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CIVIL AVIATION AUTHORITY OF BANGLADESH

INSPECTOR'S HAND BOOK

ON

IMPLEMENTATION OF SAFETY MANAGEMENT SYSTEM (SMS)

For

Flight Standard & Regulations Division

March 2017

Issue-1

CAAB HQ, Kurmitola, Dhaka-1229

Bangladesh

FOREWARD

This Manual is approved for use by the Civil Aviation Authority of Bangladesh (CAAB).

The Manual is intended for the use and guidance of CAAB inspectors engaged in over sighting of the Safety Management System preparation by the service providers and defines the procedures to be followed by CAAB staff involved in the Safety Management System acceptance of services providers and to provide guidance on how those procedures should be applied.

The Director of Flight Safety and Regulations Department is responsible for updating and over-sighting this manual as required, the acceptance of SMS implementation. The scope of this manual is confined to the safety, regularity and efficiency aspects of facilities, services, equipment and operational procedures and excludes the subjects of aviation security, air navigation services and other areas such as occupational health.

Date 04/04/2017

Wing Commander Chy M Ziaul Kabir
Director
Flight Safety & Regulation
Civil Aviation Authority of Bangladesh

AMMENDMENTS

The issue of amendments is announced regularly in the CAAB website which the aviation services providers should consult. The space below is provided to keep a record of such amendments.

Record of Amendments

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DEFINITIONS

Acceptable Level of Safety:

Acceptable level of safety expresses the safety goals of an oversight authority, an operator, or a services provider. From the perspective of the relationship between oversight authorities and operators/services providers, it provides the minimum safety objective(s) acceptable to the oversight authority to be achieved by the operators/services providers while conducting their core business functions. It is a reference against which the oversight authority can measure safety performance

Accident: An occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, 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 the engine, its cowlings or accessories; or for damage limited to propellers, wing tips, antennas, tires, brakes, fairings, small dents or puncture holes in the aircraft skin; or

c) the aircraft is missing or is completely inaccessible.

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

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

Accountable Executive:

Is the person who has the full authority and responsibility for
•human resources issues,
•major financial issues,
•the conduct of the organization's affairs,
•operations under certificate,
•all safety issues

Aerodrome certificate. A certificate issued by the appropriate authority under applicable regulations for the operation of an aerodrome.

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

ALARP: is used to describe a safety risk which has been reduced to a level that is as low as reasonably practicable.

Approved Maintenance Organization. An organization approved by a Contracting State, in accordance with the requirements of Annex 6, Part I, Chapter 8 — Aero plane Maintenance, to perform maintenance of aircraft or parts thereof and operating under supervision approved by that State.

Note. — Nothing in this definition is intended to preclude that the organization and its supervision be approved by more than one State.

Approved Training. Training conducted under special curricula and supervision approved by a Contracting State that, in the case of flight crew members, is conducted within an approved training organization.

Approved Training Organization. An organization approved by a Contracting State in accordance with the requirements of Annex 1, 1.2.8.2 to perform flight crew training and operating under the supervision of that State.

ATC: Air Traffic Control A service provided for the purpose of preventing collisions between aircraft or between aircraft and obstructions (in the maneuvering area) and for the purpose of expediting and maintaining an orderly flow of air traffic.

ATS: Air Traffic Service The provision of air traffic control, flight information and/or air-ground communications services.

Authority: The Authority is the regulatory body with jurisdiction over users and service providers

Certification, A process performed by the appropriate authority in order to approve an established provider of Aviation related services.

Certified Aerodrome. An aerodrome whose operator has been granted an aerodrome certificate.

Consequence: Potential outcomes of hazard.

Continuous Monitoring: Uninterrupted watchfulness over the system

Derived Safety Requirements: Those Safety Requirements that have been generated by undertaking a hazard identification and risk assessment process.

Flight Data Analysis. A process of analyzing recorded flight data in order to improve the safety of flight operations.

Gap Analysis: Identification of existing safety components compared to SMS program requirements.

Hazard: A condition or an object with the potential to cause injuries to personnel, damage to equipment or structures, loss of material, or reduction of ability to perform a prescribed function.

HAZOP: Hazard and Operability study,
A systematic functional hazard identification process that uses an expert group to conduct a structured analysis of a system using a series of guide words to explore potential hazards

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

Note. — The types of incidents which are of main interest to the International Civil Aviation Organization for accident prevention studies are listed in the Accident/Incident Reporting Manual (ADREP Manual) (Doc 9156).

Investigation: A process conducted for the purpose of accident prevention which includes the gathering and analysis of information, the drawing of conclusions, including the determination of causes and, when appropriate, the making of safety recommendations.

Internal Safety Investigations: Internal safety investigations are investigations performed by a service provider for events occurring within its organization that are not required to be reported to or investigated by civil authority.

Level of Safety: Degree of safety of a system, representing the quality of the system, safety-wise, expressed through safety indicators.

Licensing Authority: The Authority designated by a Contracting State as responsible for the licensing of personnel.

Note. — In the provisions of Annex 1, the Licensing Authority is deemed to have been given the following responsibilities by the Contracting State:

a) Assessment of an applicant's qualifications to hold a licence or rating;

b) Issue and endorsement of licences and ratings;
c) Designation and authorization of approved persons;
d) Approval of training courses;
e) Approval of the use of flight simulation training devices and authorization for their use in gaining the experience or in demonstrating the skill required for the issue of a licence or rating; and
f) Validation of licences issued by other Contracting States.

Maintenance: The performance of tasks required ensuring the continuing airworthiness of an aircraft or ground based equipment in the service of the Aviation sector including any one or combination of overhaul, inspection, replacement, defect rectification, and the embodiment of a modification or repair.

Maintenance Organization's Procedures Manual : A document endorsed by the head of the maintenance organization which details the maintenance organization's structure and management responsibilities, scope of work, description of facilities, maintenance procedure and quality assurance or inspector systems

Maintenance Program: A document which describes the specific scheduled maintenance tasks and their frequency of completion and related procedures, such as are liability programme, necessary for the safe operation of aircraft or ground based equipment in the service of the Aviation sector to which it applies.

Maintenance Release: A document which contains a certification confirming that the maintenance work to which it relates has been completed in a satisfactory manner, either in accordance with the approved data and the procedures described in the maintenance organization's procedures manual rounder an equivalent system.

Mitigation: Measures to eliminate the potential hazard or to reduce the risk probability or severity.

MOR: Mandatory Occurrence Reporting: Formal scheme for the national recording and reporting of safety significant incidents.
•Any accident or incident
•Any situation or condition that could, if left unattended, induce an accident or incident

Operations Specifications. The authorizations, conditions and limitations associated with the air operator certificate and subject to the conditions in the operations manual.

Organization: An organization is a formal activity that is subject to formal regulation.

Performance Criteria. Simple, evaluative statements on the required outcome of the competency element and a description of the criteria used to judge whether the required level of performance has been achieved.

Oversight: A function that ensures the effective promulgation and implementation of the safety-related standards requirements, regulations, and associated procedures.

Predictive: The adoption of an approach, which emphasizes prevention through capturing system performance as it happens in real-time normal operations.

Proactive: The adoption of an approach which emphasizes prevention through the identification of hazards and the introduction of risk mitigation measures before the risk-bearing event occurs and adversely affects safety performance.

Probability: The chance that a situation of danger might occur.

Procedure: A series of steps followed in a methodical manner to complete an activity (what shall be done and by whom; when, where and how it shall be completed; what materials, equipment, and documentation shall be used, and how it shall be controlled).

Process: A set of interrelated or interacting activities, which transforms inputs into outputs.

Quality Assurance: Part of quality management focused on providing confidence that quality requirements will be fulfilled.

Quality Control: Part of quality management focused on fulfilling quality requirements.

