

Safety Management SARPs (Extract)

ANNEX 6 – Operation of Aircraft (Amdt 33-B)

Part I – Commercial Air Transport Aeroplanes

3.3 Safety management

3.3.1 States shall establish a State safety programme in order to achieve an acceptable level of safety in civil aviation.

Note.— A framework for the implementation and maintenance of a State safety programme is contained in Attachment J, and guidance on a State safety programme is contained in the Safety Management Manual (SMM) (Doc 9859).

3.3.2 The acceptable level of safety to be achieved shall be established by the State.

Note.— Guidance on defining an acceptable level of safety is contained in the Safety Management Manual (SMM) (Doc 9859).

3.3.3 States shall require, as part of their State safety programme, that an operator implement a safety management system acceptable to the State of the Operator that, as a minimum:

- a) identifies safety hazards;
- b) ensures the implementation of remedial action necessary to maintain agreed safety performance;
- c) provides for continuous monitoring and regular assessment of the safety performance; and
- d) aims at a continuous improvement of the overall performance of the safety management system.

Note.— Guidance on defining safety performance is contained in the Safety Management Manual (SMM) (Doc 9859).

3.3.4 A safety management system shall clearly define lines of safety accountability throughout the operator's organization, including a direct accountability for safety on the part of senior management.

Note.— The framework for the implementation and maintenance of a safety management system is contained in Appendix 7. Guidance on safety management systems is contained in the Safety Management Manual (SMM) (Doc 9859).

3.3.5 **Recommendation.**— *An operator of an aeroplane of a certificated take-off mass in excess of 20 000 kg should establish and maintain a flight data analysis programme as part of its safety management system.*

3.3.6 An operator of an aeroplane of a maximum certificated take-off mass in excess of 27 000 kg shall establish and maintain a flight data analysis programme as part of its safety management system.

Note.— An operator may contract the operation of a flight data analysis programme to another party while retaining overall responsibility for the maintenance of such a programme.

3.3.7 A flight data analysis programme shall be non-punitive and contain adequate safeguards to protect the source(s) of the data.

Note 1.— Guidance on flight data analysis programmes is contained in the Safety Management Manual (SMM) (Doc 9859).

Note 2.— Legal guidance for the protection of information from safety data collection and processing systems is contained in Annex 13, Attachment E.

3.3.8 An operator shall establish a flight safety documents system, for the use and guidance of operational personnel, as part of its safety management system.

Note.— Guidance on the development and organization of a flight safety documents system is provided in Attachment H.

Aeroplane Maintenance

8.7.3 Safety management

8.7.3.1 States shall establish a State safety programme in order to achieve an acceptable level of safety in civil aviation.

Note.— A framework for the implementation and maintenance of a State safety programme is contained in Attachment J, and guidance on a State safety programme is contained in the Safety Management Manual (SMM) (Doc 9859).

8.7.3.2 The acceptable level of safety to be achieved shall be established by the State.

Note.— Guidance on defining an acceptable level of safety is contained in the Safety Management Manual (SMM) (Doc 9859).

8.7.3.3 States shall require, as part of their State safety programme, that a maintenance organization implement a safety management system acceptable to the State that, as a minimum:

- a) identifies safety hazards;
- b) ensures the implementation of remedial action necessary to maintain agreed safety performance;
- c) provides for continuous monitoring and regular assessment of the safety performance; and
- d) aims at a continuous improvement of the overall performance of the safety management system.

Note.— Guidance on defining safety performance is contained in the Safety Management Manual (SMM) (Doc 9859).

8.7.3.4 A safety management system shall clearly define lines of safety accountability throughout a maintenance part of senior management.

Note.— The framework for the implementation and maintenance of a safety management system is contained in Appendix 7. Guidance on safety management systems is contained in the Safety Management Manual (SMM) (Doc 9859).

Part II, International General Aviation — Aeroplanes

Section 3 - Large and Turbojet Aeroplanes

3.3.2 Safety management system

3.3.2.1 An operator shall establish and maintain a safety management system that is appropriate to the size and complexity of the operation.

