



**CIVIL AVIATION REGULATIONS
AIR NAVIGATION SERVICES**

Part 10B

Governing

**REGULATORY REQUIREMENTS FOR
ATM SERVICE PROVIDERS**

CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
Old MIA Road, Pasay City 1301
Metro Manila

Certified Original:

A handwritten signature in black ink, appearing to read "Ruben F. Ciron".

Ruben F. Ciron, PhD
Director General

UNCONTROLLED COPY

PART 10B

REGULATORY REQUIREMENTS FOR ATM SERVICE PROVIDERS

Certified Original:



Ruben F. Ciron, PhD
Director General

Issue 1

10-21

22 JUNE 2009

UNCONTROLLED COPY

10.7 STANDARDS FOR AIR TRAFFIC MANAGEMENT

Air Traffic Management providers in the Philippines shall subscribe to the standards set out in the Civil Aviation Regulations –Air Navigation Services (CAR-ANS). The CAR-ANS are based on relevant ICAO annexes for air traffic services, aeronautical information, search and rescue service and meteorological service. Air Traffic Management in this context involves the following components; air traffic service, aeronautical information service, search and rescue service, and meteorological service.

Regulatory standards for ATM service providers.

| ATM Component | CAAP Regulation/Standard |
|--|--|
| Air Traffic Services | CAR-ANS Part 11 CAR-ANS Part 2 & 13 PCAR Part 2 & Part 8 |
| Aeronautical Information Service a) Aeronautical charts | CAR-ANS Part 15 CAR-ANS Part 4 |
| Search and Rescue | CAR-ANS Part 12 |
| Aeronautical Meteorological Service | CAR-ANS Part 3 |

The CAAP relevant regulatory body in ensuring the implementation of CAAP standards and regulations shall develop specific regulations and/or guidance materials whenever necessary or may as appropriate, adopt standards and recommended practices, procedures, and guidance materials from International Civil Aviation Organization's (ICAO) or other aviation organizations.

Related ICAO documents:

Annex 1 - Personnel Licensing
 Annex 2 - Rules of the Air
 Annex 3 - Meteorology
 Annex 4 - Aeronautical Charts
 Annex 5 – Units of Measurement
 Annex 10 Vol. 2 - Aeronautical Telecommunications -
 Annex 10 Vol. 5 - Aeronautical Telecommunications -
 Annex 11 - Air Traffic Services
 Annex 12 - Search and Rescue
 Annex 14 Vol. 1 - Aerodromes
 Annex 15 - Aeronautical Information Services

10.8 GENERAL REQUIREMENTS FOR ATM PROVIDERS**10.8.1 Manual of Operations**

ATM service providers shall develop and provide its facilities with the approved operations manual in conformance with CAAP relevant regulatory standards.

10.8.2 Compliance to standards

In the event where service providers cannot meet CAAP regulatory standards and safety requirements despite best efforts, service providers shall file for exemption in accordance with *Chapter 7 of Manual of Aerodrome Regulatory Procedures*.

10.8.3 Service Providers' issuance of exemptions

Service providers shall establish policies and procedures on issuance of exemption/s to its clients. The policies shall cover those areas where safety is critical to ensure that procedures, processes or systems safety requirements are in place (*refer to SMS requirements in 10.9.7*).

10.8.4 Staffing and Training

10.8.4.1 Service providers shall develop policies and procedures in the selection, hiring and retention of qualified and experienced technical staff.

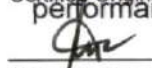
10.8.4.2 Service providers shall ensure that relevant regulatory standards/publications, operation manuals and ICAO documents are readily available to technical staff

10.8.4.3 Service providers shall ensure that technical personnel involved ATM operation holds necessary qualification and license (when applicable) provided for under CAR Part 2 and relevant Civil Service rules and regulations.

10.8.4.4 Service providers shall ensure that its technical staff are appropriately trained by establishing training programmes including refresher trainings and when applicable initial, recurrent or specialized training.

10.8.4.5 Service providers shall adopt a system for assessing the competency/proficiency of its technical personnel not only in the performance of their regular duties but also during abnormal

Issue 1


Ruben F. Ciron, PhD
Director General

10-23

22 JUNE 2009

conditions, and whenever new equipment, procedures, and updated communications are implemented.

