



WORKING PAPER

TWELFTH AIR NAVIGATION CONFERENCE

Montréal, 19 to 30 November 2012

Agenda Item 6: Future direction

6.2: Standardization – approach to SARPs development in support of One Sky

DEVELOPMENT OF AN INTEGRATED APPROACH TO SAFETY MANAGEMENT

(Presented by the United States and supported by Australia, Brazil, Canada, Japan, New Zealand and Switzerland)

EXECUTIVE SUMMARY

The ICAO Universal Safety Oversight Audit Programme (USOAP) and continuous monitoring approach (CMA) provide a methodology to monitoring and measuring States' safety oversight capabilities that combines direct observation and auditing with analysis of data. More recently, ICAO has published safety management requirements for States by mandating that States establish a State safety programme (SSP) in order to achieve acceptable safety performance in their civil aviation systems. Furthermore, ICAO has initiated a Safety Management Panel that is tasked to develop a new Annex dedicated to safety management. Thus, in order to develop a cohesive system that is more effective and minimizes duplication, an integrated approach to safety oversight and safety management decision-making is essential. This paper strongly recommends that ICAO ensure that SSP and the States' safety oversight capability requirements are integrated in the new Safety Management Annex and that ICAO auditing activities reflect this integration.

Action: The Conference is invited to agree on the recommendations in paragraph 4.

1. INTRODUCTION

1.1 The ICAO Universal Safety Oversight Audit Programme (USOAP) and continuous monitoring approach (CMA) provide data supported methodologies for monitoring and measuring States' safety oversight capabilities. More recently, ICAO has published safety management requirements for States by mandating that States establish a State safety programme (SSP) in order to achieve acceptable safety performance in their civil aviation systems. Furthermore, ICAO has initiated a Safety Management Panel (SMP) that is tasked to develop a new Annex dedicated to safety management. Thus, in order to develop a cohesive system that is more effective and minimizes duplication, an integrated approach to safety oversight and safety management decision-making is essential.

2. DISCUSSION

2.1 ICAO member States are developing their SSPs and regulations for service provider safety management systems (SMS) in accordance with ICAO standards that advocate a systems approach to managing safety. Historically, civil aviation authorities have not developed safety regulations and

policies in an integrated fashion across the components of the aviation system. However, with adoption of SMS by service providers, civil aviation authorities must adapt their systems and processes to ensure that oversight activities leverage the service providers' role in safety management and that they take a more systemic approach in their own internal processes. Thus, the new Safety Management Annex must recognize this relationship and ensure that the SSP for the State and SMS for the service providers are fundamental components that must work together to achieve safety goals for the entire aviation system.

2.2 Additionally, as a result of previous ICAO Assembly resolutions, ICAO has developed the USOAP, which comprises eight critical elements (CE) of safety oversight. These eight critical elements establish the principal responsibilities and activities in the State's oversight of its aviation service providers. The effective implementation of these critical elements has been an effective indicator of a State's safety oversight capability. The next iteration of the USOAP is the CMA, which also includes the eight critical elements of safety oversight. The main focus of CMA will be that the States perform regular assessments of their implementation of the critical elements of safety oversight and provide the results to ICAO.

2.3 ICAO Annexes 1, 6, 8, 11, 13 and 14 define the SSP as, "An integrated set of regulations and activities aimed at improving safety". This suggests that the activities of the oversight system, as outlined in the eight critical elements, should be part of this "integrated system". The SSP provides a systemic management framework for safety decision making on the part of the State's aviation authorities. Thus, while the eight critical elements establish a baseline set of responsibilities and activities for oversight, the SSP provides a systemic framework for managing them.

2.4 The eight critical elements of safety oversight define the foundational elements that enable effective oversight systems. Concurrently, the SSP Framework also includes many elements that are common with the eight critical elements of oversight. The table below illustrates the ICAO SSP Framework and the critical elements of safety oversight. Although the listing is not exclusive, it can be noted that most of the critical elements map closely to the components of the SSP Framework. Hence, without proper consideration of this integration, SSPs may be developed in a fragmented manner. This may result in redundant functionalities within the SSP which could lead to a less robust system and inefficient use of resources. It may also result in the creation of an SSP that is not linked with the existing oversight systems.

SSP Framework	Critical Elements of Oversight
State safety policy and objectives	CE-1 Primary aviation legislation CE-3 State's civil aviation system and safety oversight functions
State safety risk management	CE-2 Specific operating regulations CE-6 Licensing, certification, authorization and approval obligations
State safety assurance	CE-7 Surveillance obligations CE-8 Resolution of safety concerns
State safety promotion	CE-4 Technical personnel qualification and training CE-5 Technical guidance, tools and the provision of safety critical information

2.5 Consider the SSP Framework component regarding safety policy. The ICAO SSP Framework indicates that States should possess a State safety policy and objectives that includes promulgation of a safety legislative framework and the identification of the State's safety responsibilities and accountabilities. This SSP component ties directly to CE-1 and CE-3, which cover primary aviation

legislation and the requirement for a State's civil aviation system and safety oversight functions respectively.

2.6 Another example of commonality between SSP and critical elements of oversight can be observed with the State safety risk management component in the SSP. This component refers to developing appropriate risk controls and the typical instruments of risk control on the part of a State, including its regulations. Regulations that are based upon identified hazards give service providers clear targets for attainment of the risk control. Consequently, this function is comparably covered in CE-2.

2.7 The examples discussed above demonstrate some of the commonality that exists between the SSP and critical elements of safety oversight. Additionally, the State safety assurance component of the SSP also includes a requirement for safety oversight (Element 3.1). This SSP element requires a State to establish mechanisms to ensure effective monitoring of the eight critical elements of safety oversight. Thus, without proper alignment, States could be led to believe that they must show compliance with similar requirements twice, once as part of the oversight function within the SSP and again as part of its eight critical elements of safety oversight.

3. CONCLUSION

3.1 It is imperative that further development of Safety Management Annex ensures that States are not required to meet similar requirements in the elements of the SSP Framework and once again as part of the eight critical elements of oversight. Additionally, ICAO must ensure that this new Annex is developed in an integrated and comprehensive manner, in which SSP and the States' safety oversight capabilities are integrated and ICAO auditing activities reflect this integration.

4. RECOMMENDATIONS

4.1 The Conference is invited to:

- a) recognize that in order to develop a cohesive system that is more effective and minimizes duplication, an integrated approach to safety oversight and safety management decision-making is essential;
- b) recognize that similar requirements exist in eight critical elements of oversight and the elements of the SSP Framework; and
- c) strongly recommend that ICAO ensure that SSP and the States' safety oversight capabilities are integrated in the new Safety Management Annex and that ICAO auditing activities reflect this integration.

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