an SMS acceptance audit for any service provider if a major non-conformity is identified or if the number of minor non-conformities exceeds ten (10) during the audit process.
- (c) For the purpose of this subsection, a major non-conformity is defined as the complete failure to comply with any section of this BCAR. Conversely, a minor non-conformity refers to a partial failure to meet the requirements of any section of this BCAR.
- (d) In accordance with paragraphs (b) and (c) of this subsection, a service provider that records a major non-conformity or accumulates more than ten (10) minor nonconformities during an acceptance audit will not be eligible for the BDCA SMS Acceptance certificate, unless the following conditions are met:
  - (1) Within a maximum period of fifteen (15) business days following receipt of the formal acceptance audit report, the service provider must submit an action plan acceptable to the Director, detailing the steps to address the non-conformities identified during the audit; and
  - (2) Within a maximum of seventy-five (75) business days from the Director's acceptance of the action plan, the service provider must submit evidence, satisfactory to the Director, demonstrating that the identified non-conformities have been effectively addressed.
- (e) If a service provider presents justifiable reasons for not resolving non-conformities identified during the audit, and these reasons are accepted by the Director, the Director may grant an additional compliance period beyond the timeframe specified in paragraph (d)(2) of this subsection.



(f) In accordance with paragraphs (b) and (c) of this subsection, a service provider that, during an acceptance audit, has not incurred a major non-conformity and has fewer than ten (10) minor non-conformities may be granted the BDCA SMS Acceptance certificate, confirming its status as a service provider with an established SMS. This is contingent upon the provider submitting, within fifteen (15) business days of receiving the formal audit report, an action plan acceptable to the Director outlining the measures to address the identified non-conformities.

(g) Upon successful completion of this phase, any service provider that has applied to the Director for SMS acceptance and has fully complied with all BCAR 19 requirements will be issued an SMS Letter or Certificate of Acceptance, formally recognizing the organization as having an SMS accepted by the BDCA.