10.8.5 Record keeping and documentation

10.8.5.1 Service providers shall establish a system for the recording and retention of data. Records shall include but not limited to:

- a) ATS data;
- b) procedure design documentation;

10.8.5.2 Service providers shall establish mechanism that ensures reports and personnel records are maintained and updated and shall include:

- a) details of personnel qualification and experience;
- b) job descriptions;
- c) training reports and training records of all members of the organization, including management;
- d) internal and external audit reports; and
- e) management review meetings and reports.

10.8.6 Safety Audits and Inspections

10.8.6.1 Section 35 (g), Chapter 7 of RA 9497 (Powers and functions of the Director General), through Aerodrome and Air Navigation Safety Oversight Office (AANSOO), all ATM Services/Air Navigation Facilities are subject to CAAP/Aerodrome and Air Navigation Safety Oversight Office (AANSOO) Audit.

10.8.7 Access to ATM, CNS and Aerodrome facilities

10.8.7.1 Safety Oversight Auditors/Inspectors in the exercise of their functions shall have full access to ATM, CNS and Aerodrome facilities to:

- a) Verify the safety level of the service/operation/facility.
- b) Inspect and conduct tests on their facilities, equipment, services or operating procedures, inspect their documents and records, and verify their Safety Management System as applicable for the purpose of aviation safety; and
- c) Any part of their facilities, equipment, records, and documentation for the purpose referred to in paragraph (a) and (b) above.

10.8.7.2 CAAP must give reasonable notice to the operator or service provider about the tests to be conducted and carry out the tests at a reasonable time.

10.8.8 Resolution of Safety Deficiencies

- 10.8.8.1 Deficiencies/Findings affecting aviation safety identified by CAAP/AANSOO Auditor shall be resolved on a predetermined time acceptable to both the service provider and AANSOO. Should necessary corrective actions were not accomplished within reasonable time, the matter shall be reported to the Director General for a decision.

10.8.10 Air Navigation (ATM) Facility Certification/Rating (Reserved)

Pursuant to Section 35 (g), Chapter 7 of RA 9497, as promulgated in Section 27 (The Responsibility and Powers of the Director General) of the IRR, the Director General shall issue an Air Navigation Facility Certification/Rating to air navigation facilities operating within the Philippines to determine the compliance of its operation based on prescribed standards and required practices to assure safety in air transport.

10.8.11 Distribution of Guidance Material/Information


The service provider must have a procedure for the formulation and distribution of guidance material especially safety critical information to technical personnel to enable them to perform their functions in accordance with the established requirements and in standardized manner.

10.8.12 Human Factors Considerations

Human Factors principle shall be observed in the design and operation of air traffic management i.e., ATS, SAR, AIS and MET (refer to CAAP policy on human factors MC 08-09 dated August 6, 2009)

Note: Additional guidance material on Human factors principles can be found in Human Factors training manual (Doc 9863) and Circular 249 (Human Factors Digest No. 11 – Human Factors in CNS/ATM Systems).

Certified Original:



Ruben F. Ciron, PhD
Director General

Issue 1

10-25

22 JUNE 2009

UNCONTROLLED COPY

10.9 SAFETY REQUIREMENTS FOR ATS PROVIDER**10.9.1 Requirement for read-back of safety related parts and relevant information of ATC clearances and instructions**

ATS service provider shall ensure that read-back requirements in accordance with 11.3.7.3 of CAR-ANS Part 11 are adhered to.

10.9.2 Requirements for the control of movement of persons or vehicles on the maneuvering area of the aerodrome

ATS service provider shall ensure that the procedures for the control of persons or vehicles on the maneuvering area of the aerodrome are established and implemented in accordance with the provisions of 11.6.3 of CAR-ANS Part 11.

10.9.3 Requirements for coordination, communication and information for service providers.**10.9.3.1 Service providers shall ensure that policies and procedures are established and implemented for coordination with;**

- a) Air operators, refer to 11.2.16, CAR-ANS Part 11
- b) Military authorities, refer to 11.2.17, CAR-ANS Part 11
- c) Meteorological services, refer to 11.2.20, CAR-ANS Part 11
- d) Aeronautical information services, 11.2.21, CAR-ANS Part 11

10.9.3.2 Service providers shall ensure that communication requirements for operations are established and implemented in accordance with 11.6, CAR-ANS Part 11.**10.9.3.3 Service providers shall ensure that policies and procedures are established and implemented for the prompt supply of meteorological information, information on aerodrome condition, operational status of associated facilities and navigational aids are in accordance with 11.7, CAR-ANS Part 11.****10.9.4 Requirements for emergency events and contingency planning****10.9.4.1 Service providers shall ensure policies and procedures are established and implemented for providing service to aircraft in the event of emergency specified in 11.2.23 of CAR-ANS Part 11.****10.9.4.2 Service providers shall develop and establish contingency plans and/or arrangements in the event of disruption or potential disruption**

of ATS or related supporting services in accordance with 11.2.30, CARA-ANS Part 11.