3.3.2.2 **Recommendation.**— *The safety management system should as minimum include:*

- a) a process to identify actual and potential safety hazards and assess the associated risks;*
- b) a process to develop and implement remedial action necessary to maintain an acceptable level of safety; and*
- c) provision for continuous monitoring and regular assessment of the appropriateness and effectiveness of safety management activities.*

Note.— Guidance on safety management systems is contained in the Safety Management Manual (SMM) (Doc 9859) and industry codes of practice.

Part III- International Operations Helicopters

SECTION II. INTERNATIONAL COMMERCIAL AIR TRANSPORT

1.3 Safety management

1.3.1 States shall establish a State safety programme in order to achieve an acceptable level of safety in civil aviation.

Note.— A framework for the implementation and maintenance of a State safety programme is contained in Attachment J, and guidance on a State safety programme is contained in the Safety Management Manual (SMM) (Doc 9859).

1.3.2 The acceptable level of safety to be achieved shall be established by the State.

Note.— Guidance on defining an acceptable level of safety is contained in the Safety Management Manual (SMM) (Doc 9859).

1.3.3 States shall require, as part of their State safety programme, that an operator implement a safety management system acceptable to the State of the Operator that, as a minimum:

- a) identifies safety hazards;
- b) ensures the implementation of remedial action necessary to maintain agreed safety performance;
- c) provides for continuous monitoring and regular assessment of the safety performance; and
- d) aims at a continuous improvement of the overall performance of the safety management system.

Note.— Guidance on defining safety performance is contained in the Safety Management Manual (SMM) (Doc 9859).

1.3.4 A safety management system shall clearly define lines of safety accountability throughout the operator's organization, including a direct accountability for safety on the part of senior management.

Note.— The framework for the implementation and maintenance of a safety management system is contained in Appendix 4. Guidance on safety management systems is contained in the Safety Management Manual (SMM) (Doc 9859).

1.3.5 **Recommendation.**— *An operator of a helicopter of a certified take-off mass in excess of 7 000 kg or having a passenger seating configuration of more than 9 and fitted with a flight data recorder should establish and maintain a flight data analysis programme as part of its safety management system.*

Note.— An operator may contract the operation of a flight data analysis programme to another party while retaining overall responsibility for the maintenance of such a programme.

1.3.6 A flight data analysis programme shall be non-punitive and contain adequate safeguards to protect the source(s) of the data.

Note 1.— Guidance on flight data analysis programmes is contained in the Safety Management Manual (SMM) (Doc 9859).

Note 2.— Legal guidance for the protection of information from safety data collection and processing systems is contained in Annex 13, Attachment E.

1.3.7 An operator shall establish a flight safety documents system, for the use and guidance of operational personnel, as part of its safety management system.

Note.— Guidance on the development and organization of a flight safety documents system is provided in Attachment G.

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APPENDIX 7.

FRAMEWORK FOR SAFETY MANAGEMENT SYSTEMS (SMS)

(See Chapter 3, 3.3.4, and Chapter 8, 8.7.3.4)

This appendix specifies the framework for the implementation and maintenance of a safety management system (SMS) by an operator or an approved maintenance organization. An SMS is a management system for the management of safety by an organization. The framework includes four components and twelve elements representing the minimum requirements for SMS implementation. The implementation of the framework shall be commensurate with the size of the organization and the complexity of the services provided. This appendix also includes a brief description of each element of the framework.

1. Safety policy and objectives
 - 1.1 Management commitment and responsibility
 - 1.2 Safety accountabilities
 - 1.3 Appointment of key safety personnel
 - 1.4 Coordination of emergency response planning
 - 1.5 SMS documentation
2. Safety risk management
 - 2.1 Hazard identification
 - 2.2 Safety risk assessment and mitigation
3. Safety assurance
 - 3.1 Safety performance monitoring and measurement
 - 3.2 The management of change
 - 3.3 Continuous improvement of the SMS
4. Safety promotion
 - 4.1 Training and education
 - 4.2 Safety communication

1. Safety policy and objectives

1.1 Management commitment and responsibility

The operator/approved maintenance organization shall define the organization's safety policy which shall be in accordance with international and national requirements, and which shall be

signed by the accountable executive of the organization. The safety policy shall reflect organizational commitments regarding safety; shall include a clear statement about the provision of the necessary resources for the implementation of the safety policy; and shall be communicated, with visible endorsement, throughout the organization. The safety policy shall include the safety reporting procedures; shall clearly indicate which types of operational behaviours are unacceptable; and shall include the conditions under which disciplinary action would not apply. The safety policy shall be periodically reviewed to ensure it remains relevant and appropriate to the organization.

