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ASSEMBLY — 39TH SESSION

TECHNICAL COMMISSION

Agenda Item 36: Aviation safety and air navigation implementation support

PROPOSALS TO IMPROVE SUPPORT FOR THE IMPLEMENTATION OF THE SMS

(Presented by Venezuela (Bolivarian Republic of))

EXECUTIVE SUMMARY

Some of the lessons learnt from supporting the implementation of the safety management system (SMS) in the Bolivarian Republic of Venezuela are outlined in this working paper so that they may be considered by the ICAO Assembly and compared with the experience of other States in handling possibly common situations, which would contribute to SMS implementation in the aviation industry in the various regions of the world.

<i>Strategic Objectives:</i>	This working paper relates to the Safety Strategic Objective
<i>Financial implications:</i>	Not applicable
<i>References:</i>	<i>2014-2016 Global Aviation Safety Plan (GASP) (Doc.10004)</i> <i>Safety Management Manual (Doc. 9859)</i> <i>Working Paper A37-WP/141 and A38-WP/199</i>

¹ Spanish version provided by Venezuela

1. INTRODUCTION

1.1 The success of the new safety framework depends largely on obtaining and maintaining a safety data set on hazards and risks arising from aviation activity in each region or State.

1.2 To achieve this data flow, a structural, procedural and standard-setting framework had to be established to facilitate the conduct of safety management processes by the State [State Safety Programme (SSP)]. That information is vital to enable each aviation authority to identify, in the best of cases, the hazards in its environment, assess related risks and implement the most appropriate mitigation strategies.

1.3 To obtain and maintain this data flow genuinely and appositely, the safety management system (SMS) must be implemented properly and dynamically by service providers. If this first basic level of proactive and predictive safety management is not put into practice, it will be impossible to achieve State, regional and, ultimately, world safety management through databases such as those managed by the integrated Safety Trend Analysis and Reporting System (iSTARS).

2. DEVELOPMENT

2.1 SMS has not been implemented uniformly by the industry. Most States are organizing their SSP to assist and oversee the industry more effectively.

2.2 Owing to the analysis of SMS implementation activities carried out under Venezuela's SSP and feedback from aviation community professionals in charge of safety firms, some obstacles to the achievement of SMS implementation objectives have been identified, as previously stated in Working Papers A37-WP/141 and A38-WP/199.

2.3 Following the inclusion of guidelines in Chapter 5 of Doc. 9859 and Annex 19 recommended standards and practices, more tools are available to handle service providers' SMS acceptance criteria.

2.4 In the light of Venezuela's actual experience, the most common SMS implementation difficulties encountered are outlined below.

a) **SMS planning**

Gap analysis duly completed and interpreted, and implementation plan correctly drafted. Although the *gap analysis* questions are clear to those who know the subject well, it has not been easy for many to interpret it and give correct answers and accordingly identify requirements, activities, schedules and resources for each SMS stage. Total compression was basically required for SMS implementation and operation and for some project planning skills, but aviation firms do not all have the requisite profile because the SMS thematic and methodological content is so new, especially in actual practice, and the project planning area is so specialized.

b) **Safety objectives**

Establishment of low-consequence safety objectives, indicators and goals and their relationship to air accidents/incidents. The difficulty here has been linked causally to the fact that many organizations are not in the habit of recording significant safety

data and of identifying the most representative and suitable indicators for measuring safety performance in each organization.

Adequate safety objectives are occasionally not specified because service providers have a holistic understanding of their participation in the aviation sector. In regard to safety, air accidents/incidents are felt keenly by air operators, namely operators of aerodromes, which can be regarded as places where specific air accidents/incidents occur or can occur, and other service providers, such as maintenance organizations, manufacturers/designers, instruction centres and air navigation services that know that their “performance/processes” are factors that contribute to air accidents/incidents.

Greater experience and, above all, educational support are required in order to identify appropriately the nature of the safety datum that can be instrumental in the correct selection of indicators and associated goals, and consequently the correct measurement of safety performance.

c) Compression of SMS requirements in small organizations

In applying the acceptance criteria of the requirements to be implemented by service providers or to be assessed by aviation inspectors, doubts have arisen about more pragmatic and realistic implementation of SMS components and elements in small organizations, understood to be bodies characterized by a very simple organizational structure, a small staff complement and a small range of services on offer.

The inception of positive initiatives have been reported for specific types of service providers in supporting documents offered to States, in the SAM Region for example (go to the link: http://www.srvsop.aero/srvsop/archivos/documentos/CA-AIR-145001Rev.3_06DIC2015_56788dc5c14a2.pdf), providing explanatory and informative SMS material (MEI 145.200) and acceptable methods of SMS implementation for small, less complex organizations (MAC145.200).

