



APPENDIX xx to Doc 9859

GUIDANCE ON THE DEVELOPMENT OF A STATE'S SAFETY PROGRAMME (SSP) GAP ANALYSIS

1. Background

In accordance with the Standards and Recommended Practices (SARPs) contained in ICAO Annex 6 — Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes, and Part III — International Operations — Helicopters, ICAO Annex 11 — Air Traffic Services, and ICAO Annex 14 — Aerodromes, Volume I — Aerodrome Design and Operations, States are responsible for the implementation of a safety programme in order to achieve an acceptable level of safety for the activities performed by the service providers. The State Safety Programme (SSP) is an integrated set of regulations and activities aimed at improving safety.

2. Gap analysis

The implementation of an SSP requires the State conducts an analysis of its safety system to determine which components and elements of an SSP are currently in place and which components and elements must be added or modified to meet the implementation requirements. This analysis is known as gap analyses, and it involves comparing the SSP requirements against the existing resources in the State.

This guidance provides, in checklist format, information to assist in the evaluation of the components and elements that comprise the ICAO SSP framework and to identify the components and elements that will need to be developed. Once the gap analysis is complete and documented, it will form one basis of the SSP implementation plan.

The gap analysis form included in this guide can be used as a template to conduct a gap analysis. Each question is designed for a “yes” or “no” response. A “yes” answer indicates that the State already has component or element of the ICAO SSP framework in question incorporated into its safety system, whether it matches or exceeds the requirement. A “no” answer indicates that a gap exists between the component/element of the ICAO SSP framework and the safety system in the State.

Note. – Within the context of this guidance the term “service provider” refers to any organization providing aviation services. The term includes approved training organizations, aircraft operators, maintenance organizations, organizations responsible for type design and/or assembly of aircraft, air traffic services providers and certified aerodrome operators, as applicable.

3. ICAO SSP framework

The ICAO SSP framework comprises four components of the framework contains eleven elements, outlined hereunder:

1. State's safety policy and objectives

- 1.1 CAA safety standards
- 1.2 CAA safety responsibilities and accountabilities
- 1.3 Accident and incident investigation
- 1.4 Enforcement policy

2. State's safety risk management

- 2.1 Safety requirements for service providers SMS
- 2.2 Approval of service provider's acceptable levels of safety

3. State's safety assurance

- 3.1 Safety oversight
- 3.2 Safety data collection, analysis and exchange
- 3.3 Safety data driven targeting of oversight on areas of greater concern or need

4. State's safety promotion

- 4.1 Internal training, communication and dissemination of safety information
- 4.2 External training, communication and dissemination of safety information

State's safety programme (SSP) gap analysis

ICAO reference	Aspects to be analyzed or question to be answered	Answer	Status of implementation
Component N° 1 – STATE'S SAFETY POLICIES AND OBJECTIVES			
Element 1.1 – Civil Aviation Authority (CAA) safety standards			
	Has the State have promulgated a national legislative framework and specific regulations to allow oversight of the management of safety in the State?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Does the State participate in specific activities related to the management of safety in the State?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Has the State established requirements, responsibilities and accountabilities regarding the management of safety in the State by the civil aviation authority?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Are safety standards are periodically reviewed to ensure they remain relevant and appropriate to the State?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Are safety standards periodically reviewed within the CAA to ensure that they are up-to-date with respect to international standards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Is the SSP with its defined components and elements established, maintained and adhered to?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Is the SSP appropriate to the scope and complexity of the aviation operations in the State?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Has the State established a safety policy?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Is the State's safety policy approved by the CAA accountable manager or higher authority within the State?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Is the State's safety policy promoted by the CAA accountable manager?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Is the State's safety policy reviewed periodically?	<input type="checkbox"/> Yes <input type="checkbox"/> No	

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	Is the State's safety policy communicated with visible endorsement to all employees in the CAA with the intent that they are made aware of their individual safety responsibilities?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Has the CAA developed documentation that describes the SSP, including the interrelationship between its components and elements?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Does the CAA have a records system that ensures the generation and retention of all records necessary to document and support the SSP activities?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Does the records system provide the control processes necessary to ensure appropriate identification, legibility, storage, protection, archiving, retrieval, retention time, and disposition of records?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Element 1.2 – CAA safety responsibilities and accountabilities			
	Does the State have identified and defined the CAA's requirements, responsibilities and accountabilities regarding the establishment and maintenance of the SSP?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Do the requirements include directives and activities to plan, organize, develop, control and continuously improve the SSP in a manner that meets the State's safety needs?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Do the requirements include a clear statement about the provision of the necessary human and financial resources for the implementation and maintenance of the SSP?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Has the CAA identified and appointed as accountable manager a qualified person having direct responsibility for the SSP implementation, operation and supervision?	<input type="checkbox"/> Yes <input type="checkbox"/> No	

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	Is the accountable manager responsibility for ensuring that the State's safety programme is performing to requirements in all areas of the CAA explicitly addressed?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Does the accountable manager have control of the financial and human resources required for the proper execution of the SSP?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Does the person overseeing operation and supervision of the State's safety programme fulfil the required job functions and responsibilities?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Are CAA personnel safety responsibilities and accountabilities, at all levels, regarding the SSP well defined and documented?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Do all CAA personnel understand their authorities, responsibilities and accountabilities in regards of the SSP and all safety management processes, decisions and actions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Element 1.3 – Accident and incident investigation			
	Has the State established an independent accident and incident investigation process, the sole objective which is to support the management of safety in the State and not the apportioning of blame on liability?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Element 1.4 – Enforcement policy			
	Has the State promulgated an enforcement policy that allows service providers to deal with, and resolve safety deviations and minor violations internally, within the context of the service provider safety management system (SMS), to the satisfaction of the authority?	<input type="checkbox"/> Yes <input type="checkbox"/> No	

