



**WORKING PAPER**

**ASSEMBLY — 37TH SESSION**

**TECHNICAL COMMISSION**

**Agenda Item 26: Safety management and safety data**

**PROPOSALS TO IMPROVE SUPPORT FOR THE IMPLEMENTATION OF THE SMS**

(Presented by Venezuela (Bolivarian Republic of))

**EXECUTIVE SUMMARY**

This paper partly describes the lessons learned whilst providing support for the implementation of safety management system (SMS) in Venezuela, for the purpose of being considered by the ICAO Assembly and compared with the experience of other States when handling common situations, which will favour the implementation of SMS in the aeronautical industry in the different regions of the world.

**Action:** The Assembly is invited to:

- a) duly note the information presented in this working paper.
- b) urge ICAO to take the necessary actions to:
  - 1) organize seminars and regional workshops to consult and assist States with the difficulties encountered when supporting the implementation of the SMS in the Industry and State safety programme (SSP) in the States;
  - 2) review and include in the SMS courses supplied by ICAO exercises on the development of the gap analysis, SMS implementation plan, and its planning tools;
  - 3) review and include in the SMS courses supplied by the ICAO sessions on how to establish low consequence safety indicators and goals; and
  - 4) create, with the support of experts and a few States, an official ICAO guide to further expand the description of SMS implementation procedures to support the activities moving forward in the industry.

<i>Strategic Objectives:</i>	This working paper relates to Strategic Objective A.
<i>References:</i>	Annex 1 — <i>Personnel Licensing</i> Annex 6 — <i>Operation of Aircraft</i> Annex 8 — <i>Airworthiness of Aircraft</i> Annex 11 — <i>Air Traffic Services</i> Annex 13 — <i>Aircraft Accident and Incident Investigation</i> Annex 14 — <i>Aerodromes</i> Doc 9859, <i>Safety Management Manual (SMM)</i>

<sup>1</sup> Spanish version provided by Venezuela (Bolivarian Republic of).

## 1. INTRODUCTION

1.1 The success of the new safety framework largely depends on obtaining and maintaining a safety data set relating to hazards and risks involved in the aeronautical activity within each region or State.

1.2 To achieve this dataflow, the creation of a structural, procedural and regulatory framework is required to facilitate the implementation of safety management procedures by the State (State safety programme (SSP)). This information is vital to allow each civil aviation authority to identify, at the very least, hazards in their environment, assess the related risks and take the most appropriate mitigation measures.

1.3 To ensure the dataflow is obtained and maintained in a correct and appropriate manner, the safety management system (SMS) must be adequately and dynamically implemented by the service providers. If this first basic processing level of SMS is not performed, it will be impossible to proactively and predicatively produce a State, regional or global SMS via the databases which the Integrated Safety Trend Analysis and Reporting System (iSTARS) will manage in future times.

## 2. DEVELOPMENT

2.1 The SMS has not been homogeneously implemented throughout the industry. The majority of the States are organizing their SSPs to provide more effective assistance and monitoring of the industry.

2.2 An analysis of the implementation activities of the SMS (part of the SSP of the Bolivarian Republic of Venezuela) and the feedback from safety managers within the aviation community has identified a few limitations with regard to achieving the SMS implementation objectives. The information was obtained on the basis of a review of 86 proposed SMS implementation plans by service providers in the Venezuelan aviation community during the first six months of 2010. These limitations are detailed in the following paragraphs.

2.2.1 *Resolution and correct implementation of the gap analysis and establishment of an implementation plan.* Although the questions of the gap analysis are clear for those with expert knowledge of the subject, interpreting and correctly responding to the gap analysis and, consequently, planning requirements, activities, timings and resources for each phase of the SMS, is not an easy task for many. Basically, the implementation and operating process of the SMS needs to be fully compressed, and project planning skills are required – areas not all aeronautical companies possess due to the innovative nature of the contents and methodology of the SMS, especially in terms of its practice and the specialized sector of project planning. In other words, not all organizations due to their size, the complexity involved, the type of services they provide, or due to their resources, possess qualified personnel with skills both in the area of safety management and project planning. Moreover, it should be taken into account that SMS qualified advisers are few and far between, which exacerbates the problem. It is also worth considering that large companies with the resources, complexity and ability to provide or take on staff with such skills do not normally make up the majority of companies within the industry in the various States. This emphasizes the importance of finding ways to support the planning activities of small- and medium-sized companies (and sometimes even larger ones). The State's role in providing assistance for such problems is decisive.

2.2.2 Another of the reasons for this problem could lie in the lack of practical experience in using the instrument proposed by the ICAO gap analysis during the SMS courses of the ICAO. Given the shortcomings encountered when planning SMSs, ICAO is urged to provide greater assistance, in particular:

- a) as one of the specific objectives of the course, include a practical resolution of the gap analysis, as set out in the SSP course;
- b) increase the time dedicated to the structure and contents of the model implementation plan and considerations for its adequate planning; and
- c) consider the need to develop within ICAO official technical documents (in various languages) a procedural guide for the implementation of the SMS, which further completes the information contained in *Safety Management Manual (SMM)* (Doc 9859), Chapter 10, Annex 2 in relation to “Guidance on the development of an SMS implementation plan for service providers”.

2.2.3 *Establishment of low-consequence safety indicators, goals, and requirements.* The reasons for this difficulty could be linked to the failure within many organizations to record significant safety data and identify the key safety indicators in each organization. Obtaining indicators from aeronautical maintenance organizations has proven to be a major problem, even greater than the difficulties encountered with other types of organizations. In this sense, reporting safety data is something very new for a few companies. Greater experience is needed, especially in terms of the teaching support required to correctly identify the nature of the safety data, which will have an impact on the correct selection of the associated indicators and goals and, therefore, the correct safety performance measurement.

2.2.4 ICAO is consequently urged to include as one of the specific objectives of the course, the establishment of safety indicators and goals, as set out in the SSP course.

### 3. CONCLUSIONS

3.1 The implementation of the SMS is a complex process requiring constant feedback between the industry and the State. The Venezuelan experience in providing support for the implementation of the SMS has identified difficulties associated with the resolution and correct interpretation of the gap analysis and development of the implementation plan, as well as in establishing low-consequence safety indicators, goals and requirements.

3.2 It is assumed that the partial or total resolution of these shortcomings may help support the implementation of the SMS, and produce incalculable benefits for obtaining and maintaining a safety dataflow, in order to manage risks in the industry in an appropriate manner.

3.3 To obtain an overview of the global implementation of the SMS and SSP, a formal process must be initiated to collect information and exchange experiences, via the various regional organizations of the ICAO, based on a diagnosis of the current situation and taking appropriate actions to improve the difficulties encountered.