



WORKING PAPER

ASSEMBLY — 38TH SESSION

TECHNICAL COMMISSION

Agenda Item 28: Aviation Safety — Standardization

AUDITING OF CHINA'S CIVIL AVIATION SAFETY MANAGEMENT SYSTEM

(Presented by the People's Republic of China)

EXECUTIVE SUMMARY

Since 2005, China has initiated the development of the Safety Management System (SMS). Up till now, China has completed the SMS supplementary certification for all airlines within China and the SMS evaluation of air traffic control units. The SMS certification for airports is now underway. CAAC decided in 2011 to selectively conduct the SMS audit of those enterprises which had already completed the SMS certification. At present, the SMS evaluation guidelines and tools have been developed, and relevant study, pilot projects and official audits have also been carried out. As the next step, work in this area will be gradually improved and promoted so as to enable the SMS of Chinese civil aviation enterprises to achieve the expected results through SMS auditing.

Action: The Assembly is invited to:

- a) note that CAAC has already developed SMS auditing procedures and tools and has conducted SMS audits with numerous airports and companies;
- b) note that based on the SMS audits which have already taken place, it is necessary to carry out the auditing of the SMS establishment and implementation by service providers;
- c) recommend that globally harmonized SMS performance auditing criteria be established in order to guide the States to monitor the SMS implementation effectiveness; and
- d) recommend that States continue to pay attention to the actual performance of SMS in order to ensure that the SMS achieves the expected results.

<i>Strategic Objectives:</i>	This working paper relates to the Safety Strategic Objective.
<i>Financial Implications:</i>	Not applicable.
<i>References:</i>	

(3 pages)

¹ Chinese version provided by the People's Republic of China

1. INTRODUCTION

1.1 SMS Implementation by Chinese civil aviation enterprises

1.1.1 Since 2005, CAAC has initiated the development of the SMS, promulgated the SMS implementation requirements for airlines, airports, ATCs, maintenance and security units, and conducted SMS pilot projects. CAAC completed the SMS supplementary certification for all transport airlines and the SMS evaluation of most air traffic control units. The SMS implementation at airports is now being carried out intensively. In order to promote the implementation of SMS by various units and to enable SMS to play its role, CAAC is now conducting the SMS auditing.

2. DISCUSSION

2.1 Objective of auditing

2.1.1 SMS auditing is aimed at transforming the traditional inspection based on regulation compliance into performance-based monitoring, focusing on assessing whether SMS (while in compliance with the regulation requirements) is properly implemented and achieves the expected results.

2.2 Audit program

2.2.1 In 2011, CAAC prepared "the Guidelines for Auditing China's Civil Aviation Safety Management System (SMS)", established SMS auditing procedures and developed SMS auditing tools. These tools include a series of evaluation indicators, interviews and questionnaires targeted at the personnel at various levels, with the view to helping the monitoring personnel to evaluate the effectiveness of SMS in a given organization.

2.2.2 SMS auditing evaluates, through a series of indicators, the effectiveness of SMS development, operation and implementation. Auditing tools are designed according to the elements required by the ICAO SMS framework; in the meantime, from the perspective of organizational safety management, the following items are added in order to comprehensively evaluate the safety management capabilities of enterprises: safety inspection, monitoring of flight quality, user difficulties reporting management and outsourcing management.

2.2.3 SMS auditing includes two types of audits: comprehensive audits and specific audits. Comprehensive audits involves the auditing of all SMS elements of all safety-related business units of the auditing target, while specific audits involves the auditing of critical SMS elements of selected safety-related business or units of an organization, such as risk management.

2.2.4 The initiation of a SMS audit is determined through the analysis of recent safety information of the industry. Enterprises with prominent safety issues are identified through safety information analysis and risk assessment, its safety management issues are determined, and then targeted checklists are chosen to conduct the safety audit of the enterprise.

2.3 **Work already undertaken**

2.3.1 In 2011, in order to ensure the smooth functioning of the SMS audits, CAAC conducted the SMS audit survey with six domestic airlines and studied thoroughly the results of SMS operation and implementation by airlines of different sizes. Subsequently, CAAC formed a SMS audit group composed of government inspectors and technical experts, carried out the SMS pilot auditing with airlines, provided systematic evaluation of the effectiveness of SMS implementation and put forward improvement recommendations and measures. After the completion of SMS pilot auditing project, the audit group improved its evaluation tools. From 2012 to the present, the SMS audit group under the auspices of CAAC has already conducted audits of 4 companies and 2 airports.

2.3.2 Based on the SMS audits which have already taken place, there seems to exist some implementation issues of common nature. For example, in the area of safety performance management, currently organizations have developed results-based safety objectives related to accidents, incidents and severe errors; however, they lack process-related control targets as well as the detailed safety work plans aimed at achieving these objectives. In the area of risk management, the risk management measures in certain organizations are mainly control measures targeted to personnel, such as punishments, training or safety reminders, and would not go up to the level of the organization and system. In the area of integrated analysis and systematic evaluation of safety information, more guiding methods and practical tools are needed.

2.4 **Next steps in the work program**

2.4.1 CAAC will continue to carry out the SMS certification for the airports and will selectively conduct the SMS audits of those airlines, airports and ATC units which have already completed the certification in order to evaluate their SMS implementation effectiveness. In addition, based on safety information and risk assessment, safety audits will be undertaken for the domestic airlines or relevant entities which have recently experienced travel safety issues in order to evaluate whether their SMS has played the expected role, identify the cause of their inability to effectively control the risks and to put forward measures and recommendations for improvements.

2.4.2 Based on the audits, auditing procedures and evaluation tools will continue to be improved so as to enable the SMS of Chinese civil aviation enterprises to achieve the expected results through SMS auditing i.e. to both meet the regulation requirements and to achieve safety performance in the area of safety risk management.