



ASSEMBLY — 38TH SESSION

TECHNICAL COMMISSION

Agenda Item 28: Aviation Safety - Standardization

SMS, FROM STANDARDS TO PRACTICE: IMPLEMENTATION IN ASECNA

(Presented by ASECNA)

EXECUTIVE SUMMARY:

This information paper focuses on the implementation of the safety management system (SMS) and quality management system (QMS) in Agency for Aerial Navigation Safety in Africa and Madagascar (ASECNA) and their integration into a single system, called integrated management system (IMS).

It presents a practical case of implementation of SMS and QMS by an air navigation services provider (ANSP).

Strategic Objectives:

This working paper relates to Safety Strategic Objective.

Financial implications:

Not applicable.

References:

- Annex 19 - *Safety Management*;
- Doc 9935 *Report of the High-level Safety Conference (2010)*;
- Doc 9859 *Safety Management Manual*; and
- General Policy statement on Safety Management, adopted by the Board of Ministries of ASECNA

1. INTRODUCTION

1.1 ASECNA, Agency for Safety of Air Navigation in Africa and Madagascar, is an air navigation services provider for its 17 African Member States.

1.2 In 2005, in accordance with ICAO Standards and Recommended Practices, for safety management the Committee of Ministers of ASECNA, by Resolution No. 2005/CM 44-7, has adopted a document as a general policy statement for safety management. Throughout that document, the responsible authority requires ASECNA to establish a safety management system.

1.3 In July 2011, by resolution No. 2011 CA 120-10, ASECNA board meeting has committed the Agency Head Quarter to achieve, by 31 December 2014, a certification level of

¹ French and English versions provided by ASECNA.
(4 Pages)

SMS/QMS, as required. This paper makes an overview of SMS and QMS implementation status in ASECNA and the intended integration of all the management systems into a single integrated management system (IMS).

2. SAFETY SYSTEM MANAGEMENT (SMS)

The implementation project

2.1 An implementation plan of SMS has been developed and approved by the Director General of ASECNA in November 2011. The implementation activities, as recommended by ICAO, were planned in four phases as follows:

- a) phase 1: planning;
- b) phase 2: development, training and deployment of reactive processes;
- c) phase 3: development, training and deployment of proactive and predictive processes;
and
- d) phase 4: development, training and deployment of safety surveillance.

2.2 All activities of the above phases are planned to be carried out within the period from 2011 to late 2014 in a nonlinear manner, i.e. during the same period, it can be implemented activities from several phases.

Status of the SMS project implementation

2.3 The activities carried out up today are listed below:

- a) adoption of a safety policy by the relevant authorities of ASECNA;
- b) gap analysis between the existing in ASECNA and ICAO recommended reference ;
- c) development of a comprehensive plan for SMS implementation;
- d) CEO commitment for safety;
- e) creation of steering bodies for the implementation of SMS/QMS;
- f) creation of SMS implantation bodies;
- g) appointment of officials responsible for the management of safety and quality;
- h) development of a SMS/SMQ manual;
- i) staff training campaign, each at the appropriate level;
- j) definition of responsibilities in safety management; and
- k) development and implementation of proactive and reactive processes, including relevant procedures.

2.4 The SMS in ASECNA started to work effectively through the implementation of three major functions of safety management which are: risk management, insurance and promotion. To illustrate that, we can mention, among other formalized activities, the following:

- a) systematic analysis of safety events;
- b) monitoring of established safety performance indicators;
- c) periodic review meetings to evaluate the SMS and the safety performance of the Agency;
- d) safety assessment before any change;
- e) conduct of inspections and safety audits;
- f) establishment and monitoring of the implementation of corrective and preventive actions plans;

- g) staff sensitization and training for SMS implementation; and
- h) sharing of best practices and output of safety event analysis.

ASECNA is committed to provide a complete and functional SMS not later than the end of 2014.

3. QUALITY MANAGEMENT SYSTEM (QMS)

QMS implementation project

3.1 A plan for QMS implementation has been developed following the same pattern as the SMS stated in paragraph 2.1 above. Particular emphasis was placed on the QMS in meteorological services (MET) and aeronautical information services (AIM), this to better meet the ICAO requirements in this area.

3.2 ASECNA has set the end of 2014 as an objective for the quality certification of all its provided services including, air traffic, aeronautical information, aeronautical meteorology, aerodrome rescue and firefighting, maintenance of equipment and technical systems.

QMS implementation status

3.3 The activities carried out up to date are listed below:

- a) development of a 2012-2014 project for QMS implementation, taking into account the requirements of ISO 9001 2008;
- b) updating the quality policy of the Director General of the Quality Commitments of various structures Managers;
- c) updating decisions establishing the QMS structures;
- d) updating general mapping of ASECNA activities;
- e) sensitization and training of all stakeholders, on the ISO 9001/ 2008 requirements.
- f) development of a SMS/QMS manual;
- g) staff training campaign, each at the appropriate level;
- h) formalization and dissemination of mandatory quality approach procedures;
- i) identification, description and deployment of processes related to MET, AIM, ATS, CNS, SLI;
- j) quality auditors' training; and
- k) internal quality audits.

3.4 The quality management now appears in ASECNA as an organized, structured and planned system. The commitment of the Authority has been widely disseminated in the operational units. Significant resources have been mobilized for the implementation of the QMS.

4. OUTLOOK

Integration of management systems: Integrated Management System (IMS)

4.1 The implementation of the two development plans of SMS and QMS clearly shows their interdependence and the need for consistency between the two systems. Furthermore, achieving a good performance level can also be influenced by environmental and security factors.

4.2 It is in this context that the Agency has committed itself to the implementation of an integrated management system (IMS) including: safety, security, environment and quality.

4.3 This option is part of ASECNA 2012-2014 strategic plan of which the first of the two major objectives is: to improve the safety of air navigation. It can effectively meet the requirements of management systems related to safety (SMS), security (SeMS), environment (EMS) and quality (QMS) at a lower cost by sharing resources because of the numerous similarities between the systems. In such an integrated system, priority is given to safety and quality management standards are used as framework of the whole system.

4.4 In order to achieve effectively the above mentioned objective and, in compliance with its Member States' requirements, deriving from ICAO relevant Standards and Recommended Practices (SARPs), ASECNA has started in 2013, integrating SMS and QMS. Other activities are planned for 2014, to prepare for integration into the management system, security and environmental aspects. Those activities include the development of:

- a) security management plan related to the security of technical installations, buildings and information system; and
- b) environment management plan.

5. CONCLUSION

5.1 The implementation of SMS and QMS by an ANSP is a major challenge in achieving the ICAO safety strategic objective. It requires:

- a) great commitments from the staff, mainly from the head of structures; and
- b) important human and financial resources.

5.2 From experience, it is clear that management systems as SMS, SeMS, EMS and QMS have many similarities and are interdependent because the first three systems in the list above, use the standards of QMS as support. In addition, the performance of an SMS can be impacted by security or environment issues.

5.3 Integration of these systems may allow better efficiency and ensure a good safety performance.

5.4 The Assembly is invited to:

- a) take note of the experience of ASECNA in the field of safety management system implementation;
- b) encourage ANSPs to cooperate and exchange experience on SMS implementation; and
- c) encourage ANSPs to integrate SMS and QMS in a single system as an integrated management system (IMS).