



WORKING PAPER

THIRTEENTH AIR NAVIGATION CONFERENCE

Montréal, Canada, 9 to 19 October 2018

COMMITTEE B

- Agenda Item 6: Organizational safety issues**
6.2 Implementation of safety management
6.2.1: State safety programmes (SSPs)

**CHALLENGES WITH THE IMPLEMENTATION OF THE CONCEPT OF ACCEPTABLE
LEVEL OF SAFETY PERFORMANCE**

(Presented by Australia, Brazil, Cameroon, Canada, Colombia,
Dominican Republic, Italy, New Zealand, Saudi Arabia, Singapore,
South Africa, Spain, Turkey and International Federation of Air Traffic
Controllers' Associations (IFATCA))

EXECUTIVE SUMMARY

Annex 19 — *Safety Management* requires States to establish the acceptable level of safety performance (ALoSP) to be achieved through their State Safety Programme (SSP). This paper presents the challenges faced by States in implementing ALoSP and calls for a review of the ALoSP concept.

Action: The Conference is invited to agree to the recommendation in paragraph 3.2.

1. INTRODUCTION

1.1 Standard 3.4.2.1 of Annex 19— *Safety Management* requires States to establish the acceptable level of safety performance (ALoSP) to be achieved through their State Safety Programme (SSP).

1.2 ALoSP is defined¹ in the *Safety Management Manual* (SMM, Doc 9859) as “the minimum level of safety performance of civil aviation in a State, as defined in its State safety programme, or of a service provider, as defined in its safety management system, expressed in terms of safety performance targets and safety performance indicators.”. Annex 19 further describes how an ALoSP can be achieved in the note accompanying Standard 3.2.4.1: “An acceptable level of safety performance for the State can be achieved through the implementation and maintenance of the SSP as well as safety performance indicators and targets showing that safety is effectively managed and built on the foundation of implementation of existing safety-related SARPs.”

¹ In the advance unedited 4th Edition of the SMM, the term ALoSP is used only in relation only to States, and is defined as “the level of safety performance agreed by State authorities to be achieved for the civil aviation system in a State, as defined in its State safety programme, expressed in terms of safety performance targets and safety performance indicators.”

2. DISCUSSION

2.1 The purpose of the ALoSP appears to be clear from the descriptions in Annex 19 and the SMM. After defining its safety objectives, safety performance indicators and the targets associated with these indicators, States should make a determination on the minimum overall level of safety performance that would be considered to be acceptable to the State. It should be noted that the ALoSP relates to the safety performance of the whole system, rather than of individual safety performance indicators. This is illustrated by the flowchart in Figure 1 below, which can be found in the advance unedited 4th Edition of Doc 9859.