10.9.4.3 Service providers shall establish procedures to assist and to safeguard strayed unidentified aircraft in accordance with 11.2.24 of CAR-ANS Part 11.

10.9.4.4 Service providers shall ensure that ATC contingency procedures are established for ;

- a) Radio communication contingencies
- b) Emergency separation
- c) Short-term conflict alert (STCA)
- d) Minimum safe altitude (MSAW)

10.9.5 Requirement for ATS system capacity

10.9.5.1 ATS provider/s shall establish and implement policy and procedures in determining the capacity of ATS system including the required number of ATS staff to ensure the provision of adequate ATS system.

10.9.5.2 Service providers shall ensure that their facilities and operations are provided with adequate qualified technical staff. The adequacy of technical staff shall be based on the system capacity determined in item 10.8.8.1.

10.9.6 Regulatory criteria for procedure design


10.9.6.1 Service provider shall ensure that construction of visual and instrument flight procedures and applicable procedures for air navigation services and operations (PANS-OPS) shall be in accordance with PANS Doc. 8168 Vol. II.

10.9.6.2 Service provider shall carry out flight inspections of instrument flight procedures, including obstacle checks in accordance with CAR-ANS Part 14 (*Flight Inspections Regulatory Requirements and Procedures*).

10.9.7 Safety Management System

10.9.7.1 A service provider shall have, and put into effect, a safety management system acceptable to CAAP that includes the policies, procedures, and practices necessary in the safe provision of air traffic services in accordance with Appendix 1 to CAR-ANS Part 10 B.

Certified Original:


Ruben F. Ciron, PhD
Director General

Issue 1

10-27

22 JUNE 2009

- 10.9.7.2 The service provider shall conduct regular reviews of its safety management system and shall take corrective action/s as necessary to ensure that it operates properly.
- 10.9.7.3 The service provider's SMS shall ensure that safety assessment is carried out for any significant safety-related change to ATM system..
- 10.9.7.4 The service provider's SMS shall ensure that safety reviews are being conducted regularly by appropriately qualified personnel.
- 10.9.7.5 The Service provider shall ensure that a system for reporting air traffic incidents is established and implemented.
- 10.9.1.6 Service providers shall establish and implement a runway safety programme commensurate to the size and complexity of its organization (*Guidance material in establishing a runway safety programme is contained in AANSOO memorandum circular xxx...*)

10.10 REQUIREMENTS FOR AERONAUTICAL INFORMATION SERVICE

- 10.10.1 AIS provider shall develop and implement a recognized quality system.
- 10.10.2 The quality system shall address the data quality requirements for publication resolution and data integrity in accordance with the provisions of CAR-ANS Part 15.
- 10.10.3 AIS provider shall published an aeronautical information publication (AIP) in accordance with Appendix 15A of CAR-ANS Part 15.
- 10.10.4 AIS provider shall ensure that the aeronautical information regulation and control (AIRAC) system is being used to notify the establishment, withdrawal and premeditated significant changes of circumstances listed in Appendix 15C of CAR-ANS Part 15.
- 10.10.5 AIS provider where appropriate shall coordinate with the unit/office responsible for PANS-OPS in the formulation of aeronautical charts and ensure that aeronautical data quality requirements on data integrity and charting resolution are in accordance with the provisions in Tables 1 to 5, Appendix 6, CAR-ANS Part 4.


10.11 REQUIREMENTS FOR METEOROLOGICAL SERVICE

- 10.11.1 Meteorological services provider shall ensure that a properly organized quality system is established and implemented.
- 10.11.2 Meteorological services provider shall ensure that wind sensors are sited and located to give the best practicable indication of wind conditions along the runway/touchdown zone as provided in 3.4.6.1 of CAR-ANS Part 3.
- 10.11.3 Meteorological services provider in coordination with ATS providers and/or aerodrome operators shall establish mechanism on the issuance of wind shear warnings to aerodromes where wind shear is considered a safety factor.
- 10.11.4 Meteorological service provider in coordination with ATS provider shall ensure that regulatory criteria for special observation are promulgated.