3. CONCLUSION

3.1 Owing to past experience and the new guidelines adopted in Doc. 9859 as last revised, States can use the selection criteria of indicators for acceptable levels of SMS safety in relation to the type and characteristics of service providers, as shown in Appendix A to this working paper.

3.2 For a more pragmatic and realistic implementation of SMS components and elements by small firms characterized by a very simple organizational structure, a small staff complement and a small or limited service range or others features determined by States, a summary of specific acceptance criteria is given in Appendix B to this working paper.

4. RECOMMENDATION

4.1 The Assembly is invited to:

- a) note and consider the views expressed in this working paper;

- b) continue initiatives in each of the regions, enlisting efforts by all parties, to implement the SMS in organizations in the aviation sector and to improve continuously the implementation processes adopted by States through more pragmatic and realistic methods and acceptance criteria.

Appendix A

ACCEPTABLE SMS SAFETY LEVELS								
Types of indicator	Management	SERVICE PROVIDERS						
		AOC HOLDER	OMAs	CIAs	ANS (ATS)	AGA	TC/STC HOLDER	OTROS (*)
Sets of indicators for high- and low-consequence events.	Reactive	✓						
Sets of indicators for high- and low-consequence events (of interest).	Reactive	✓						
Group of process events that affect air operations.	Reactive		✓	✓	✓	✓	✓	✓
Sets of indicators derived from State oversight (external auditor) and identified critical areas.	Proactive	✓	✓	✓	✓	✓	✓	✓
Sets of indicators derived from audits, internal quality systems or other managements systems and identified critical areas.	Proactive	✓	✓	✓	✓	✓	✓	✓
Sets of indicators for promotion, dissemination and safety culture.	Proactive	✓	✓	✓	✓	✓	✓	✓
Trends in the above indicators and their relationship to other programmes involving service providers.	Predictive	✓	✓	✓	✓	✓	✓	✓

(*) Associated firms, such as providers of stopover or other airport services.

Appendix B

Components and elements	Acceptable criteria for organizations characterized by a very simple organizational structure, a small staff complement and small or limited service scope, among other characteristics.
1. Safety policy and objectives	
1.1 Management commitment and accountability	-The service provider will set its safety policy in accordance with Doc. 9859 criteria, adjusted to national rules and regulations and the scope of the product or service on offer. - Set basic and realistic safety management performance objectives.
1.2 Safety responsibilities	- Identify the executive in charge and list that person's decision-making responsibilities and resources. That person may also discharge SMS implementation and maintenance responsibilities. -There is no need to establish committees or working groups, but a procedure and tools must be in place in order to oversee and manage the follow-up to action taken.
1.3 Appointment of key safety staff	
1.4 Coordination of emergency response planning	- Formulate a contingency procedure to ensure that there is an orderly and effective transition from normal operations to emergency operations (understood as those which interrupt operational activity/service provision). The procedure includes assignment of specific tasks to persons during the emergency and, if necessary, the delegation of authority.
1.5 SMS documentation	The service provider must detail its SMS in a handbook or in a section of the organization's operational handbook describing the policy, objectives, safety indicators and goals, hazard identification process and risk assessment, internal and external notification procedures, risk assessment of internal and or external audit/survey findings on processes generated by its products or services, audit procedures and monitoring of indicators for continuous SMS improvement.
2. Safety risk management	
2.1 Hazard identification	- Identify hazards and manage risks. - Implement a procedure for the internal and external notification and internal investigation of events. - Assess and manage risks relating to internal and/or external audit/survey findings on processes associated with its products or services. - Compile and archive records of reactive and proactive processes and procedures.
2.2 Safety risk assessment and mitigation	
3. Safety assurance	
3.1 Safety performance monitoring and measurement	- Apply mandatory accident/incident notification procedures applicable to the organization under State regulations and voluntary, albeit not necessarily automated, notification systems for observed hazards or accidental errors. - Safety studies, reviews and audits may be commissioned from organizations or external persons acceptable to the civil aviation authority. - Devise simple objective-based safety performance indicators.
3.2 Change management	- Safety reviews, as analysed in safety performance control and measurement, can be useful sources of information, in support of decision making and efficient change management. - Implement quality self-assessment procedures whenever making preparations for significant organizational changes; such procedures may be outsourced.
3.3 Continuous SMS improvement	- Implement internal assessments and independent audits of the SMS by organizations and persons acceptable to the civil aviation authority.
4. Safety promotion	
4.1 Training and education	- Provide details in appropriate sections of the approved operational handbook or in the MSMS of a safety training programme for SMS staff, designed to ensure that each SMS staff member participates.
4.2 Safety communication	The person in charge of SMS will publicize all information on safety and specific safety issues regularly through internal resources and information meetings.