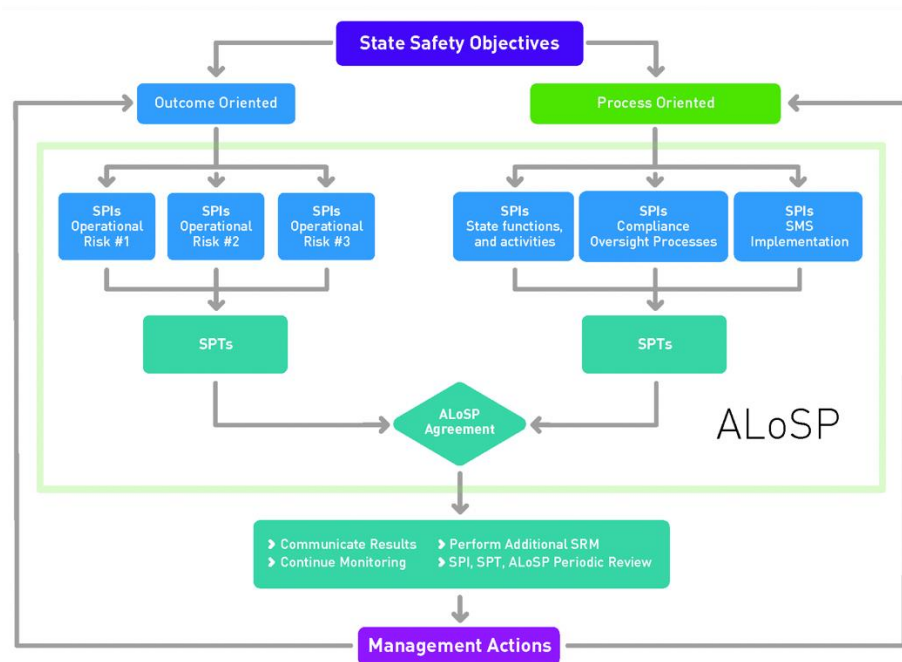


Figure 1 : Acceptable Level of Safety Performance

2.2 The States co-sponsoring this paper, among others, have found that while the purpose of the ALoSP may be clear, *how* it is to be implemented is not clear and may be challenging in practice.

2.3 The use of the word “acceptable” in the term “acceptable level of safety performance” suggests that there are two possible categories that aviation safety performance may fall into: acceptable safety performance (i.e., within the bounds of the ALoSP), or unacceptable safety performance (i.e., outside the bounds of the ALoSP). This would appear to require the State to develop criteria to determine whether the safety performance of the State, as a whole, is “acceptable” or “unacceptable”.

2.4 Consider the ALoSP that encompasses the 6 safety performance indicators (SPIs) in Figure 1 above. While it may be possible to determine whether performance of a single indicator falls within or outside the ‘acceptable’ range (for example by assessing whether the target or trigger levels for that indicator were met or exceeded), it is significantly more difficult to assess whether the safety performance of a State as a whole has been ‘acceptable’. How an ALoSP is to be expressed in terms of safety performance targets and safety performance indicators requires more clarification. For example, given that ALoSP is expressed in terms of targets and indicators, would the inability to meet the safety performance target for a single SPI be considered not meeting the ALoSP? How many SPIs would need to show unsatisfactory outcomes for the State to conclude that it does not meet its ALoSP? Should a

smaller subset of more critical safety performance indicators be selected to represent the ALoSP? If so, should these SPIs be weighted and how does the State determine which areas carry a heavier or lesser weighting? Should the determination of whether the safety performance of the State has been acceptable take into consideration mitigating circumstances that may be outside of the control of the State?

2.5 The determination of what would constitute a level of safety performance that is acceptable can also be complicated by public expectations as well as the local cultural and political context. In order to develop a more straightforward criteria for an acceptable level of safety performance, some States may distill its safety performance into a single indicator and target of the highest consequence, expressed in terms of number of accidents or fatalities. States that have done so face non-safety complications, such as political sensitivity in having to express an ‘acceptable’ accident rate.

2.6 The States co-sponsoring this paper have taken different approaches to address this issue. Some have taken the approach of determining whether it has achieved an acceptable level of safety performance in more dynamic and subjective manner, by periodically considering the State's safety performance through a management review process. The review is informed by its suite of safety performance indicators, whether targets were met, whether trigger values were exceeded, and whether mitigating actions put in place were successful in arresting the safety concerns. The approach to determining its ALoSP is therefore described more as a process, rather than as a specific pre-defined desired outcome. While this approach addresses the issue of how the State manages its acceptable level of safety performance, the fundamental question remains unanswered: what is the State's acceptable level of safety performance?

2.7 It is clear from the challenges faced by States in meeting the Annex 19 Standard on ALoSP that there needs to be greater clarity on the concept of ALoSP, particularly in relation to how it should be implemented in practice. One consideration could be to avoid the use of the word ‘acceptable’ given its sensitivity. The experience of States that have embarked on their SSP implementation would be useful in the review of the ALoSP concept.

3. CONCLUSION

3.1 States that have embarked on their SSP implementation have encountered challenges with implementing the concept of ALoSP. While the purpose of ALoSP may be clear, the way to implement it is not. With more States expected to implement SSP going forward, it is important to revisit and review the ALoSP concept, taking into consideration the experience of States that have sought to implement it.

3.2 In light of the above, the Conference is invited to agree to the following recommendation:

Recommendation 6.2.1/X – Challenges with the implementation of the concept of acceptable level of safety performance

That the Conference:

- a) note the challenges faced by States in implementing acceptable level of safety performance (ALoSP); and
- b) request ICAO to review the ALoSP concept, taking into consideration the experience of States that have sought to implement ALoSP.