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	Does the enforcement policy include provisions for the CAA to deal with events involving gross negligence and wilful deviations through established enforcement procedures?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Component N° 2 – STATE’S SAFETY RISK MANAGEMENT			
Element 2.1 – Safety requirements for service providers SMS			
	Has the CAA established the regulatory controls and developed associated guidance material governing how service providers will identify operational hazards and manage safety risks?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Do these controls include operating regulations and implementation policies for SMS service providers?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Are the operating regulations periodically reviewed to ensure they remain relevant and appropriate to the service providers?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Is there a structured process within the CAA to assess how the service providers will manage the risks associated with identified hazards, expressed in terms of probability and severity of occurrence?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Has the CAA established criteria for evaluating risk?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Has the CAA established criteria and/or guidelines to define risk tolerability?		
	Has the CAA risk management strategies, including corrective/preventive action plans, to address recurrence of documented occurrences and deficiencies?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Have the CAA formal processes for evaluating the effectiveness of the corrective/preventive measures that have been developed?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Has the CAA formally documented risk management strategies for corrective/preventive actions, including timelines?	<input type="checkbox"/> Yes <input type="checkbox"/> No	

ICAO reference	Aspects to be analyzed or question to be answered	Answer	Status of implementation
	Is there a policy in place that ensures effective safety reporting of safety deficiencies, hazards or occurrences including the conditions under which protection from disciplinary and /or administrative action applies?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Element 2.2 – Approval of service providers acceptable levels of safety			
	Does the CAA have individually agreed on, and approved, acceptable levels of safety with service providers?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Are the agreed acceptable levels of safety commensurate to the complexity of individual service provider's specific operational contexts?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Do agreed acceptable levels of safety consider individual service provider's resources to address safety risks?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Are agreed acceptable levels of safety expressed by multiple safety indicators and safety targets, as opposed to a single one, as well as by safety requirements?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Are agreed acceptable levels of safety periodically reviewed to ensure they remain relevant and appropriate to the service providers?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Component N° 3 – STATE'S SAFETY ASSURANCE			
Element 3.1 – Safety oversight			
	Has the CAA established mechanisms to ensure that the identification of operational hazards and the management of safety risks by service providers follow established regulatory controls? (e.g., requirements, specific operating regulations and implementation policies)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Do established mechanisms include inspections, audits and surveys to ensure that regulatory safety risk controls are appropriately integrated into the SMS service providers?	<input type="checkbox"/> Yes <input type="checkbox"/> No	

ICAO reference	Aspects to be analyzed or question to be answered	Answer	Status of implementation
	Do established mechanisms ensure that regulatory safety risk controls are practised as designed?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Do established mechanisms ensure that regulatory safety risk controls have the intended effect on safety risks?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Are regular and periodic reviews conducted regarding the CAA's safety performance?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Do reviews consider changes that could affect the State's safety programme, recommendations for improvement and sharing of best practices across the CAA?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Is there a process to evaluate the effectiveness of changes related to the SSP?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Is there a formal process within the CAA to develop and maintain a set of performance parameters to measure the effectiveness of the SSP?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Element 3.2 – Safety data collection, analysis and exchange			
	Has the CAA established mechanisms to ensure the capture and storage of data on operational hazards and safety risks at the State's level?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Has the CAA had also established mechanisms to develop information from the stored data, and promote the exchange of safety information with service providers and/or other States as appropriate?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Element 3.3 – Safety data driven targeting of oversight on areas of greater concern or need			
	Has CAA has procedures to prioritize inspections, audits and surveys towards those areas of greater safety concern or need, as identified by the analysis of data on operational hazards and safety risks areas?	<input type="checkbox"/> Yes <input type="checkbox"/> No	

ICAO reference	Aspects to be analyzed or question to be answered	Answer	Status of implementation
Component N° 4 – STATE'S SAFETY PROMOTION			
Element 4.1 – Internal training, communication and dissemination of safety information			
	Does the CAA provide internal training, awareness, and two-way communication of safety-relevant information within the CAA?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Are there communication processes in place within the CAA that permit the safety programme to function effectively?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Are communication processes (written, meetings, electronic, etc.) commensurate with the size and scope of the CAA?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Is information established and maintained in a suitable medium?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Is there a process for the dissemination of safety information throughout the CAA and a means of monitoring the effectiveness of this process?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Element 4.2 – External training, communication and dissemination of safety information			
	Does the CAA provide external education, awareness of safety risks and two-way communication of safety-relevant information?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Does the CAA encourage safety communications and actively manage safety within the State?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Are there communication processes in place within the CAA that allow the SSP to be nationally and internationally promoted?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Are communication processes (written, meetings, electronic, etc.) commensurate with the size and scope of the CAA?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Is information established and maintained in a suitable medium?	<input type="checkbox"/> Yes <input type="checkbox"/> No	



<i>ICAO reference</i>	<i>Aspects to be analyzed or question to be answered</i>	<i>Answer</i>	<i>Status of implementation</i>
	Is there a formal process for the external dissemination of safety information throughout the State, and means of monitoring the effectiveness of this process?	<input type="checkbox"/> Yes <input type="checkbox"/> No	