

**Kingdom of Saudi Arabia
General Authority of Civil Aviation**

GACA REGULATION

Section 21 Safety Management Systems (SMS)

Edition 2.0

FOREWORD

The following Regulation on Safety Management Systems (SMS) are based on Articles 2, 3, 4, 5, 23, 35, 80, and 101 of the Civil Aviation Act that has been approved by the Council of Ministers Resolution No. 185 dated 17/07/1426H and issued by the Royal Decree No. M/44 dated 18/07/1426H, and are in accordance with ICAO Safety Management Manual (Doc 9859), and the requirements of GACA Regulations and ICAO Annex 6 — Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes, and Part III — International Operations — Helicopters, Annex 8 — Airworthiness of Aircraft ICAO Annex 11 — Air Traffic Services, and ICAO Annex 14 — Aerodromes, Volume I — Aerodrome Design and Operations).

The promulgation of this regulation is based on the authority granted in Article 179 of the Civil Aviation Act, and is issued under the authority of the President, General Authority of Civil Aviation, as a duly delegated representative of the GACA Board of Directors, in accordance with Order No.T-41, dated 30/12/1429H (28/12/2008G).

The General Authority of Civil Aviation is responsible for the preparation and distribution of all regulations in sufficient quantities so that all service providers and aircraft operators based in the Kingdom of Saudi Arabia are able to obtain an authentic copy prior to the effective date of the Regulation.

APPROVED:

Original Signed by

Fahad Bin Abdullah Al-Saud

President, General Authority of Civil Aviation
Kingdom of Saudi Arabia

Effective Date: 15 November 2012

CONTENT RULES**1) Organization Structure:**

GACA has established Safety Department (SD) within the Safety and Economic Regulation Sector (S&ER) to carry out the function of safety regulation of aviation service providers' safety management systems and to ensure and enforce compliance with GACAR Section 21.

2) Rules of Construction

- a) To avoid any misunderstanding within this regulation, certain words are to be interpreted as having specific meanings when they are used, unless the context requires otherwise:
 - (1) words importing the singular include the plural;
 - (2) words importing the plural include the singular; and
 - (3) words importing the masculine gender include the feminine.
- b) In this regulation, the following protocol is used:
 - (1) the words "**shall**" and "**must**" indicate that compliance is compulsory;
 - (2) The word "**should**" indicates a recommendation. It does not mean that compliance is optional but rather that, where insurmountable difficulties exist, the GACA- S&ER may accept an alternative means of compliance, provided that an acceptable safety assurance from the Air Navigation Services shows that the safety requirements will not be reduced below that intended by the requirement.
 - (3) The word "**Can**" or "**May**" is used in a permissive sense to state authority or permission to do the act prescribed, and the words "no person may * * *" or "a person may not * * *" mean that no person is required, authorized, or permitted to do the act prescribed;
 - (4) The word "**will**" is used to express the future; and
 - (5) The word "**includes**" means "**includes but is not limited to**".

AMENDMENT PROCEDURE

The existing General Authority of Civil Aviation Regulations (GACAR) will be periodically reviewed to reflect the latest updates of International Civil Aviation Organization (ICAO) Standards and Recommended Practices (SARPs); it will be also amended to reflect the latest aviation safety provisions issued by Regional and International Civil Aviation Organizations. A complete revised edition incorporating all amendments will be published every three years from the original effective date of this regulation. The amendment procedure shall be as follows;

1. When the General Authority of Civil Aviation (GACA) receives an amendment to any of the current ICAO Annexes that can affect the provisions of this regulation, it will be forwarded by the Vice President of International Organization Affairs to the Vice President, Safety and Economic Regulation (S&ER) who in turn will provide a copy of this amendment to the concerned department for study and comments taking into account the ICAO deadline for the reply.
2. When any GACA department or stakeholder proposes an amendment to this regulation, it will send a letter with the proposed amendment including a clear justification and argument for such amendment. Following the receipt of an amendment proposal, the S&ER will analyze this proposal and forward its comments and any proposed decision action to the S&ER Vice President.
3. An accepted amendment proposal will be prepared as draft amendment to the GACAR-Section 21 and forwarded to the originator of the amendment proposal and concerned GACA department (s) for further review and comment within a specified timeline.
4. All accepted amendments will be drafted in the form of Notices of Proposed Amendments (NPA) and forwarded to all concerned parties including stakeholders for comment within a two-month reply period. The NPA shall indicate the proposed Amendment's effective date.
5. Following the receipt of NPA replies, the S&ER will analyze the comments received and produce a new draft in consultation with the concerned GACA department. The final draft will be submitted to President of the General Authority of Civil Aviation for formal approval prior to publication.
6. The Amendment's effective date will take into account the comments of all the concerned parties and stakeholders.
7. Any differences between the GACAR Section 21 new amendment and ICAO Annexes Standards and Recommended Practices will be forwarded to ICAO as a Difference and published as it is in the Aeronautical Information Publication (AIP).
8. All concerned parties and stakeholders will be provided a copy of the new amendment and will be requested to update their copy of the GACAR Section 21 accordingly.
9. It is the responsibility of all concerned parties to keep their copy of GACAR-Section 21 and other GACA regulation publication up to date.