10.12 REQUIREMENTS FOR SEARCH AND RESCUE SERVICE (SAR)

- 10.12.1 SAR provider shall ensure that the established Rescue Coordination Center (RCC) is staffed 24 hours a day by trained and qualified personnel proficient in the use of the language used for radiotelephony.
- 10.12.2 The Rescue Coordination Center shall ensure:
- a) detailed plans of operation are prepared for the conduct of SAR operations within its Search and Rescue Region (SRR).
 - b) That means of plotting are provided and charts which apply to the SRR (aeronautical, nautical, topographic and hydrographic) are available;
 - c) it has the ability to receive distress alerts;
 - d) immediate communications with associated ATS units, and when available with associated rescue sub centers, direction finding (DF) and position fixing stations and associated crash and rescue services (CRSs); and
 - e) rapid and available communications with search and rescue units (SRUs), adjacent SRRs, designated MET offices, and alerting posts.

Certified Original:


Ruben F. Ciron, PhD
Director General

Issue 1

10-29

22 JUNE 2009

UNCONTROLLED COPY

10. 13

REPEALING PROVISIONS

CAR-ANS Part 10B repeals previous Administrative Orders, Circulars, Rules and Regulations which are inconsistent with the provisions hereof.

Appendix 1 to CAR-ANS Part 10B

CAAP REGULATION ON SMS

1. STATUTORY BASIS

This regulation is promulgated under the statutory authority in CAR-ANS Part 10B as part of safety regulatory requirements for ATS service providers.

2. SCOPE AND APPLICABILITY


2.1 Scope

- 2.1.1 This regulation specifies the requirements for a service provider's safety management system (SMS) operating in accordance with Annex 11 — *Air Traffic Services*.
- 2.1.2 Within the context of this regulation the term "service provider" refers to air traffic service provider (ATS) providing air traffic services within the Philippines airspace.
- 2.1.3 This regulation addresses aviation safety-related processes, procedures and activities rather than occupational safety, environmental protection, or customer service or product quality.
- 2.1.4 The service provider is responsible for the safety of services or products contracted or subcontracted 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 The service provider shall have in place a safety management system (SMS) acceptable to CAAP 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 safety performance; and

Certified Original:



Ruben F. Ciron, PhD
Director General

Issue 1

10-31

22 JUNE 2009

UNCONTROLLED COPY

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

2.2.2 In order to be acceptable to the CAAP, a service provider's SMS shall meet the requirements set forth in this regulation.

3. REFERENCES

- 3.1 This regulation is in accordance with Annex 11 — *Air Traffic Services*;
- 3.2 This regulation is in accordance with the provision on SMS for service provider in CAR-ANS Part 11.
- 3.3 Guidance on the implementation of SMS is provided in Advisory Circular – AC139 & CAR-ANS – 009-01-0 Implementation of SMS for Aerodrome and ANS Providers.
- 3.4 Safety Management Manual, ICAO Doc. 9859, 2nd Ed. 2009.

4. GENERAL

A service provider shall develop, 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 hazards and safety risks related to the operations.

5. SAFETY POLICY AND OBJECTIVES

5.1 General requirements


- 5.1.1 A 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 action plans 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 of, adherence to and maintenance of the organization's SMS.

Certified Original:



Ruben F. Ciron, PhD
Director General

Issue 1

10-33

22 JUNE 2009

UNCONTROLLED COPY

- 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 someone from management to be the safety manager, the individual and focal point responsible 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

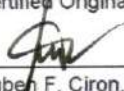
- 5.3.1 A service provider shall ensure its emergency response plan is properly coordinated with the emergency response plans of those organizations it must interface with during the provision of its services.
- 5.3.2 The coordination of the emergency response plan shall ensure the orderly and efficient transition from normal to emergency operations and the return to normal operations.
- 5.3.3 The coordination of the emergency response plan shall include, *inter alia*, the:
- 5.3.3.1 delegation of emergency authority;
- 5.3.3.2 assignment of emergency responsibilities during the coordinated activities;
- 5.3.3.3 coordination of efforts to cope with the emergency; and
- 5.3.3.4 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, subcontracted 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 already exist in its 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.

Certified Original:

Issue 1


Ruben F. Ciron, PhD
Director General

10-35

22 JUNE 2009

UNCONTROLLED COPY

- 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.
- 5.4.10 A service provider shall, as part of the SMS documentation, develop and maintain a safety management systems manual (SMSM), to communicate the organization's approach to safety throughout the organization.
- 5.4.11 The SMSM shall document all aspects of the SMS, and its contents shall include the following:
- 5.4.11.1 scope of the safety management system;
 - 5.4.11.2 safety policy and objectives;
 - 5.4.11.3 safety accountabilities;
 - 5.4.11.4 key safety personnel;
 - 5.4.11.5 documentation control procedures;
 - 5.4.11.6 coordination of emergency response planning;
 - 5.4.11.7 hazard identification and safety risk management schemes;
 - 5.4.11.8 safety performance monitoring;
 - 5.4.11.9 safety auditing;

5.4.11.10 procedures for the management of change;

5.4.11.11 safety promotion; and

5.4.11.12 control of contracted activities.