Quality Management: Coordinated activities to direct and control an organization with regard to quality.

Quality System: Documented organizational procedures and policies; internal audit of those policies and procedures; management review and recommendation for quality improvement.

Reactive: The responding to the events that already happened, such as incidents and accidents

Risk: A combination of the likelihood of a hazard occurring and the severity of the accident that could result; e.g. the higher the risk, the more likely the accident will occur and/or the more severe will be the consequence.

Risk Assessment: A process that for identified hazards, evaluates their risk in terms of probability and severity of consequences

Safety: The state in which the possibility of harm to persons or of property damage is reduced to, and maintained at or below, an acceptable level through a continuing process of hazard identification and safety risk management.

Safety Assessment: A systematic, comprehensive evaluation of an implemented system.

Safety Assessment Criteria: The set of quantitative or qualitative criteria to be used in a safety assessment to determine the acceptability of the assessed level of safety.

Safety Assurance: SMS process management functions that systematically provide confidence that all service providers 'products/services meet or exceed safety requirements.

Safety Audit: Scheduled, formal reviews and verifications to evaluate how well the service provider is meeting its safety objectives.

Safety Barriers: Term used to indicate systems, sub-systems or methods used to reduce the likelihood of a hazard escalating into an incident or accident, and/or reduces their severity.

Safety Indicators: Parameters that characterize and/or typify the level of safety of the system.

Safety Management System: A systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures.

Safety Program: An integrated set of regulations and activities aimed at improving safety.

Safety Risk: Assessment, expressed in terms of predicted probability and severity, of the consequences of a hazard, taking as reference the worst foreseeable situation.

Safety Management Manual ICAO SMM (Doc 9859) contains guidance and instruction for the development and implementation of SMS.

Safety Manager: A person responsible for managing the system safety program.

Safety Objective: The definition of a hazard together with its target maximum rate of occurrence. A goal or target that, where achieved, demonstrates that a tolerable level of safety is being, or will be achieved for the hazard concerned.

Safety Performance Indicator: A measure (or metric) used to express the level of safety performance achieved in a system; the required level of safety performance for a system comprises one or more safety performance
Note. — Typically, safety risks are designated through an alphanumeric convention that allows for their measurement.

Safety Policy: Is the outlines of the methods and processes that the service provider will use to achieve desired safety outcomes, and it serves as a reminder as to "how we do business here" and defines the fundamental approach to managing safety that is to be adopted within an organization. Safety policy further defines the service provider's commitment to safety and overall safety vision.

Safety Promotion: A combination of safety culture, training, and data sharing activities that supports the implementation and operation of an SMS in a service provider's organization.

Safety Requirement: Specified criteria of a system that is necessary in order to reduce the risk of an accident or incident to an acceptable level. Also a requirement that helps to achieve.

Safety Risk: The composite of the likelihood (i.e., risk) of the potential effect of a hazard, and predicted severity of that effect. As an example, the possibility of an overshoot by an aircraft landing on an icy

runway would be considered a safety risk of the hazard. The hazard is "icy runway" and the risk is possibility of an overshoot.

Safety Risk Management: A generic term that encompasses the assessment and mitigation of the safety risks of the consequences of hazards that threaten the capabilities of an organization, to a level as low as reasonably practicable (ALARP).

Safety Risk Probability: The likelihood that an unsafe event or condition might occur.

Safety Risk Severity: The possible consequences of an unsafe event or condition, taking as reference the worst foreseeable situation.

Safety Survey: Is a systematically examine or review of particular organizational elements or the processes used to perform a specific operation — either generally or from a particular safety perspective

Safety Targets: Concrete safety objectives to be achieved.

Service Provider: An organization, serving operators and other providers, that is part of the aviation activity and is functionally separated from its regulator.

Severity: The consequence or impact of a hazard in terms of degree of loss or harm.

State of Manufacture: The State having jurisdiction over the organization responsible for the final assembly of the aircraft.

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

State Safety Program: An integrated set of regulations and activities aimed at improving safety. The organized set of equipment, procedures and/or personnel required to carry out a function.

System Description:
Includes:

- The system interactions with other systems in the air transportation system.
- The system functions.
- Required Human Factors considerations of the system operation.
- Hardware components of the system.
- Software components of the system.
- Related procedures that define guidance for the operation and use of the system.
- Operational environment
- Contracted and purchased products and services.

Target level of safety (TLS): A generic term representing the level of risk which is considered acceptable in particular circumstances.

Value of a safety indicator: Quantification of a safety indicator.

Value of a safety target: Quantification of a safety target.

ABBREVIATIONS

ANS	Air Navigation Services
ASTRM	Aviation Safety Reporting Tracking Management
ATS	Air Traffic Services
CAAB	Civil Aviation Authority of Bangladesh
DFSR	Director of Flight Safety & Regulations
ICAO	International Civil Aviation Organization
IIC	Investigator-in-Charge
GM	General Manager
SD	Safety Department
SDCPS	Safety Data Collection and Processing Systems
SMSM	Safety Management System Manual
SMS	Safety Management System
S&ER	Safety and Economic Regulation
UTC	Universal Coordinated Time

CHAPTER 1 – INTRODUCTION

1.1 Legal Background

This is a manual on Safety Management System based on sub rule 3 and 4 of rule 123 of CAR 84, ANO1.6 –Safety Management, ICAO Safety Management Manual (Doc 9859) and ICAO Annex 19.

The publication of this manual is based on the authority granted in Article 19 of the Civil Aviation Act 2016, and is issued under the authority of the Chairman of Civil Aviation of Bangladesh,

The Civil Aviation Authority of Bangladesh (CAAB) is responsible for the preparation and distribution of all manuals in sufficient quantities so that all service providers and aircraft operators based in Bangladesh is able to obtain an authentic copy.

Based on the Annex19, Bangladesh shall undertake, under its safety management, "to collaborate in securing the highest practicable degree of uniformity in regulations, standards, procedures, and organization in relation to aircraft, personnel, airways and auxiliary services in all matters in which such uniformity will facilitate and improve air navigation."

1.2 Purposes of the Guidance Material on SMS implementation

This guidance material is aiming to provide guidelines that would assist implementation and maintenance of the SMS as well as many suggestions for the improvements in the existing safety oversight system.

It is a guidance material for Bangladesh aviation industry as specialists, auditors, inspectors, service providers and managers involved in safety. It has three main objectives:

- To set the regulatory requirement on SMS documentation and implementation
- To identify the SMS acceptance steps and procedures
- To monitor the enforcement process.

This Guidance represents the most effective and efficient international approach of meeting the long term Bangladesh aviation safety requirement through the SMS implementation. Safety is the highest priority.

1.3 Roles and Responsibilities

a. Safety and Economic Regulation

The S&ER responsibilities on safety risk management are:

- Policy development based on hazard identification and analysis of the safety risks of the consequences of hazards

Regulations become safety risk controls when adopted by service provider's SMS

- Effective and efficient implementation of SSP oversight activities supported by hazard identification and safety risk analyses
- Effective and efficient implementation of oversight activities of service providers based on the assessment of safety performance of service providers' SMS
- Priorities regarding resource allocation are based upon the severity of the safety risks of the hazards identified
- Compliance monitoring is based on conventional auditing

State must provide its staff ccompetent technical knowledge. Additional knowledge regarding hazard identification and safety risk analysis

- State must communicate its SSP internally and externally

b. Aviation Safety Division:

The safety division (FS&R) responsibilities on safety risk management are:

- Developing, updating, implementing and enforcing the processes set out in this manual
- Establishing and maintaining appropriate safety standards and performance criteria for SMimplementation related to this manual
- Ensuring that sufficient competent staffs are available to maintain an appropriate level of safety oversight
- Assignthe SMS implementation acceptance specialist/inspector for each acceptance or audit/enforcement mandate
- Reviewing and revising the associated Regulations
- Developing and promoting safety guidance for the aviation services providers.

b. Safety SMS implementation specialist/inspector

The CAAB acceptance specialist/inspector is responsible for ensuring the processes set out in this manual are effectively implemented and in particular for:

- Managing surveillance and enforcement action in accordance with the regulations and the procedures set out in this manual
- Ensuring that sufficient competent specialist inspectors are available to undertake all necessary acceptance and surveillance activities and as necessary through the coordination with relative division
- Assign and supervise the specialist Inspectors, if it is needed

c. Specialist Inspectors

Specialist Inspectors from CAAB's other departments, contracting staff or staff from other service providers, and either full time or fixed term contract staff might be appointed as required to support specific acceptance or enforcement activities.