SUPPLEMENTARY REGULATIONS

From time to time it will be necessary to issue regulations which supplement or augment the GACA Regulations. The following procedures will apply:

1. Supplementary regulations will be issued in the form of a GACA Regulation Circular (RC).
2. The GACA Regulation Circular will be approved by the President.
3. The process for preparation and publishing of the GACA Regulation Circular will be addressed in the GACA Quality System Manual.



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AMENDMENT RECORD

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CHAPTER 1 – DEFINITIONS**1.1 Definitions**

When the following terms are used in this regulation, they shall have the following meanings:

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.

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.

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.

AIS:

Aeronautical Information Service, A service established within a defined area of coverage responsible for the provision of aeronautical information and data necessary for the safety, regulatory, and efficiency of air navigation.

ALARP:

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

ANSP:

Air Navigation Service Provider Any provider of:

- a) Air Traffic Control (ATC) service;
- b) Flight Information Service (FIS);
- c) Air Traffic Advisory service;
- d) Air Traffic Alerting service;
- e) Aeronautical Information Service (AIS);
- f) Meteorological service; or
- g) Communications, Navigation or Surveillance (CNS) services.

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 Services 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.

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.

Gap Analysis:

Identification of existing safety components compared to SMS program requirements.

Hazard:

Any condition, object or activity with the potential of causing 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 would affect, the safety of operation.

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.

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.

Occurrence:

- Any accident or incident
- Any situation or condition that could, if left unattended, induce an accident or incident

Organization:

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

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.

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 risk of harm to persons or property damage is reduced to, and maintained at or below, an acceptable level through a continuing process of hazard identification and 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 Management System (SMS):

The formal, top-down business-like approach to managing safety risk. It includes systematic procedures, practices, and policies for the management of safety (as described in this document it includes safety risk management, safety policy, safety assurance, and safety promotion).

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, generally expressed in terms of the frequency of occurrence of some event causing harm.

Safety Performance Target:

The required level of safety performance for a system comprises one or more safety performance indicators, together with desired outcomes expressed in terms of those indicators.

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 a Safety Objective.

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 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

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 Safety Program:

An integrated set of regulations and activities aimed at improving safety

System:

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.

TLS:

Target Level of Safety A safety objective defined as a tolerable accident rate in terms of probability of an accident given a certain quantity of activity.

1.2 Abbreviations

AMODA	Assistant Minister of Defence and Aviation for Civil Aviation Affairs
ANS	Air Navigation Services
ATS	Air Traffic Services
ICAO	International Civil Aviation Organization
IIC	Investigator-in-Charge
GACA	General Authority of Civil Aviation
GACAR	GACA Regulation
GM	General Manager
KSA	Kingdom of Saudi Arabia
RSAF	Royal Saudi Air Force
SD	Safety Department
SDCPS	Safety Data Collection and Processing Systems
SMS	Safety Management System
S&ER	Safety and Economic Regulation
VP	Vice President
UTC	Universal Coordinated Time



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 GACA Regulations and ICAO Annex 6 — Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes, 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 shall have in place a safety management system (SMS) that is acceptable to the General Authority of Civil Aviation of the Kingdom of Saudi Arabia, that, as a minimum:

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; and

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 General Authority of Civil Aviation of the Kingdom of Saudi Arabia, 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 of GACA Regulations and ICAO Annex 6 — Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes, and Part III — International Operations — Helicopters, Annex 8 — Airworthiness of Aircraft ICAO Annex 11 — Air Traffic Services, and ICAO Annex 14 — Aerodromes, Volume I — Aerodrome Design and Operations).