1.2 Safety accountabilities

The operator/approved maintenance organization shall identify the accountable executive who, irrespective of other functions, shall have ultimate responsibility and accountability, on behalf of the operator/approved maintenance organization, for the implementation and maintenance of the SMS. The operator/approved maintenance organization shall also identify the accountabilities of all members of management, irrespective of other functions, as well as of employees, with respect to the safety performance of the SMS. Safety responsibilities, accountabilities and authorities shall be documented and communicated throughout the organization, and shall include a definition of the levels of management with authority to make decisions regarding safety risk tolerability.

1.3 Appointment of key safety personnel

The operator/approved maintenance organization shall identify a safety manager to be the responsible individual and focal point for the implementation and maintenance of an effective SMS.

1.4 Coordination of emergency response planning

The operator/approved maintenance organization shall ensure that an emergency response plan that provides for the orderly and efficient transition from normal to emergency operations and the return to normal operations is properly coordinated with the emergency response plans of those organizations it must interface with during the provision of its services.

1.5 SMS documentation

The operator/approved maintenance organization shall develop an SMS implementation plan, endorsed by senior management of the organization, that defines the organization's approach to the management of safety in a manner that meets the organization's safety objectives. The organization shall develop and maintain SMS documentation describing the safety policy and objectives, the SMS requirements, the SMS processes and procedures, the accountabilities, responsibilities and authorities for processes and procedures, and the SMS outputs. Also as part of the SMS documentation, the operator/approved maintenance organization shall develop and maintain a safety management system manual (SMSM), to communicate its approach to the management of safety throughout the organization.

2. Safety risk management

2.1 Hazard identification

The operator/approved maintenance organization shall develop and maintain a formal process that ensures that hazards in operations are identified. Hazard identification shall be based on a combination of reactive, proactive and predictive methods of safety data collection.

2.2 Safety risk assessment and mitigation

The operator/approved maintenance organization shall develop and maintain a formal process that ensures analysis, assessment and control of the safety risks in flight/maintenance operations.

3. Safety assurance

3.1 Safety performance monitoring and measurement

The operator/approved maintenance organization shall develop and maintain the means to verify the safety performance of the organization and to validate the effectiveness of safety risk controls. The safety performance of the organization shall be verified in reference to the safety performance indicators and safety performance targets of the SMS.

3.2 The management of change

The operator/approved maintenance organization shall develop and maintain a formal process to identify changes within the organization which may affect established processes and services; to describe the arrangements to ensure safety performance before implementing changes; and to eliminate or modify safety risk controls that are no longer needed or effective due to changes in the operational environment.

3.3 Continuous improvement of the SMS

The operator/approved maintenance organization shall develop and maintain a formal process to identify the causes of substandard performance of the SMS, determine the implications of substandard performance of the SMS in operations, and eliminate or mitigate such causes.

4. Safety promotion

4.1 Training and education

The operator/approved maintenance organization shall develop and maintain a safety training programme that ensures that personnel are trained and competent to perform the SMS duties. The scope of the safety training shall be appropriate to each individual's involvement in the SMS.

4.2 Safety communication

The operator/approved maintenance organization shall develop and maintain formal means for safety communication that ensures that all personnel are fully aware of the SMS, conveys safety-critical information, and explains why particular safety actions are taken and why safety procedures are introduced or changed.

ATTACHMENT J.