Specialist from other CAAB departments and contract staff will act in as advisory capacity and will not be authorized to take enforcement action.

1.4 References

a. DOC 9859 (Safety Management Manual)

1.5 Contact Details

For guidance and policy on points that are not covered within this publication, advice should be sought from Flight Safety & Regulations of the Civil Aviation Authority of Bangladesh (CAAB):

Director of Flight Safety and Regulations
Civil Aviation Authority of Bangladesh
Kurmitola, Dhaka 1229
Tel: +880 (2) 890-1406

1.6 Scope of the SMS acceptance

Safety Division is accepting an SMS when:

- the documentation is provided in accordance with the current manual,
- the SMS is implemented properly,
- in case of deviation, an accepted corrective action plan is provided and agreed with the SMS acceptance inspector.

The acceptance is ensured for

- A limited and a specified time and
- Within an established and identified entity.

1.7 The SMS service provider acceptance requirement

1. The service provider facilities and equipment are in accordance with the standards specified in the CAAB rule and meet all aviation safety requirements;

2. The service provider's operational manual contains all of the particulars required under the regulations, particularly:

    a. CAR 84 Rule 123 Para 3 & 4
    b. ICAO Doc. 9859

3. The service provider operating procedures, as documented in the service provider operation manual, make satisfactory provision for the safety of aircraft, facilities and/or equipment and/or procedures.

4. The service provider 16ill be required to demonstrate the effectiveness of the plan by carrying out a full operational emergency exercise, if it is deemed identified necessary by the SMS acceptance inspector.

5. The applicant will be able to properly operate and maintain its facilities safely.

6. In assessing an application, the DFS&R division will be looking particularly for evidence of:

    a. The SMS manual is provided and the document is controlled and updated properly, frequently and owned by one of the senior management
    b. The SMS is implemented, including a clearly identification of:
        i. The safety policy and objectives, and that is owned by one of the senior management
        ii. As safety risk management, including, but not limited to, a hazard identification procedure and a risk assessment plan and mitigation

iii. The safety assurance including, but not limited to, a safety performance monitoring and measurement
iv. A safety promotion including a clear training commitment.

1.8 Who is to apply for acceptance?

The following aviation service provider will have an accepted SMS to be able to operate in Bangladesh:

a) Approved training organizations in accordance with Annex1 that are exposed to safety risks related to aircraft operations during the provision of their services;

b) Operators of aero planes or helicopters authorized to conduct international commercial air transport, in accordance with Annex 6, Part I or Part III, Section II, respectively;

c) Approved maintenance organizations providing services to operators of aero planes or helicopters engaged in international commercial air transport, in accordance with Annex 6,Part I or Part III, Section II, respectively;

d) Operators of certified aerodromes in accordance with Annex 14.

1.9 How to apply for SMS acceptance?

Each applicant for Certification or recertification will:

a) Prepare and submit an application, in a form and manner prescribed by this manual to CAAB
b) Submit with the application one hard copy of the service provider SMS manual.
c) Submit with the application one hard copy of an ERP Manual
d) Submit a soft copy of the application form, Service provider SMS Manual by email

dfsr@caab.gov.bd

1.10 The SMS amendment

The service provider will ask for acceptance amendment when:

1. There is a change in the ownership or management of the service provider.
2. There is a change in the use or operation of the facilities and equipment, including a change to the physical characteristics.
3. The holder of the already accepted SMS requests an amendment.

CAAB determines that the aviation safety or the public interest requires an amendment.

1.11 Responsibility of CAAB related to the SMS acceptance

In respect of service provider SMS acceptance, the CAAB is responsible for:

1. Establishing and enforcing regulations and mandatory standards in respect to the safety of operation and services provided to an international civil aviation traffic.

2. Accepting and assessing that the service provider subject to the regulations will achieve an acceptable level of safety when operated and maintained in accordance with an accepted service provider operation manual.

3. Assuring the continued safety of operations at accepted SMS service provider facilities and equipment and procedures through guidance, inspection, audit and investigation.

These responsibilities are delegated to the Flight Safety Division.

1.12 The service provider acceptance process

STEP 1

- a formal application Form for acceptance will be submitted to the CAAB requesting the issue/renewalof a SMS acceptance, at least sixteen (16) weeks prior to the operator's requested target date for the renewal or issue of the SMS acceptance.

STEP 2

- the service provider will submit the SMS Manual and the ERP at least fourteen (14) weeks before therequested target date. The Appendix I provide details on the content of the SMS Manual.
- Table 1 introduces the documents needed at the step 2 of the certification process.

STEP 3

CAAB will upon receipt of the required documents:

- Assign an SMS acceptance specialists/inspector
- Conduct a preliminary SMS acceptance inspection of the service provider facilities including auditingprocedures, equipment and policies and any other related safety activities as per Appendix 3 at least ten (10) weeks before the requested target date. The on-site verification, its organization and its SMS,assesses the service provider procedures based upon the contents of the SMS manual. This includes technical inspections of the facilities, its equipment and safety procedures, as related to the

- requirements associated with the intended operations.
- Produce a report and send to the service provider representative no later than six (6) weeks before the requested target date.

STEP 4

- The service provider representative will on receipt of the Inspectors Pre-acceptance /renewal preliminary Inspection report, send a formal company acceptance confirmation of the report and submit a detailed action plan with timescales to the CAAB to rectify or mitigate any findings to an acceptable level, under the operator/s Safety Management System (SMS) no later than four (4) weeks before the requested target date.
- At least two (2) weeks before the requested target date, CAAB will conduct a final acceptance/renewal inspection of the service provider facilities including auditing procedures equipment and policies and any other related safety activities

STEP 5

- The CAAB will only issue an acceptance certificate, when the Authority is completely satisfied that all critical safety elements have been adequately addressed and this may require a further CAAB audit/Inspection follow up.
- The service provider will provide three hard copies of the final SMS and its related ERP manuals submitted to Flight Safety Division in order to obtain the acceptance stamp and signature of the Chief of Safety.
- The service provider acceptance will only be issued on receipt of the appropriate fees. Each accepted SMS holder required to have a Safety Management System (SMS) under this part and must establish and maintain an SMS that is appropriate to the size, nature and complexity of its organization and its operations. The SMS must include at least the following components:

a) Safety policy in accordance
b) Safety risk management in accordance
c) Safety assurance in accordance
d) Safety promotion in accordance

The SMS will ensure compliance with all the relevant regulatory requirements in the CAR.84. Each aviation organization required to have an SMS under this part must submit the Safety Management System documentation to the Safety Division for acceptance. Any aerodrome operator will develop, update and own a SMS.

1.13 The SMS scope

Each accepted SMS holder is required to have a Safety Management System (SMS) under this part and may establish and maintain an SMS that is appropriate to the size, nature and complexity of its organization and its operations. The SMS will include at least the following components:

a. Safety policy in accordance
b. Safety risk management in accordance
c. Safety assurance in accordance
d. Safety promotion in accordance

The SMS will ensure compliance with all the relevant regulatory requirements in the CAAB. Each aviation organization required to have an SMS under this part must submit the Safety Management System documentation to the Safety Division for acceptance.

