



WORKING PAPER

ASSEMBLY — 41ST SESSION

TECHNICAL COMMISSION

Agenda Item 30: Aviation Safety and Air Navigation Policy

30.3 Relevant Outcomes of the High-level Conference on COVID-19, Safety Stream (HLCC 2021)

ADVANTAGES OF IMPLEMENTING SAFETY RISK-BASED SURVEILLANCE (SRBS)

(Presented by Ecuador, supported by Argentina, Bolivia, Brazil, Chile, Colombia, El Salvador, Guatemala, Guyana, Mexico, Panama, Paraguay, Peru, Suriname, Uruguay and Venezuela (Bolivarian Republic of))

EXECUTIVE SUMMARY

This working paper (WP) describes for the Assembly the advantages of a safety risk-based surveillance (SRBS) approach that allows for prioritization and allocation of resources to State Safety Management according to the risk profile of each sector or service provider.

Action: The Assembly is invited to:

- a) take note of this working paper; and
- b) request ICAO to promote guidance on the implementation of a safety risk-based surveillance approach; and
- c) request ICAO to make available examples of guidance on the development of tools to support States in implementing SRBS methodologies with different service providers.

<i>Strategic Objectives:</i>	This working paper relates to the Safety Strategic Objective.
<i>Financial implications:</i>	None
<i>References:</i>	Doc 9859, <i>Safety Management Manual (SMM)</i>

¹ Spanish version provided by Ecuador.

1. INTRODUCTION

1.1 The Convention on International Civil Aviation provides that every State has full and exclusive sovereignty over the airspace above its territory. However, by acceding to the Convention, States accept certain principles and arrangements in order that international civil aviation may develop in a safe and orderly manner. The safe and orderly development of international civil aviation requires that all civil aviation operations be conducted in accordance with internationally accepted standards, procedures and minima. That States should cooperate to the fullest extent possible to achieve standardization and harmonization of regulations, rules, standards, procedures and methods is therefore a requirement of the Convention. It also follows that Contracting States must establish and implement systems that will enable them to satisfactorily discharge their international obligations and responsibilities to develop and conduct civil aviation in a safe and orderly manner.

1.2 With the introduction of safety management standards in Annex 19 to the Convention on International Civil Aviation, States are urged to proactively mitigate safety risks before they result in aviation accidents and incidents. The effectiveness of safety management activities is strengthened when they are implemented in a formal and institutionalized manner through the State Safety Programme (SSP) and the Safety Management System (SMS). The SSP and the SMS systematically address safety risks, improve the safety performance of each service provider, and collectively improve the safety performance of States. In this SSP/SMS environment, the Safety Risk-Based Surveillance (SRBS) approach plays an important role in identifying hazards and managing safety risks.

1.3 In order to enable States to meet their obligations and responsibilities under the Convention, ICAO, through the Safety Management Handbook (Doc 9859), recommends that States transition from prescriptive surveillance, which is based on fixed parameters and set time periods that serve to determine the type and frequency of inspections, to a safety risk-based surveillance (SRBS) approach, consistent with the principles of the SSP and the SMS and which allows States a more efficient allocation of their resources to give priority to continuous surveillance activities focused on those service providers that generate or are exposed to higher levels of risk, given the level of growth experienced in the civil aviation industry, which necessitates the search for more effective methods.

2. ANALYSIS

2.1 Continuous surveillance of a service provider's safety performance by the CAA is an intrinsic element of the certification system and is a critical factor in ensuring that States fulfil their responsibilities. However, if State safety inspectors continue to conduct ongoing surveillance from a prescriptive perspective, States will not be able to focus inspections of service providers on those areas of greatest concern or need and, in turn, will not be able to fulfil their obligations and responsibilities as set out in Annex 19 to the Convention on International Civil Aviation.

2.2 Therefore, the application of a safety risk-based surveillance (SRBS) approach, in addition to supporting the effective implementation of the SSP in States, allows for the prioritization and allocation of safety management resources according to the risk profile of each sector or service provider. States will also gain experience and familiarity with each service provider by observing the continued development of the maturity of their safety assurance processes and, in particular, safety performance management. Similarly, States will accumulate a clear picture of the safety capabilities of the service provider, particularly in its management of safety risks, and may amend the scope or frequency of their surveillance as their confidence and evidence of the service provider's capability increases.

2.3 SRBS is most suited for service providers with a mature SMS. However, it can also be applied to service providers where SMS has not yet been implemented. The foundation of an effective SRBS is reliable, sufficient and meaningful data. Without reliable and meaningful data, it is difficult to justify adjustments to the scope or frequency of safety oversight. Similarly, States should develop or strengthen their data management capabilities to ensure that they have reliable and complete data on which to base their decisions (data-driven).

2.4 Sector-specific safety risk management can also enable States to identify common safety risks affecting several service providers with similar types of operation (e.g. airlines with short-haul services). This facilitates the ranking of safety risks among service providers within a specific aviation sector or across sectors, and supports the allocation of surveillance resources to those sectors or activities with the most serious safety implications.

2.5 Sector-level analyses provide States with an overview of the aviation system context. These analyses enable States to identify those sectors that will benefit from higher levels of support or intervention and those sectors that are more suited to a more collaborative approach. This provides States with assurances that regulation across the aviation system is commensurate and well targeted to the areas of greatest need. It is easier to identify where changes to specific regulations are needed to achieve maximum regulatory effectiveness with minimum interference.

2.6 SRBS also requires ongoing interactions between States and the aviation community beyond compliance-based audits and inspections. An SRBS approach uses the safety risk profile of the service provider to inform its oversight activities. The products of internal reviews, analysis and decision-making within the service provider's system go on to form an action plan aimed at addressing key safety risks and mitigations that effectively address them. The analyses of both the State and the service provider define the priority areas of safety concerns and propose the most effective means of addressing them.

2.7 It is important to note that safety risk-based surveillance may not necessarily reduce the amount of oversight exercised or resources. However, the quality of oversight and the quality of interaction between the Authority and the service provider will increase significantly....

3. CONCLUSION

3.1 3.1 The implementation by States of a safety risk-based surveillance (SRBS) approach will make it possible to:

- a) determine the prioritization of service provider inspections and surveys towards those areas of greatest concern or need and thereby support in the effective implementation of State safety surveillance programmes (SSP) by States;
- b) identify and analyse common safety risks that affect several service providers engaged in similar operations;
- c) make specific regulatory changes based on the performance outcome of service providers;
- d) ensure that air service providers monitor and analyse safety data to identify trends and take appropriate action when necessary;

- e) review and monitor safety performance indicators (SPIs), targets and alert levels, for each individual service provider, where applicable;
- f) enable and promote the exchange of safety information between service providers and other sectors of the State's civil aviation system;
- g) use information related to the safety performance of its service providers to support the State's safety performance monitoring;
- h) determine the effectiveness of hazard identification and risk assessment and mitigation processes by service providers; and
- i) more efficiently allocate resources to prioritize continuous surveillance activities at those service providers that generate or are exposed to acceptable or unacceptable levels of risk.

3.2 In order to enable States to comply with their obligations under the Convention on International Civil Aviation and to determine priorities with respect to inspections and surveys of service providers, focusing on areas of greatest concern or need, the Assembly is invited to: request ICAO to promote the implementation of the safety risk-based surveillance approach and to make available examples of guidance for the development of tools to support States in the implementation of the SRBS methodology in the different service providers.

— END —