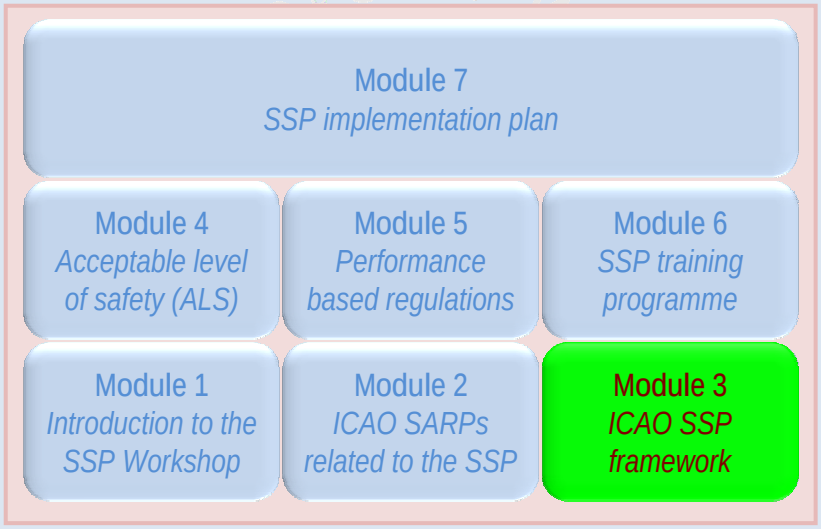
International Civil Aviation Organization

AFI Comprehensive Implementation Programme (ACIP)

ICAO Regional Workshop on State Safety Programme (SSP) Implementation

Module 3 – ICAO SSP framework

SSP – A structured approach



Objectives

- *Describe the ICAO SSP framework, its components and elements as the means to implement the SSP.*
- *Explain the role of the SSP in supporting the implementation of SMS by service providers.*

Contents

- SSP – ICAO requirements
- SSP development
- SSP components
- The bridge
- SMS requirements for service providers
- Safety management principles
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- Workshop # 1 – *Development of guidance on a State's regulation for its SSP*

SSP – ICAO requirements

- Definition
  - *An **integrated** set of regulations and activities aimed at improving safety.*
- Requirement
  - States shall establish a safety programme, in order to achieve an **acceptable level of safety** in [*the operation of aircraft, the maintenance of aircraft, the provision of air traffic services, aerodrome operations*].

SSP development

- SSP development is based upon basic safety management principles.
- SSP is the bridge that closes a gap that would otherwise inevitably develop between the internal and external safety processes of a State and the internal safety processes of service providers.

Basic safety management

1. Senior management's commitment to the management of safety.
2. Effective safety reporting.
3. Continuous monitoring through systems to collect, analyse, and share safety-related data arising from normal operations.

Basic safety management

4. Investigation of safety occurrences with the objective of identifying systemic safety deficiencies rather than assigning blame.
5. Sharing safety lessons learned and best practices through the active exchange of safety information.
6. Integration of safety training for operational personnel.

Basic safety management

7. Effective implementation of Standard Operating Procedures (SOPs).
8. Continuous improvement of the overall level of safety.

Basic safety management responsibilities

- These responsibilities fall into four basic areas:
  1. Definition of policies and procedures regarding safety.
  2. Allocation of resources for safety management activities.
  3. Adoption of best industry practices.
  4. Incorporating regulations governing civil aviation safety.

SSP – SMS components

SSP components	SMS components
1. State's safety policy and objectives	1. Safety policy and objectives
2. State's safety risk management	2. Safety risk management
3. State's safety assurance	3. Safety assurance
4. State's safety promotion	4. Safety promotion

The bridge

SMS requirements for service providers

- As part of the SSP, the State must promulgate SMS requirements for service providers requiring providers to demonstrate their safety management capability up front, rather than waiting for accidents, incidents, or non-compliance with safety standards.
- This allows both the State and service providers to get ahead of safety risks.

SMS requirements for service providers

- SMS requirements under the SSP also provide a structured framework allowing the State and service providers to interact more effectively in the resolution of safety concerns.
- In this way the shared, interactive nature of the SSP and service providers' SMS comes to fruition.

State responsibilities on safety risk management

- Comprehensive analysis of the State's aviation system.
- Rulemaking and policy development:
  - Regulations based on identifying hazards and analysis of the safety risks of the consequences of hazards.
  - Regulations provide a frameworks for safety risk control, when integrated into service providers SMS.

State responsibilities on safety assurance

- Oversight activities are supported by analysis, with resource allocation priorities based on safety risks of the consequences of hazards identified through analysis.
- Safety performance monitoring is based on the assessment of performance of service providers' processes, products and/or services (whether a service provider's SMS addresses hazards).
- Compliance monitoring is based on conventional auditing.