1.14 The SMS content

Appendix 1 introduces the service provider SMS content including extensive details.
Table 2 summarizes the service provider SMS content checklist, as expected by CAAB.

Safety Policy and jectives	1.1 Safety policy	
	1.2 Management commitment and safety accountabilities	
	1.3 Key safety personnel	
	1.4 Emergency preparedness and response	
	.5 SMS documentation and records	
.Safety Risk anagement (SRM)	2.1 Hazard identification and	2.1.1 System Description and Task Analysis
		2.1.2 Identify Hazards
	2.2 Risk Assessment and control	2.2.1 Analyze Safety Risk
		2.2.2 Assess Safety Risk
		2.2.3 Control/Mitigate Safety Risk
. Safety Assurance SA)	3.1 Safety Performance monitoring and measurement	**3.1.1** Continuous monitoring
		3.1.2 Internal Audits by Operational department
		3.1.3 Internal Evaluation
		3.1.4 External Auditing of the SMS
		3.1.5 Investigation
		3.1.6 Employee Reporting and Feedback System
		3.1.7 Data Analysis
		3.1.8 System Assessment
	3.2 The management of	
	3.3 Continuous improvement	3.3.1 Preventive/Corrective Action
		3.3.2 Management Review
4. Safety Promotion	4.1 Competencies and training	4.1.1 Personnel Expectations (Competence)
	4.2 Communication and awareness	

1.15 SMS Training Program

There is NO mandatory Personal Training Program certified by CAAB. However, an accepted SMS holder has to demonstrate that his personal involved in safety are trained continuously based on the field of their tasks and duty. As the technology and the knowledge are evolving so quickly, the certificate holder will demonstrate a regular and recurrent training program.

A practical exercise and simulation are part of the training program of the safety personnel.

Each service provider personnel will maintain currency under by taking annual recurrent training in (Relevant to the personnel duties and responsibilities):

- Hazard and Risk identification and reporting
- Fatigue Risk Management
- Airport Familiarization
- Rescue and Firefighting Personnel Safety
- Emergency Communication on the Airport
- Use of Aircraft Firefighting Equipment
- Application of Aircraft Fire Extinguishing agents
- Emergency Evacuation of Aircraft and workplace
- Familiarization with Firefighters Duties under the Airport Emergency Plan
- Emergency Medical Care course

CAAB ensures compliance through two interrelated activities: Inspection and Audits.

1.16 Enforcement and oversight recurrence

A continued oversight is established by CAAB in order to ensure that compliance with regard to certification conditions and on-going additional requirements are maintained. Each applicant for, or holder of, an accepted SMS must allow CAAB to make any inspections, including unannounced inspections, or tests to determine compliance with the CAR 84.

CAAB will schedule periodic inspections as indicated in the table 3.

Service Provider	When (months)		
	6 to 12 Cycle	12 to 18 Cycle	18 to 24 Cycle
Airlines	√		
Others		√	√

CAAB has a range of enforcement measures available to address safety obligations.

These measures may result in a variety of actions such as:

- ☐ Cancelling,
- ☐ Remedial training,
- ☐ Amendment, suspension or withdrawal of acceptance, or
- ☐ Prosecution

The enforcement action must be timely, fair, and consistent and applied without favour or prejudice.

CHAPTER 2 – SCOPE AND APPLICABILITY

2.1 Scope

2.1.1 This regulation describes the requirements for a service provider safety management system (SMS) operating in accordance with CAAB Regulations and ICAO Annex 6 — Operation of Aircraft, Part I — International Commercial Air Transport — Aero planes, and Part III — International Operations — Helicopters, ICAO Annex 8 — Airworthiness of Aircraft, ICAO Annex 11 — Air Traffic Services, and ICAO Annex 14 — Aerodromes, Volume I — Aerodrome Design and Operations and the ICAO Safety Management Manual (Doc 9859).

2.1.2 Within the context of this regulation the term "service provider" must be understood to designate any service provider providing aviation related services. The term encompasses aircraft operators, maintenance organizations, air traffic service providers and aerodrome operators, as applicable.

2.1.3 This regulation addresses aviation safety related processes and activities rather than occupational safety, environmental protection, or customer service quality.

2.1.4 The service provider is responsible for the safety of services or products contracted to or purchased from other organizations.

2.1.5 This regulation establishes the minimum acceptable requirements; the service provider can establish more stringent requirements.

2.2 Applicability and Acceptance

2.2.1 Effective 1st of August 2009, a service provider will have in place a safety management system (SMS) that is acceptable to the Civil Aviation Authority of Bangladesh.

2.2.1.1 Identifies safety hazards;

2.2.1.2 Ensures the implementation of remedial action necessary to maintain agreed safety performance;

2.2.1.3 Provides for continuous monitoring and regular assessment of the safety level achieved;

2.2.1.4 Aims at a continuous improvement to the overall performance of the safety management system.

2.2.2 In order to be acceptable to the Civil Aviation Authority of Bangladesh a service provider SMS shall meet the requirements set forth in this regulation.

CHAPTER 3 – REFERENCES

3.1 ICAO References

3.1.1 This regulation is in accordance with ICAO Safety Management Manual (Doc 9859) and the requirements CAAB Regulations and ICAO Annex 6 — Operation of Aircraft, Part I — International Commercial Air Transport — Aero planes, and Part III — International Operations — Helicopters,

3.1.2 Annex 8 — Airworthiness of Aircraft ICAO Annex 11 — Air Traffic Services, and ICAO Annex 14 —Aerodromes, Volume I — Aerodrome Design and Operations).

3.2 CAAB References

3.2.1 This regulation is in accordance with the CAAB Safety Management Manual Regulations.

CHAPTER 4 – GENERAL

4.1 General

The Service provider will establish, maintain and adhere to a safety management system (SMS) that is appropriate to the size, nature and complexity of the operations authorized to be conducted under its operations certificate and the safety hazards and risks related to the operations.

CHAPTER 5 – SAFETY POLICY AND OBJECTIVES

5.1 General requirements

5.1.1 The service provider will define the organization's safety policy.

5.1.2 The safety policy will be signed by the Accountable Executive of the organization.

5.1.3 The safety policy will include the responsibilities of management and employees with respect to the safety performance of the SMS.

5.1.4 The safety policy will include a clear statement about the provision of the necessary resources for its implementation.

5.1.5 The safety policy will be communicated, with visible endorsement, throughout the organization.

5.1.6 The safety policy will also include, inter alia:

5.1.7 A commitment to continual improvement in the level of safety;

5.1.8 The hazard reporting procedures; and

5.1.9 The conditions under which disciplinary action would be not be applicable following hazard reporting by employees.

5.1.10 The safety policy shall be in accordance with all applicable legal requirements and international standards, best industry practices and will reflect organizational commitments regarding safety.

5.1.11 The safety policy will be reviewed periodically to ensure it remains relevant and appropriate to the organization.

5.1.12 A service provider will establish safety objectives for the SMS.

5.1.13 The safety objectives is to be linked to the safety performance indicators, safety performance targets and safety requirements of the service provider's SMS.

5.2 SMS Organizational arrangements and safety accountabilities and Responsibilities

5.2.1 A service provider will identify an Accountable Executive to be responsible and accountable on behalf of the service provider for meeting the requirements of this regulation, and shall notify [State] the name of the person.

5.2.2 The Accountable Executive will be a single, identifiable person who, irrespective of other functions, will have ultimate responsibility and accountability, on behalf of the [organization], for the implementation and maintenance of the SMS.