3.2 GACA References

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



CHAPTER 4 – GENERAL**4.1 General**

4.1.1 The Service provider shall 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 shall define the organization's safety policy.
- 5.1.2 The safety policy shall be signed by the Accountable Executive of the organization.
- 5.1.3 The safety policy shall include the responsibilities of management and employees with respect to the safety performance of the SMS.
- 5.1.4 The safety policy shall include a clear statement about the provision of the necessary resources for its implementation.
- 5.1.5 The safety policy shall be communicated, with visible endorsement, throughout the organization.
- 5.1.6 The safety policy shall also include, inter alia:
 - 5.1.6.1 A commitment to continual improvement in the level of safety;
 - 5.1.6.2 The hazard reporting procedures; and
 - 5.1.6.3 The conditions under which disciplinary action would be not be applicable following hazard reporting by employees.
- 5.1.7 The safety policy shall be in accordance with all applicable legal requirements and international standards, best industry practices and shall reflect organizational commitments regarding safety.
- 5.1.8 The safety policy shall be reviewed periodically to ensure it remains relevant and appropriate to the organization.
- 5.1.9 A service provider shall establish safety objectives for the SMS.
- 5.1.10 The safety objectives should 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 shall 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 shall be a single, identifiable person who, irrespective of other functions, shall have ultimate responsibility and accountability, on behalf of the [organization], for the implementation and maintenance of the SMS
- 5.2.3 The Accountable Executive shall 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; and
 - 5.2.3.5 Final responsibility for all safety issues.
- 5.2.4 A service provider shall establish the necessary organizational arrangements for the implementation, adherence and maintenance of the organization's SMS.

5.2.5 A service provider shall 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 shall be defined, documented and communicated throughout the organization.

5.2.7 A service provider shall 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 shall *inter alia*:

5.2.8.1 Ensure that processes needed for the SMS are 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 shall 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 shall 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 shall 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 shall 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 shall, as part of the SMS documentation, complete a system description..

5.4.3 The system description shall include the following:

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

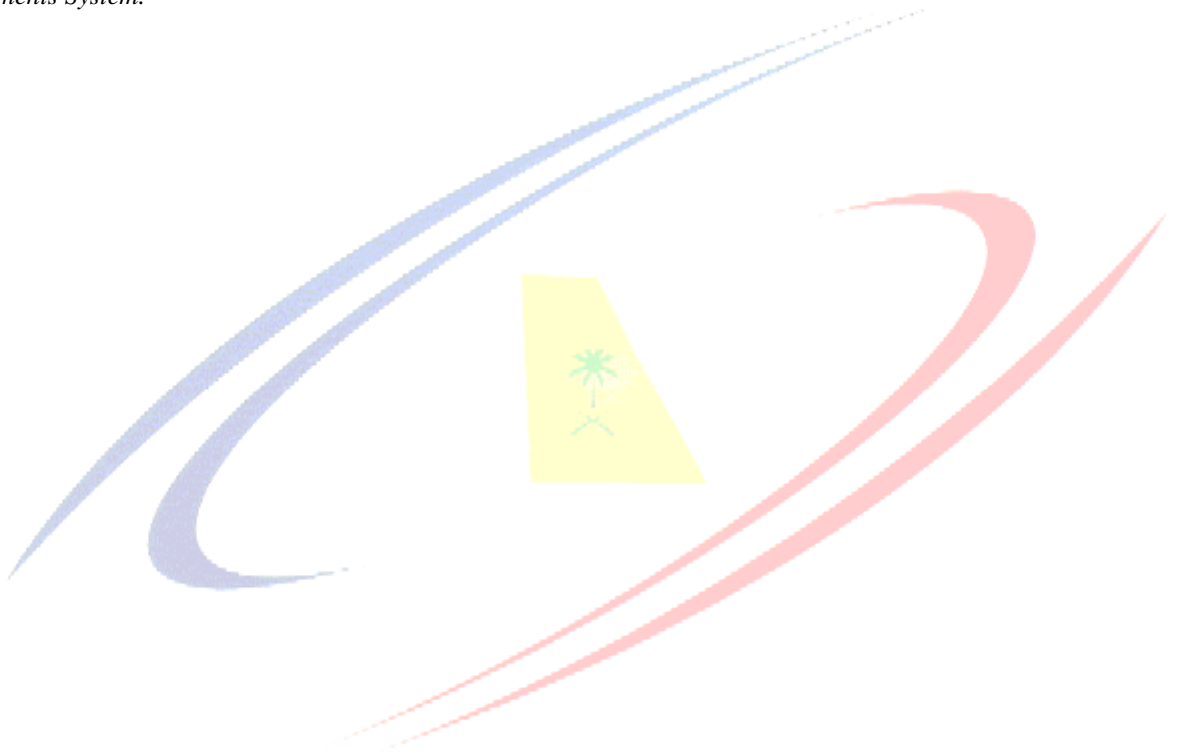
5.4.3.2 The system functions;

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 shall, 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 shall, as part of the SMS documentation, develop, adhere to and maintain an SMS implementation plan
- 5.4.6 The SMS implementation plan shall 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 shall 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 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 shall be endorsed by senior management of the organization.
 - 5.4.9.1 A service provider shall, 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 shall 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, Operator's Flight Safety Documents System.



CHAPTER 6 – SAFETY RISK MANAGEMENT**6.1 General**

6.1.1 A service provider shall develop and maintain a formal process that ensures that hazards in operations are identified.

6.1.2 A service provider shall 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 shall include reactive, proactive and predictive methods of safety data collection.

6.2 Hazard identification

6.2.1 A service provider shall 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 shall 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 shall 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 shall be analyzed in terms of probability and severity of occurrence, and assessed for their tolerability.

