International Civil Aviation Organization

WORKING PAPER

ASSEMBLY — 37TH SESSION

TECHNICAL COMMISSION

Agenda Item 26: Safety management and safety data

DEVELOPING EQUIVALENCE IN SMS IMPLEMENTATION, ACCEPTANCE, PERFORMANCE MEASUREMENT AND OVERSIGHT

(Presented by Canada and the United States)

EXECUTIVE SUMMARY

The aviation industry is subject to varying degrees of regulation by numerous Civil Aviation Authorities. ICAO requires each State to implement a State Safety Program (SSP) and for States to require aviation service providers to implement Safety Management Systems (SMS).

Development of a consistent approach to managing the relationship between the States' SSP and SMS requirements would benefit the aviation service providers that operate internationally and their oversight entities. This equivalence would reduce the overall burden of compliance with regulatory requirements on the aviation industry and reduce workloads of personnel and organizations involved in oversight.

SMS acceptance will be linked to certification of products and services on the part of most States. It is recommended that States develop a common understanding of the methods and processes involved in SMS implementation, acceptance, performance measurement and oversight. Consistent SSP and SMS processes across States will give cooperating States confidence in the equivalence of design and performance of a product/service providers' SMS, and contribute to global aviation safety. This paper recommends that the Safety Management International Collaboration Group (SMICG) study these issues and make appropriate technical recommendations.

Action: The Assembly is invited to commission the SMICG to study and analyze the issues discussed in this paper and to make technical recommendations regarding the processes and methodologies related to SMS implementation, acceptance, performance management and oversight. The SMICG should focus on achieving a common understanding of these processes in practical application.

Strategic Objectives:	This working paper relates to Strategic Objective A.
Financial implications:	N/A
References:	Annex 1 — *Personnel Licensing* Annex 6 — *Operation of Aircraft* Annex 8 — *Airworthiness of Aircraft* Annex 14 — *Aerodromes* Doc 9734, *Safety Oversight Manual* Doc 9859, *Safety Management Manual (SMM)*

1.   **INTRODUCTION**

1.1   Safety performance can be defined in terms of managing risk to an acceptable level. Implementation of Safety Management Systems (SMS) by aviation service providers is a major element of a strategy to achieve this goal.

1.2   States' acceptance of service providers' SMS under Annexes 1, 6, 8, and 14 will be linked to certification, approval, acceptance, or other authorization processes[1]. However, of these, only service providers under Annexes 6 and 8 are subject to certification or direct oversight of multiple States' authorities. Therefore, it is with these service providers where a common understanding of implementation, acceptance, performance measurement, and oversight practices is more critical.

1.3   ICAO has provided a set of SMS requirements in the form of Standards and an SMS framework in the major Annexes. However, differences between States' interpretations for SMS implementation, acceptance, performance measurement and oversight may lead to significant differences in actual SMS performance. These differences in interpretation could lead to duplicative and/or conflicting requirements for service providers. A common operational understanding of these processes would be a benefit for aviation service providers and provide a sound technical baseline for future agreements between States.

1.4   Regulations and oversight practices within and between States involve both technical and legal/political considerations. This paper considers only the technical aspects related to establishing a common understanding of methods of evaluating SMS implementation and measuring and monitoring subsequent safety performance. A common understanding of these practices from a technical viewpoint is essential before a practical equivalence of SMSs can be determined.

1.5   Additional information on these two critical systems can be found in the United States' information papers entitled: *Developing an Integrated Approach to Systematic Safety Oversight in States* (A37-WP/227) and *Achieving a Common Understanding of SSP-SMS Relationship* (A37-WP/225).

2.   **DISCUSSION**

2.1   Two systems currently exist for accomplishing State-level safety management responsibilities: the SSP (ref. ICAO Doc 9859 – *Safety Management Manual (SMM)*) and relevant Annexes) and the Oversight System (ref. ICAO Doc 9734 – *Safety Oversight Manual*). Each of these systems defines the roles and responsibilities of the State and service providers. At present, they describe these roles and responsibilities and the relationship between the State and service providers' SMSs in different terms. It will be important to reconcile these differences and to determine how these systems work together without duplicative or conflicting requirements.

2.2   A comprehensive, consistent set of safety management and oversight requirements, are not enough to assure equivalence of safety performance across States. A common understanding of the

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[1] While Air Traffic Management organizations and Airport Operators are subject to the SMS requirements of Annexes 11 and 14 they are not generally subject to certification or oversight by other States' authorities.

processes for implementation, acceptance, performance measurement, and oversight of service providers'
SMS is also needed.

2.3   Finally, a common understanding of performance measurement methods and processes is
also essential to consider service providers' SMS technically equivalent across States and between
individual service providers.

3.   **CONCLUSION**

3.1   Common requirements and a common understanding of processes involved in
implementation, acceptance, performance measurement, and oversight of service providers' SMSs is
required to promote the equivalence necessary for consistent global aviation safety.

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