5.2.3 The Accountable Executive will have:

5.2.3.1 Full control of the human resources required for the operations authorized to be conducted under the operations certificate;

5.2.3.2 Full control of the financial resources required for the operations authorized to be conducted under the operations certificate;

5.2.3.3 Final authority over operations authorized to be conducted under the operations certificate;

5.2.3.4 Direct responsibility for the conduct of the organization's affairs;

5.2.3.5 And Final responsibility for all safety issues.

5.2.4 A service provider will establish the necessary organizational arrangements for the implementation, adherence and maintenance of the organization's SMS.

5.2.5 A service provider will identify the safety accountabilities, responsibilities and authorities of all members of management as well as of all employees, irrespective of other responsibilities.

5.2.6 Safety-related accountabilities, responsibilities and authorities will be defined, documented and communicated throughout the organization.

5.2.7 A service provider will identify a safety manager to be the member of management to be the responsible individual and focal point for the implementation and maintenance of an effective SMS.

5.2.8 The Safety Manager will inter alia:

5.2.8.1 Ensure that processes needed for the SMS is developed, implemented adhered to and maintained;

5.2.8.2 Report to the Accountable Executive on the performance of the SMS and on any need for improvement; and

5.2.8.3 Ensure safety promotion throughout the organization.

5.3 Coordination of emergency response planning

5.3.1 A service provider will ensure its emergency response plan is properly coordinated with the emergency response plans of those organizations it must interface with during the provision of its services.

5.3.2 The coordination of the emergency response planning will ensure the orderly and efficient transition from normal to emergency operations and the return to normal operations

5.3.3 The coordination of emergency response plan will include, inter alia:

5.3.3.1 The designation of emergency authority;

5.3.3.2 The assignment of emergency responsibilities during the coordinated activities;

5.3.3.3 The coordination of efforts to cope with the emergency; and

5.3.3.4 The compatibility with other emergency response plans of other organizations.

5.4 Documentation

5.4.1 A service provider will develop and maintain SMS documentation to describe:

5.4.1.1 The safety policy and objectives;

5.4.1.2 The SMS requirements;

5.4.1.3 The SMS processes and procedures;

5.4.1.4 The accountabilities, responsibilities and authorities for processes and procedures; and

5.4.1.5 The SMS outputs.

5.4.2 A service provider will, as part of the SMS documentation, complete a system description.

5.4.3 The system description will include the following:

5.4.3.1 The system interactions with other systems in the air transportation system;

5.4.3.2 The system functions;

5.4.3.3 Required human performance considerations of the system operation;
5.4.3.4 Hardware components of the system;
5.4.3.5 Software components of the system;
5.4.3.6 Related procedures that define guidance for the operation and use of the system;
5.4.3.7 Operational environment; and
5.4.3.8 Contracted, sub-contracted and purchased products and/or services;

5.4.4 A service provider will, as part of the SMS documentation, complete a gap analysis, in order to:

5.4.4.1 Identify the safety arrangements and structures that may be already exist throughout an organization; and

5.4.4.2 Determine additional safety arrangements required to implement and maintain the organization's SMS.

5.4.5 A service provider will, as part of the SMS documentation, develop, adhere to and maintain an SMS implementation plan.

5.4.6 The SMS implementation plan will be the definition of the approach the organization will adopt for managing safety in a manner that will meet the organization's safety objectives.

5.4.7 The SMS implementation plan will explicitly address the coordination between the SMS of the service provider and the SMS of other organizations the service provider must interface with during the provision of the services.

5.4.8 The SMS implementation plan shall include the following:

5.4.8.1 Safety policy and objectives;
5.4.8.2 System description;
5.4.8.3 Gap analysis;
5.4.8.4 SMS components;
5.4.8.5 Safety roles and responsibilities;
5.4.8.6 Hazard reporting policy:
5.4.8.7 Means of employee involvement;
5.4.8.8 Safety performance measurement
5.4.8.9 Safety training;
5.4.8.10 Safety communication; and
5.4.8.11 Management review of safety performance

5.4.9 The SMS implementation plan will be endorsed by senior management of the organization.

5.4.9.1 A service provider will, as part of the SMS documentation, develop and maintain a safety management system manual (SMSM), to communicate the organization's approach to safety throughout the organization.

5.4.10 The SMSM will document all aspects of the SMS, and its contents shall include the following:

5.4.10.1 Scope of the safety management system;
5.4.10.2 Safety policy and objectives;

5.4.10.3 Safety accountabilities;
5.4.10.4 Key safety personnel;
5.4.10.5 Documentation control procedures;
5.4.10.6 Coordination of emergency response planning;
5.4.10.7 Hazard identification and risk management schemes;
5.4.10.8 Safety performance monitoring;
5.4.10.9 Safety auditing;
5.4.10.10 Procedures for the management of change;
5.4.10.11 Safety promotion; and
5.4.10.12 Control of contracted activities.

Information note – Generic guidelines for SMS documentation development and maintenance can be found in Attachment H to ICAO Annex 6, Part I, and Attachment G to ICAO Annex 6, Part III, and Operator's Flight Safety Documents System.

CHAPTER 6 – SAFETY RISK MANAGEMENT

6.1 General

6.1.1 A service provider will develop and maintain a formal process that ensures that hazards in operations are identified.
6.1.2 A service provider will develop and maintain safety data collection and processing systems SDCPS) that provide for the identification of hazards and the analysis, assessment and mitigation of safety risks
6.1.3 A service provider's SDCPS will include reactive, proactive and predictive methods of safety data collection.

6.2 Hazard identification

6.2.1 A service provider will develop and maintain formal means for effectively collecting, recording, acting on and generating feedback about hazards in operations, which combine reactive, proactive and predictive methods of safety data collection. Formal means of safety data collection shall include mandatory, voluntary and confidential reporting systems.
6.2.2 The hazard identification process will include the following steps:
6.2.2.1 Reporting of hazards, events or safety concerns;
6.2.2.2 Collection and storing the safety data;
6.2.2.3 Analysis of the safety data; and
6.2.2.4 Distribution of the safety information distilled from the safety data.

6.3 Safety risk assessment and mitigation

6.3.1 A service provider will develop and maintain a formal process that ensures analysis, assessment and control of the safety risks of the consequences of hazards during the provision of its services
6.3.2 The safety risks of the consequences of each hazard identified through the hazard identification processes described in section 6.2 of this regulation will be analyzed in terms of probability and severity occurrence, and assessed for their tolerability.

6.3.3 The organization will define the levels of management with authority to make safety risk tolerability decisions.
6.3.4 The organization will define safety controls for each safety risk assessed as tolerable.

CHAPTER 7 – SAFETY ASSURANCE

7.1 General

7.1.1 An Operator will develop and maintain safety assurance processes to ensure that the safety risks controls developed as a consequence of the hazard identification and risk management activities identified in chapter 5 achieve their intended objectives.

7.1.2 Safety assurance processes will apply to the SMS of a service provider regardless as to whether the activities and/or operations are accomplished internally or outsourced to another organization.

7.1.3 Safety oversight

The CAAB has established mechanisms through the SMS checklist to ensure effective monitoring of the eight critical elements of the safety oversight function. The CAAB has also established mechanisms to ensure that the identification of hazards and the management of safety risks by service providers follow established regulatory controls (requirements, specific operating regulations and implementation policies). These mechanisms include inspections, audits and surveys to ensure that regulatory safety risk controls are appropriately integrated into the service provider's SMS, that they are being practiced as designed, and that the regulatory controls have the intended effect on safety risks

7.1.4 Safety performance indicators

7.1.4.1 An SMS defines measurable performance outcomes to determine whether the system is truly operating in accordance with design expectations and not simply meeting regulatory requirements. The safety performance indicators are used to monitor known safety risks, detect emerging safety risks and to determine any necessary corrective actions.