6.3.3 The organization shall define the levels of management with authority to make safety risk tolerability decisions.

6.3.4 The organization shall define safety controls for each safety risk assessed as tolerable.

CHAPTER 7 – SAFETY ASSURANCE**7.1 General**

7.1.1 A service provider shall 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 shall 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..

7.2 Safety performance monitoring and measurement

7.2.1 A service provider shall, as part of the SMS's safety assurance activities, develop and maintain the necessary means to verify safety performance of the service provider in reference to the safety performance indicators, and safety performance targets, and to validate the effectiveness of safety risk controls.

7.2.2 Safety performance monitoring and measurement means shall include the following:

7.2.2.1 Safety reporting;

7.2.2.2 Safety audits;

7.2.2.3 Safety surveys;

7.2.2.4 Safety reviews;

7.2.2.5 Safety studies, and

7.2.2.6 Internal safety investigations

7.2.3 The safety reporting procedures shall 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 shall, 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 shall:

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 shall, 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 shall 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 safety responsibilities.



CHAPTER 8 – SAFETY PROMOTION

8.1 General

8.1.1 Service providers shall 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 shall, 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 shall be appropriate to the individual's involvement in the SMS.

8.2.3 The Accountable Executive shall 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 shall, 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 shall include:

8.3.2.1 Safety policies and procedures;

8.3.2.2 News letters;

8.3.2.3 Bulletins;

8.3.2.4 Classes;

8.3.2.5 Workshops; and

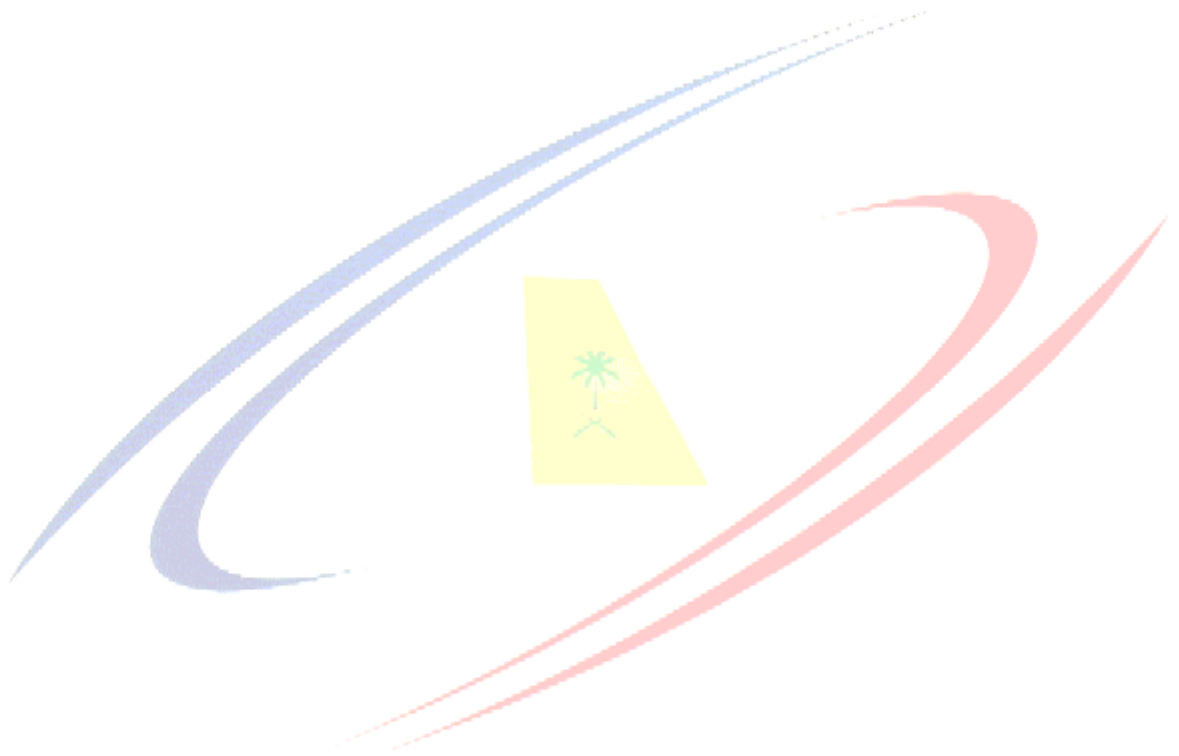
8.3.2.6 Seminars/ and

8.3.2.7 Websites.

CHAPTER 9 – QUALITY POLICY

9.1 Quality Policy

9.1.1 A service provider shall ensure that the organization quality policy is consistent with, and supports the fulfilment 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 hereunder.

10.2 Phase 1

Planning should 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 SMS;
- 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 should 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 should 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 should 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.