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 storage of 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.

Certified Original:



Ruben F. Ciron, PhD
Director General

Issue 1

10-37

22 JUNE 2009

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 7.2 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.

7. SAFETY ASSURANCE

7.1 General

- 7.1.1 A service provider shall develop and maintain safety assurance processes to ensure that the safety risk controls developed as a consequence of the hazard identification and safety risk management activities in paragraph 7 achieve their intended objectives.
- 7.1.2 Safety assurance processes shall apply to an SMS whether the activities and/or operations are accomplished internally or are outsourced.

7.2 Safety performance monitoring and measurement

- 7.2.1 A service provider shall, as part of the SMS safety assurance activities, develop and maintain them necessary means to verify the safety performance of the organization in reference to the safety performance indicators and safety performance targets of the SMS, 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 hazard reporting systems;
 - 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 hazard reporting procedures shall set out the conditions to ensure 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 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 organization which may affect established processes and services;

7.3.2.2 establish arrangements to ensure safety performance prior to implementing changes; and

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

7.4 Continuous improvement of the safety system


7.4.1 A service provider shall, as part of the SMS safety assurance activities, develop and maintain formal processes to identify the causes of substandard performance of the SMS, determine the implications on its operations, and rectify situations involving substandard performance in order to ensure continuous improvement of the SMS.

7.4.2 Continuous improvement of the service provider's 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 individual's performance, to verify the fulfillment of safety responsibilities.

Certified Original:



Ruben F. Ciron, PhD
Director General

Issue 1

10-39

22 JUNE 2009

UNCONTROLLED COPY

8. SAFETY PROMOTION

8.1 General

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 programme that ensures that personnel are trained and competent to perform their 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 policy 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 are fully aware of the SMS;
 - 8.3.1.2 convey safety-critical information;
 - 8.3.1.3 explain why particular safety actions are taken;
 - 8.3.1.4 explain why safety procedures are introduced or changed; and
 - 8.3.1.5 convey generic safety information.
- 8.3.2 Formal means of safety communication shall include *inter alia*:

- 8.3.2.1 safety policies and procedures;
- 8.3.2.2 newsletters;
- 8.3.2.3 bulletins; and
- 8.3.2.4 websites.


9. QUALITY POLICY

A service provider shall ensure that the organization's quality policy is consistent with, and supports the fulfillment of, the activities of the SMS.

10. IMPLEMENTATION OF THE SMS

- 10.1 This regulation proposes, but does not mandate, a phased implementation of a service provider's SMS, which encompasses four phases as described in 10.2 through 10.5.
- 10.2 **Phase I** — Planning should provide a blueprint on how the SMS requirements will be met and integrated into 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 (ATOs, air operators, AMOs, organizations responsible for type design and/or manufacture of aircraft, ATC service providers, certified aerodromes);
 - 10.2.4 Conduct a gap analysis of the organization'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 organization 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 II** — Reactive processes should put into practice those elements of the SMS implementation plan that refer to safety risk management based on reactive processes:
 - 10.3.1 hazard identification and safety risk management using reactive processes;

Certified Original:


Ruben F. Ciron, PhD
Director General

Issue 1

10-41

22 JUNE 2009

UNCONTROLLED COPY

- 10.3.1 hazard identification and safety risk management using reactive processes;
- 10.3.2 training relevant to:
 - 10.3.2.1 SMS implementation plan components; and
 - 10.3.2.2 safety risk management (reactive processes).
- 10.3.4 documentation relevant to:
 - 10.3.4.1 SMS implementation plan components; and
 - 10.3.4.2 safety risk management (reactive processes).
- 10.4 **Phase III** — Proactive and predictive processes should put into practice those elements of the SMS implementation plan that refer to safety risk management based on proactive and predictive processes:
 - 10.4.1 hazard identification and safety 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 IV** — Operational safety assurance should put into practice operational safety assurance:
 - 10.5.1 development of 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;
 - 10.5.4 documentation relevant to operational safety assurance; and
 - 10.5.5 develop and maintain formal means for safety communication.