7.1.4.2 Safety performance indicators also provide objective evidence for the regulator to assess the effectiveness of the service provider's SMS and to monitor achievement of its safety objectives. The service provider's safety performance indicators consider factors such as the organization's safety risk tolerance, the cost/benefits of implementing improvements to the system, regulatory requirements and public expectations. Safety performance indicators should be selected and developed in consultation with the service provider's regulatory authority. This process is necessary to facilitate the regulator's aggregation and harmonization of the service provider's safety performance indicators for the same aviation sector.

7.1.4.3 The safety performance indicators and associated targets should be accepted by the CAAB responsible for the service provider's authorization, certification or designation. Safety performance indicators are supplementary to any legal or regulatory requirements and do not relieve service providers from their regulatory obligations.

7.1.4.4 In practice, the safety performance of an SMS is expressed by safety performance indicators and their corresponding alert and target values. The service provider should monitor the performance of current indicators in the context of historical trends to identify any abnormal changes in safety performance. Likewise, target and alert settings should take into consideration recent historical performance for a given indicator. Desired improvement targets should be realistic and achievable for the service provider and the associated aviation sector.

7.1.4.5 Establishing an alert level for a safety indicator is pertinent from a risk-monitoring perspective. An alert level is a common criteria to delineate the acceptable from the unacceptable performance regions for a particular safety indicator. As per generic safety metrics textbooks, a basic objective method for setting out-of-control (OOC) alert criteria is the use of the standard deviation principle. This method takes into consideration the standard deviation and average values of the preceding historical data points for a given safety indicator. These two values are then used to establish the alert level for the next monitoring period of the indicator.

7.1.4.6 A range of high-consequence as well as lower-consequence safety performance indicators provide a more comprehensive insight into the service provider's safety performance. This will ensure that high-consequence outcomes (e.g. accidents and serious incidents) as well as lower-consequence events (e.g. incidents, non-conformance reports, and deviations) are addressed. Safety performance indicators are essentially data trending charts that track occurrences in terms of event rates (e.g. number of incidents per 1 000 flying hours). High-consequence indicators should be addressed first while lower-consequence indicators may be developed at the more mature phase of SMS implementation.

7.1.4.7 Once safety performance indicators and their corresponding targets and alert settings have been defined, the performance outcome of each indicator should be updated and monitored on a regular basis. The target and alert level for each indicator may be tracked for their respective performance status. A consolidated summary of the overall target and alert performance outcome of the complete safety performance indicators package may also be compiled/aggregated for a given monitoring period. Qualitative values (satisfactory/unsatisfactory) may be assigned for each —target achieved and each —alert level not breached. Alternatively, numeric values (points) may be used to provide a quantitative measurement of the overall performance of the package of indicators. Examples of safety performance

7.2 Safety performance monitoring and measurement

Performance-based monitoring and measurement:

7.2.1 Monitoring and measurement of a performance-based process should be done through appropriate performance, quality or safety indicators that continuously track the performance of that process. Parameters for such performance tracking may be occurrence outcomes, deviations or any event types that reflect the safety, quality or risk level of the process. A data trending chart should be used to track such outcomes. Outcome occurrences should normally be tracked as occurrence rates rather than absolute numbers. In conjunction with such indicators, alert as well as desired improvement target levels should be set for each

indicator where applicable. These will serve as markers to define what is the abnormal/unacceptable occurrence rate as well as the desired target (improvement) rate for the indicator.

The alert level setting will effectively serve as the demarcation line between the acceptable trending region and the unacceptable region for a safety indicator. So long as the occurrence rate for a process does not trend beyond or breach the set alert level criteria, the number of such occurrences is deemed to be acceptable (not abnormal) for that monitoring period. On the other hand, the aim of a targeted improvement level is to achieve the desired improvement level within a defined future milestone or monitoring period. With such defined alert and target settings, it becomes apparent that a qualitative/quantitative performance outcome can be derived at the end of any given monitoring period. This may be done by counting the number of alert breaches and/or the number of targets achieved for an individual indicator and/or a package of safety indicators.

7.2.2 An operator will, as part of the SMS's safety assurance activities, develop and maintain the necessary means to verify safety performance of it's own organisation in reference to the safety performance indicators, and safety performance targets, and to validate the effectiveness of safety risk controls.

7.2.3 CAA Bangladesh will verify effective implementation of the process used by the Operator to ensure that the SPIs, targets and alerts are:

a) combination of high and lower-consequence SPIs as appropriate;
b) Pertinent to air operator's aviation activities;
c) Consistent with other air operators of the same category; and
d) Compatible with the state's SSP aggregate safety indicators for the category;

7.2.4 Safety performance monitoring and measurement means will include the following:

7.2.4.1 Safety reporting;
7.2.4.2 Safety audits;
7.2.4.3 Safety surveys;
7.2.4.4 Safety reviews;
7.2.4.5 Safety studies, and
7.2.4.6 Internal safety investigations

7.2.5 The safety reporting procedures will set out the conditions to insure effective reporting, including the conditions under which disciplinary/administrative action shall not apply.

7.3 Management of change

7.3.1 A service provider will, as part of the SMS's safety assurance activities, develop and maintain a formal process for the management of change.

7.3.2 The formal process for the management of change will:

7.3.2.1 Identify changes within the service provider's organization and organizational environment, which may affect established processes and services;

7.3.2.2 Describe the arrangements to ensure safety performance before implementing changes; and

7.3.2.3 Eliminate or modify safety risk controls that are no longer needed due to changes in the operational environment.

7.4 Continuous improvement of the safety system

7.4.1 A service provider will, as part of the SMS's safety assurance activities, develop and maintain formal processes to identify the causes of under-performance of the SMS, determine the implications in its operation, and eliminate such causes, in order to ensure the continual improvement of the SMS;

7.4.2 Continuous improvement of the service provider SMS will include:

7.4.2.1 Proactive and reactive evaluations of facilities, equipment, documentation and procedures, to verify the effectiveness of strategies for control of safety risks; and

7.4.2.2 Proactive evaluation of the individuals' performance, to verify the fulfillment of safet y responsibilities.

7.4.2.4 As part of the SMS acceptance process, the service provider's proposed safety performance indicators (SPIs) and their associated targets and alerts are reviewed and agreed upon by the CAA Bangladesh. It is also possible for the CAAB to accept an SMS implementation plan allowing for acceptance of a service provider's SPIs at a later phase of its SMS implementation process. In any case full acceptance of an SMS requires that the regulator be satisfied that the proposed SPIs are appropriate and pertinent to the individual service provider's aviation activities.

7.2.4.5 It is possible that this safety performance agreement process may subsequently include specific safety assessments to be performed or risk mitigation actions to be carried out by the service provider. This CAAB or global safety data.

7.2.4.6 There should be a periodic review of each service provider's SPIs and associated targets and alert settings. Such review should take into consideration the performance and effectiveness of each SPI and its associated target and alert settings. Any necessary adjustments to previously agreed SPIs, target or alert settings should be substantiated by appropriate safety data and be documented as appropriate.

CHAPTER 8 – SAFETY PROMOTION

8.1 General

8.1.1 Service providers will develop and maintain formal safety training and safety communication activities to create an environment where the safety objectives of the organization can be achieved.

8.2 Safety training

8.2.1 A service provider will, as part of its safety promotion activities, develop and maintain a safety training program that ensures that personnel are trained and competent to perform the SMS duties.