FRAMEWORK FOR THE STATE SAFETY PROGRAMME (SSP)

This attachment introduces a framework for the implementation and maintenance of a State safety programme (SSP) by a State. An SSP is a management system for the management of safety by the State. The framework contemplates four components and eleven elements, outlined hereunder. The implementation of an SSP is commensurate with the size and complexity of the State's aviation system, and may require coordination among multiple authorities responsible for individual elements of civil aviation functions in the State. The SSP framework introduced in this attachment, and the safety management system (SMS) framework specified in Appendix 7, must be viewed as complementary, yet distinct, frameworks. This attachment also includes a brief description of each element of the framework.

1. State safety policy and objectives
 - 1.1 State safety legislative framework
 - 1.2 State safety responsibilities and accountabilities
 - 1.3 Accident and incident investigation
 - 1.4 Enforcement policy
2. State safety risk management
 - 2.1 Safety requirements for the service provider's SMS
 - 2.2 Agreement on the service provider's safety performance
3. State safety assurance
 - 3.1 Safety oversight
 - 3.2 Safety data collection, analysis and exchange
 - 3.3 Safety-data-driven targeting of oversight of areas of greater concern or need
4. State safety promotion
 - 4.1 Internal training, communication and dissemination of safety information
 - 4.2 External training, communication and dissemination of safety information

Note.— Within the context of this attachment the term “service provider” refers to any organization providing aviation services. The term includes approved training organizations that are exposed to safety risks during the provision of their services, aircraft operators, approved maintenance organizations, organizations responsible for type design

and/or manufacture of aircraft, air traffic services providers and certified aerodromes, as applicable.

1. State safety policy and objectives

1.1 State safety legislative framework

The State has promulgated a national safety legislative framework and specific regulations, in compliance with international and national standards, that define how the State will conduct the management of safety in the State. This includes the participation of State aviation organizations in specific activities related to the management of safety in the State, and the establishment of the roles, responsibilities and relationships of such organizations. The safety legislative framework and specific regulations are periodically reviewed to ensure they remain relevant and appropriate to the State.

1.2 State safety responsibilities and accountabilities

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

1.3 Accident and incident investigation

The State has established an independent accident and incident investigation process, the sole objective of which is the prevention of accidents and incidents, and not the apportioning of blame or liability. Such investigations are in support of the management of safety in the State. In the operation of the SSP, the State maintains the independence of the accident and incident investigation organization from other State aviation organizations.

1.4 Enforcement policy

The State has promulgated an enforcement policy that establishes the conditions and circumstances under which service providers are allowed to deal with, and resolve, events involving certain safety deviations, internally, within the context of the service provider's safety management system (SMS), and to the satisfaction of the appropriate State authority. The enforcement policy also establishes the conditions and circumstances under which to deal with safety deviations through established enforcement procedures.

2. State safety risk management

2.1 Safety requirements for the service provider's SMS

The State has established the controls which govern how service providers will identify hazards and manage safety risks. These include the requirements, specific operating

regulations and implementation policies for the service provider's SMS. The requirements, specific operating regulations and implementation policies are periodically reviewed to ensure they remain relevant and appropriate to the service providers.

2.2 Agreement on the service provider's safety performance

The State has agreed with individual service providers on the safety performance of their SMS. The agreed safety performance of an individual service provider's SMS is periodically reviewed to ensure it remains relevant and appropriate to the service providers.

3. State safety assurance

3.1 Safety oversight

The State has established mechanisms to ensure effective monitoring of the eight critical elements of the safety oversight function. The State has also established mechanisms to ensure that the identification of 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 provider's SMS, that they are being practised as designed, and that the regulatory controls have the intended effect on safety risks.

3.2 Safety data collection, analysis and exchange

The State has established mechanisms to ensure the capture and storage of data on hazards and safety risks at both an individual and aggregate State level. The State 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.

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

The State 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 hazards, their consequences in operations, and the assessed safety risks.

4. State safety promotion

4.1 Internal training, communication and dissemination of safety information

The State provides training and fosters awareness and two-way communication of safety-relevant information to support, within the State aviation organizations, the development of an organizational culture that fosters an effective and efficient SSP.

4.2 External training, communication and dissemination of safety information

The State provides education and promotes awareness of safety risks and two-way communication of safety-relevant information to support, among service providers, the development of an organizational culture that fosters an effective and efficient SMS.

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