State responsibilities on safety promotion

- CAA personnel must possess:
  - High levels of technical knowledge and skills.
  - Additional skills in areas such as risk analysis, system evaluation, and management system assessment.
  - Knowledge on new technologies essential for the aviation industry to achieve its production objectives.
- State must communicate its SSP internally and externally.

State responsibilities on safety policy and objectives

- The SSP can only be effectively implemented as part of an overall framework of responsibilities and accountabilities.
- The SSP must include explicit policies, procedures, management controls, documentation, and corrective action processes to keep the State safety management efforts on track.

ICAO SSP framework

Development and implementation

ICAO SMS framework

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 providers 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

1. State's safety policy and objectives

1.1 CAA safety standards

- The State has promulgated a national legislative framework and specific regulations to ensure compliance with international and national standards, and that defines how the CAA will oversee the management of safety in the State.
- This includes the CAA's participation in specific activities related to the management of safety in the State, and the establishment of the roles, responsibilities, accountability and relationships of organizations in the system.
- The safety standards are periodically reviewed to ensure they remain relevant and appropriate to the State.

1. State's safety policy and objectives

1.2 CAA safety responsibilities and accountabilities

- The State has identified and defined the CAA's requirements, responsibilities and accountabilities regarding the establishment and maintenance of the State's safety programme.
- This includes the directives to plan, organize, develop, control and continuously improve the State's safety programme in a manner that meets the State's safety needs.
- It also includes a clear statement about the provision of the necessary human and financial resources for the implementation of the State's safety programme.

1. State's safety policy and objectives

1.3 Accident and incident investigation

- The State has established an independent accident and incident investigation process, the sole objective of which is to support the management of safety in the State and not the apportioning of blame on liability.

1. State's safety policy and objectives

1.4 Enforcement policy

- The State has promulgated an enforcement policy that allows service providers to deal with, and resolve, events involving safety deviations and minor violations internally, within the context of the service provider safety management system (SMS), to the satisfaction of the authority.
- The enforcement policy includes provisions for the CAA to deal with events involving gross negligence and wilful deviations through established enforcement procedures.

2. State's safety risk management

2.2 Approval of service providers acceptable levels of safety

- The CAA has agreed on, and approved, acceptable levels of safety with individual service providers.
- These acceptable levels of safety are commensurate to the complexity of individual service provider's specific operational contexts and the availability of individual service provider's resources to address safety risks.

2. State's safety risk management

2.2 Approval of service providers acceptable levels of safety

- The agreed acceptable levels of safety are expressed by multiple safety performance indicators and safety performance targets, never by a single one, as well as by safety requirements.
- The agreed acceptable levels of safety are periodically reviewed to ensure they remain relevant and appropriate to the service providers.

State's safety assurance

3.1 Safety oversight

- The CAA has established mechanisms to ensure that the identification of operational hazards and the management of safety risks by service providers follow established regulatory controls (requirements, specific operating regulations and implementation policies).
- These mechanisms include inspections, audits and surveys to ensure that regulatory safety risk controls are appropriately integrated into the service providers' SMS, that they are being practiced as designed, and that the regulatory controls have the intended effect on safety risks.

State's safety assurance

3.2 Safety data collection, analysis and exchange

- The CAA has established mechanisms to ensure the capture and storage of data on operational hazards and safety risks at an aggregate State's level.
- The CAA has also established mechanisms to develop information from the stored data, and to actively exchange safety information with service providers and/or other States as appropriate.

State's safety assurance

3.3 Safety data driven targeting of oversight on areas of greater concern or need

- The CAA has established 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.

State's safety promotion

4.1 Internal training, communication and dissemination of safety information

- The CAA provides training, awareness, and two-way communication of safety relevant information to support, within the CAA, the development of a positive organizational culture that fosters the development of an effective and efficient State's safety programme.

State's safety promotion

4.2 External training, communication and dissemination of safety information

- The CAA provides education, awareness of safety risks and two-way communication of safety relevant information to support among services providers the development of a positive organizational culture that fosters safe practices, encourages safety communications and actively manages safety with the same attention to results as financial management.

Points to remember

- *SSP – SMS components*
- *Safety management principles*
- *ICAO SSP framework*

ICAO SSP framework

Workshop # 1 – *Development of guidance on a State's regulation for its SSP*

Working group activities

- Participants will be divided into groups.
- A facilitator will be appointed, who will coordinate the discussions and activities of each group.
- A summary of discussions will be written *(flip charts or electronic forms).*
- A draft report, using the form provided to this effect, will be prepared for its presentation in the plenary sessions, and a member of the group will brief on the results.

Objective

- To develop guidance of a draft State's regulation for the State's Safety Programme (SSP) on the basis of the SSP ICAO framework (See Slide 20) and taking into account the following main aspects:
  a) Statutory basis
  b) Scope
  c) Applicability and acceptance
  d) References
  e) Definitions
  f) General
  g) Applicable regulations

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