8.2.2 The scope of the safety training will be appropriate to the individual's involvement in the SMS.

8.2.3 The Accountable Executive will receive safety awareness training regarding:

8.2.3.1 Safety policies and objectives;

8.2.3.2 SMS roles and responsibilities;

8.2.3.3 SMS standards; and

8.2.3.4 Safety assurance.

8.3 Safety communication

8.3.1 A service provider will, as part of its safety promotion activities, develop and maintain formal means for safety communication, to:

8.3.1.1 Ensure that all staff is fully aware of the SMS;

8.3.1.2 Convey safety critical information;

8.3.1.3 Explain why particular safety actions are taken; and

8.3.1.4 Explain why safety procedures are introduced or changed.

8.3.1.5 Convey generic safety information

8.3.2 Formal means of safety communication will include:

8.3.2.1 Safety policies and procedures;

8.3.2.2 Newsletters;

8.3.2.3 Bulletins;

8.3.2.4 Classes;

8.3.2.5 Workshops; and

8.3.2.6 Seminars/ and

8.3.2.7 Websites.

CHAPTER 9 – QUALITY POLICY

9.1 Quality Policy

9.1.1 A service provider will ensure that the organization quality policy is Consistent with, and supports the fulfillment of the activities of the SMS.

CHAPTER 10 – IMPLEMENTATIONS OF THE SMS

10.1 Implementation of SMS

10.1.1 This regulation proposes, but does not mandate, a phased implementation of a service provider SMS, which encompasses four phases as described in paragraph 10.2 through paragraph 10.5 here under.

10.2 Phase 1

Planning will provide a blueprint on how the SMS requirements will be met and integrated to the organization's work activities, and an accountability framework for the implementation of the SMS:

10.2.1 Identify the accountable executive and the safety accountabilities of managers;
10.2.2 Identify the person (or planning group) within the organization responsible for implementing the SM;
10.2.3 Describe the system (Air operator, ATC services provider, approved maintenance service provider, certified aerodrome operator);
10.2.4 Conduct a gap analysis of the service provider's existing resources compared with the national and international requirements for establishing an SMS;
10.2.5 Develop an SMS implementation plan that explains how the service provider will implement the SMS on the basis of national requirements and international SARPs, the system description and the results of the gap analysis;

10.2.6 Develop documentation relevant to safety policy and objectives; and

10.2.7 Develop and establish means for safety communication.

10.3 Phase 2

Reactive processes will put into practice those elements of the SMS implementation plan that refer to the safety risk management reactive processes:

10.3.1 Hazard identification and risk management using reactive process; and

10.3.2 Training relevant to:

10.3.2.1 SMS implementation plan components; and
10.3.2.2 Safety risk management (reactive processes).

10.3.3 Documentation relevant to:

10.3.3.1 SMS implementation plan components; and
10.3.3.2 Safety risk management (reactive processes).

10.3.4 Documentation relevant to:

10.3.4.1 SMS implementation plan components; and
10.3.4.2 Safety risk management (reactive processes).

10.4 Phase 3

Proactive and predictive processes will put into practice those elements of the SMS Implementation plan that refer to the safety risk management proactive processes:

10.4.1 Hazard identification and risk management using proactive and predictive processes

10.4.2 Training relevant to:
10.4.2.1 SMS implementation plan components; and
10.4.2.2 Safety risk management (proactive and predictive processes).

10.4.3 Documentation relevant to:
10.4.3.1 SMS implementation plan components; and
10.4.3.2 Safety risk management (proactive and predictive processes).

10.5 Phase 4

Operational safety assurance will put into practice operational safety assurance:

10.5.1 Development and agreement on safety performance indicators and safety performance targets:
10.5.2 SMS continuous improvement;
10.5.3 Training relevant to operational safety assurance; and;
10.5.4 Documentation relevant to operational safety assurance and
10.5.5 Maintain means for safety communication

AOC CERTIFICATION AND RENEWAL CHECKLIST (OPERATIONS)
ASSESSMENT OF AIR OPERATOR SMSCHECKLIST/REPORT

CHECKLIST OPS-17	OPERATOR	
	LOCATION	
	FILE REFERENCE	
	INITIAL/RENEWAL	
	INSPECTOR	
	DATE	

Y=YES; N=NO; NA=NOT APPLICABLE

SL	CHECKING ITEM	REF	Y/N /NA	SL	CHECKING ITEM	REF	Y/N /NA	SL	CHECKING ITEM	REF	Y/N /NA
SMS COMPONENT 1: SAFETY POLICY AND OBJECTIVES											
SMS ELEMENT 1.1: MANAGEMENT COMMITMENT AND RESPONSIBILITIES											
SL	**Level 1**	REF	Y/N /NA	SL	**Level 2**	REF	Y/N /NA	SL	**Level 3**	REF	Y/N /NA
01	There is a documented safety policy statement.			02	There is evidence that the safety policy is communicated to all employees with the intent that they are made aware of their individual safety obligations.			03	There is a periodic review of the safety policy by senior management or the safety committee.		
04	The safety policy is relevant to aviation safety.			05	The safety policy is endorsed by the accountable manager.			06	The accountable manager's terms of reference indicate his overall responsibility for all safety issues.		
07	The safety policy is relevant to the scope and complexity of the			08	The safety policy addresses the provision of the necessary human and			09	----		

	organization's operations.				financial resources for its implementation.						
SMS ELEMENT 1.2: SAFETY ACCOUNTABILITIES											
SL	**Level 1**	REF	Y/N /NA	SL	**Level 2**	REF	Y/N /NA	SL	**Level 3**	REF	Y/N /NA
10	There is a documented safety (SMS) accountability within the organization that begins with the accountable manager.			11	The accountable manager's terms of reference indicates his ultimate responsibility for his organization's safety management			12	----		
13	The accountable executive has final authority over all the aviation activities of his organization.			14	The accountable manager's final authority over all operations conducted under his organization's certificate(s) is indicated in his terms of reference.			15	----		
16	There is a safety committee (or equivalent mechanism) that reviews the SMS and its safety performance.			17	For a large organization, there are departmental or section safety action groups that work in conjunction with the safety committee.			18	The safety committee is chaired by the accountable manager or (for very large organizations) by an appropriately assigned deputy, duly substantiated in the SMS manual.		
19	The safety committee includes relevant operational or departmental heads as applicable.			20	There is an appointed safety (SMS) coordinator within the safety action group.			21	The safety action groups are chaired by the departmental or section head where applicable.		
SMS ELEMENT 1.3: APPOINTMENT OF KEY SAFETY PERSONNEL											
SL	**Level 1**	REF	Y/N /NA	SL	**Level 2**	REF	Y/N /NA	SL	**Level 3**	REF	Y/N /NA

22	There is a manager who performs the role of administering the SMS.			23	The manager responsible for administering the SMS does not hold other responsibilities that may conflict or impair his role as SMS manager.			24	The SMS manager has direct access or reporting to the accountable manager concerning the implementatio n and operation of the SMS.		
25	The manager performing the SMS role has relevant SMS functions included in his terms of reference.			26	----			27	The SMS manager is a senior management position not lower than or subservient to other operational or production positions.		
SMS ELEMENT 1.4: EMERGENCY RESPONSE PLANNING											
SL	**Level 1**	REF	Y/N /NA	SL	**Level 2**	REF	Y/N /NA	SL	**Level 3**	REF	Y/N /NA
28	There is a documented ERP or equivalent operational contingency procedure.			29	The ERP includes procedures for the continuing safe production, delivery or support of aviation products or services during such emergencies or contingencies.			30	The ERP addresses relevant integration with external customer or subcontractor organizations where applicable.		
31	The ERP is appropriate to the size, nature and complexity of the organization.			32	There is a plan for drills or exercises with respect to the ERP.			33	There is a procedure for periodic review of the ERP to ensure its continuing relevance and effectiveness.		
34	The emergency plan addresses possible or likely emergency/cri sis scenarios relating to the organization's aviation			35	ERP drills or exercises are carried out according to plan and the result of drills carried out are documented.			36	----		
	product or service deliveries.										
SMS ELEMENT 1.5: SMS DOCUMENTATION											

