



Agenda Item *: Aviation Safety Matters

4.3 State Safety Programme/Safety Management Systems (SSP/SMS)

**THE ELEMENTS OF SSP/SMS
(SAFETY CULTURE AND JUST CULTURE CRITICAL)**

(Presented by International Federation of Air Traffic Controllers' Associations)

SUMMARY ICAO has done significant work towards the evolution of safety in civil aviation. States need to work expeditiously to develop a safety culture that includes just culture as a necessary element as well as implementing on a phased basis the various elements of SSP/SMS.	
References: • Annexes 1, 6, 8, 11, 13 and 14 • Safety Management Manual (SMM) (Doc 9859) • <i>State Letter AN 12/52.1-08/70 dated 13/1108 – States Safety Programme (SSP) in States</i>	
Strategic Objectives	<i>This working paper is related to Strategic Objectives A2.</i>

1. Introduction

1.1 The requirements for Safety Management Systems and States Safety Programmes are significant steps to the evolution of safety in civil aviation. Despite assistance from ICAO through its implementation courses, States have had difficulty in implementing their SSP and ensuring the implementation of SMS for providers. There are many reasons for this, but chief among them is the lack of political will and the slow evolution of a safety culture within these states. This paper proposes that a focus on the some of the critical elements of SSP/SMS rather than the whole would spur implementation.

2 Accountable Executive

2.1 The experiences of organizations that have introduced SMS and the current literature all indicate that developing SMS and SSP programmes will take a long time and is a very involved process. This has no doubt proved daunting, especially for small states and small services providers. However, a close reading of the ICAO SMS manual would show that a main feature of both SSP and SMS is the implementation plan, which, if done correctly, would break the programmes into manageable elements. Such an implementation plan would then clearly show where a State or organization stood with regard to managing safety. The lack of movement in this direction suggests a lack of political will on the part of States to take the necessary steps. With regard to the SSP, the first such step would be the selection and appointment of the Accountable Executive with a clear mandate to develop a safety policy and an implementation plan. Once this step is taken, the State would be well on its way to implementing an SSP and enabling providers to develop SMS.

3 State ALoS, Hazard Identification and Risk Management

3.1 After introducing the requirement for SMS and developing its SMS implementation courses, ICAO found the need to develop and introduce the SSP implementation course. In time a review of the SSP implementation courses should determine that further assistance is needed from ICAO to enable effective implementation of SSP and SMS. First, while the SSP implementation course is well constructed and gives a good foundation of what is required to implement an SSP, more is required. This can be done in the form of an implementation workshop geared towards providing more detailed assistance to one or a relatively small number of States with their gap analyses and implementation schemes.

3.2 Such a workshop would be focused on using the actual legislation and the aviation framework of the State(s) concerned. This means that at the end of such a workshop a State will have done an actual gap analysis and have the start of an actual implementation plan. While this would take some effort on the part of ICAO or some other entity to develop, the benefit would be quicker and more effective implementation.

3.3 State Acceptable Level of Safety has proven to be one of the elements that is difficult to understand. ALoS is a critical element of a mature SSP and SMS. It is necessary therefore that there is no ambiguity among States and among the providers. ICAO can assist by developing a more detailed module to assist States to develop ALoS.

3.4 Hazard Identification and Risk Management are elements, similar to ALoS, that have proved difficult to grasp. As such, developing more detailed modules will assist States to more effectively implement these elements.

3.5 While an implementation workshop would necessarily need to be hands on, modules in ALoS, hazard identification and risk management can be developed and deployed as online training, so as to be more affordable and accessible as and when needed by States.

4 Just Culture

4.1 An independent accident and investigation process is a critical element of the state safety programme. Such a process can only achieve the objectives of Annex 13 within a safety culture that promotes just culture. The current SSP training says little about just culture. Most of the stakeholders in aviation have accepted that just culture is necessary to maintain and improve the current levels of safety.

4.2 States that do not ensure the development of just culture, which fosters an environment for reporting of hazard and safety concerns, leaves in place an obstacle to the collection of the data needed to adequately analyze and assess the level of safety of the aviation system.

5. Safety Culture

5.1 Underpinning the evolution of safety management is the safety culture within the States and within the organizations. As we move to adopt more predictive methods of managing safety it is necessary to have a mature safety culture to ensure the effectiveness of these methods. It is still open to debate whether it is necessary to have a mature safety culture before these methods are introduced or whether introducing these methods contribute to the development of a mature safety culture. With that caveat States should consider the promotion of these methods within their safety programme.

5.2 Threat and Error Management training is now a requirement in Annex I for pilot and air traffic controller licenses. States need to ensure that training institutions have amended their syllabi and have developed modules that effectively carry out this training. This will ensure that new license holders enter the aviation system already equipped to employ proactive and predictive methods of safety.

5.3 Most of the current pilots and air traffic controllers within the region would not have been exposed to the threat and error management framework. States should, therefore, ensure that threat and error management training is part of airlines operators and air navigation services provider's safety management system programmes.

5.4 Line Operations Safety Audit is now a mature process for many airlines and has proven to be an important element of their safety programmes. Normal Operations Safety Survey, like LOSA, is based on the threat and error management framework and has is proving that it can be just as effective for ANSPs as it has been for airline operators. States should therefore promote the introduction of NOSS and LOSA as part of SMS.

5.5 Runway safety programmes that make use of runway safety teams that include airport personnel, airline operators and air traffic services have been effective in improving safety at many airports. The programmes promote sharing of safety data and lessons across organization and thus improve the safety culture within a State. States should therefore promote these programmes as part of their initial safety programme.

6 Conclusion

6.1 States have found some difficulty in implementing the SARPs related to SSP and SMS. While it is accepted that the SSP is a significant undertaking, focusing on the elements of the programme and developing an effective implementation plan would enable States to begin implementation in the near term.

6.2 ICAO may need to provide more detailed assistance to State to ensure effective implementation of elements of the SSP and SMS.

7 Suggested Action

7.1 The meeting is invited to:

- a) note the information contained in this working paper;
- b) urge ICAO to consider the development of an SSP implementation workshop to assist individual States with their SSP gap analyses and implementation plans.
- c) urge ICAO to consider the development of more detailed modules for elements of the SSP implementation course such as ALoS, hazard identification and risk management.
- d) urge States to promote the developments of a safety culture that includes just culture and the introduction of predictive methods of managing safety, which may foster the evolution of a safety culture.
- e) take any other action deemed necessary with regard to the implementation of SSP/SMS in the E/CAR Region.

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