SL	**Level 1**	REF	Y/N /NA	SL	**Level 2**	REF	Y/N/ NA	SL	**Level 3**	REF	Y/N /NA
37	There is an SMS document or exposition which is approved by the accountable manager and accepted by the CAA.			38	The SMS document is accepted or endorsed by the organization's national aviation authority.			39	The SMS procedures reflect appropriate integration with other relevant management systems within the organization, such as QMS, OSHE, security, as applicable.		
40	The SMS document provides an overview or exposition of the organization's SMS framework and elements.			41	The SMS document's exposition of each SMS element includes cross-references to supporting or related procedures, manuals or systems as appropriate.			42	The SMS procedures reflect relevant coordination or integration with external customer or subcontractor organizations where applicable.		
43	The SMS document is a stand-alone controlled document or a distinct part/section of an existing CAA endorsed/acce pted document.			44	Records are maintained pertaining to safety committee/SA G meeting (or equivalent) minutes.			45	There is a process to periodically review the SMS exposition and supporting documentation to ensure their continuing relevance.		
46	All components and elements of SMS regulatory requirements are addressed in the SMS document.			47	Records pertaining to periodic review of existing safety/risk assessments or special review in conjunction with relevant changes are			48	----		

					available.						
49	Records are maintained pertaining to safety risk assessments performed.			50	----			51	----		
52	Records pertaining to identified or reported hazards/threats are maintained.			53	----			54	----		
SMS COMPONENT 2: SAFETY RISK MANAGEMENT											
SMS ELEMENT 2.1: HAZARD IDENTIFICATION											
SL	**Level 1**	REF	Y/N /NA	SL	**Level 2**	REF	Y/N/ NA	SL	**Level 3**	REF	Y/N /NA
55	There is a procedure for voluntary hazards/threats reporting by all employees.			56	In the hazard identification system, there is a clear definition of and distinction between hazards and consequences.			57	There is a procedure to identify hazards/threats from internal incident/accident investigation reports for follow-up risk mitigation where appropriate.		
58	There is a procedure for incident/accident reporting by operational or production personnel.			59	The hazard reporting system is confidential and has provisions to protect the reporter's identity.			60	There is a procedure to review hazards/threats from relevant industry service or incident/accident reports for risk mitigation where applicable.		
61	There is a procedure for investigation of incident/accidents relating to quality or safety.			62	The organization's internal investigation and disciplinary procedures distinguish between premeditated and deliberate violations and unintentional errors and			63	There is a procedure for periodic review of existing risk analysis records.		

					mistakes.						
SMS ELEMENT 2.2: SAFETY RISK ASSESSMENT AND MITIGATION											
SL	**Level 1**	REF	Y/N /NA	SL	**Level 2**	REF	Y/N/ NA	SL	**Level 3**	REF	Y/N /NA
64	There is a documented HIRM procedure involving the use of objective risk analysis tools.			65	Risk assessment reports are approved by departmental managers or at a higher level where appropriate.			66	----		
67	There is a procedure for identification of operations, processes, facilities and equipment which are deemed (by the organization) as relevant for HIRM.			68	Recommended mitigation actions which require senior management decision or approval are accounted for and documented.			69	----		
70	There is a programme for progressive HIRA performance of all aviation safety-related operations, processes, facilities and equipment as identified by the organization.			71	There is a procedure to prioritize HIRA performance for operations, processes, facilities and equipment with identified or known safety-critical hazards/risks.			72	There is evidence of progressive compliance and maintenance of the organization's HIRA performance programme.		
SMS COMPONENT 3: SAFETY ASSURANCE											
SMS ELEMENT 3.1: SAFETY PERFORMANCE MONITORING AND MEASUREMENT											
SL	**Level 1**	REF	Y/N /NA	SL	**Level 2**	REF	Y/N/ NA	SL	**Level 3**	REF	Y/N /NA
73	There are identified safety performance indicators for measuring and monitoring the organization's safety performance.			74	There are lower-consequence safety performance indicators (e.g. non-compliance, deviation events).			75	There is a procedure for corrective or follow-up action to be taken when targets are not achieved and/or alert levels are breached.		
76	There are high-consequence data-based			77	There are alert and/or target level settings within the			78	Safety performance indicators are reviewed by		

	safety performance indicators (e.g. accident and serious incident rates).				safety performance indicators where appropriate.				the safety committee for trending, alert levels that have been exceeded and target achievement where applicable.		
SMS ELEMENT 3.2: THE MANAGEMENT OF CHANGE											
SL	**Level 1**	REF	Y/N /NA	SL	**Level 2**	REF	Y/N/ NA	SL	**Level 3**	REF	Y/N /NA
79	There is a procedure for review of relevant existing aviation safety-related facilities and equipment (including HIRA records) whenever there are pertinent changes to those facilities or equipment.			80	There is a procedure for review of new aviation safety-related facilities and equipment for hazards/risks before they are commissioned.			81	There is a procedure for review of relevant existing facilities, equipment, operations or processes (including HIRM records) whenever there are pertinent changes external to the organization such as regulatory/industry standards, best practices or technology.		
82	There is a procedure for review of relevant existing aviation operations and processes (including HIRA records) whenever there are pertinent changes to those operations or processes.			83	There is a procedure for review of new aviation safety-related operations and processes for hazards/risks before they are commissioned.			84	----		
SMS ELEMENT 3.3: CONTINUOUS IMPROVEMENT OF THE SMS											
SL	**Level 1**	REF	Y/N /NA	SL	**Level 2**	REF	Y/N/ NA	SL	**Level 3**	REF	Y/N /NA
85	There is a procedure for periodic			86	There is a follow-up procedure to			87	SMS audit/assessment has been		

	internal audit/assessment of the SMS.				address audit corrective actions.				carried out according to plan.		
88	There is a current internal SMS audit/assessment plan.			89	----			90	There is a process for SMS audit/assessment reports to be submitted or highlighted for the accountable manager's attention when necessary.		
91	There is a documented internal SMS audit/assessment procedure.			92	The SMS audit plan includes the sampling of completed safety assessments.			93	The SMS audit plan covers the SMS roles/inputs of contractors where applicable.		
SMS COMPONENT 4: SAFETY PROMOTION											
SMS ELEMENT 4.1 & 4.2: TRAINING AND COMMUNICATION											
SL	**Level 1**	REF	Y/N /NA	SL	**Level 2**	REF	Y/N /NA	SL	**Level 3**	REF	Y/N /NA
94	There is a documented SMS training/familiarization policy for personnel.			95	Personnel involved in conducting risk evaluation are provided with appropriate risk management training or familiarization.			96	There is evidence of organization-wide SMS education or awareness efforts.		
97	The manager responsible for SMS administration has undergone an appropriate SMS training course.			98	Personnel directly involved in the SMS (safety committee/SAG members) have undergone appropriate SMS training or familiarization.			99	There is evidence of a safety (SMS) publication, circular or channel for communicating safety and SMS matters to employees.		
100	The accountable manager has undergone appropriate SMS familiarization,				----				----		

training.

OBSERVATION	LEVEL-1	LEVEL-2	LEVEL-3	TOTAL
YES (Y)				
NO (N)				
NOT APPLICABLE (N/A)				
NUMBER OF QUESTIONS COMPLETED				
PERCENTAGE OF ASSESSMENT	**TOTAL Y / (Y+N)%**			

INSPECTOR COMMENT:

☐ SATISFACTORY
☐ NOT SATISFACTORY

Date: ……..

SIGNATURE OF INSPECTOR

SMS Manual CAAB Acceptance

MANUAL NAME :

ISSUE NUMBER :

REVISION NUMBER :

ISSUE DATE :

Accepted by :

Title :

Date :

Signature :

Official Stamp

Director of Flight Safety and Regulations