ICAO

International Standards
and Recommended Practices

Annex 19 to the Convention on International Civil Aviation

Safety Management

Third Edition, November 2025



This edition supersedes, on 26 November 2026, all previous editions of Annex 19.

For information regarding the applicability of the Standards and Recommended Practices, see Chapter 2 and the Foreword.

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Amendments are announced in the supplements to the *Products and Services Catalogue;* the Catalogue and its supplements are available on the ICAO website at www.icao.int. The space below is provided to keep a record of such amendments.

RECORD OF AMENDMENTS AND CORRIGENDA

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No.	Date applicable	Date entered	Entered by
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CORRIGENDA			
No.	Date of issue	Date entered	Entered by

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ABBREVIATIONS

(used in this Annex)

ADREP	Accident/Incident Data Reporting
ATS	Air traffic services
CE	Critical element
CVR	Cockpit voice recorder
PANS	Procedures for Air Navigation Services
RAIO	Regional Accident and Incident Investigation Organization
RPAS	Remotely Piloted Aircraft System(s)
RSOO	Regional Safety Oversight Organization
SARPS	Standards and Recommended Practices
SDCPS	Safety data collection and processing system
SMM	Safety Management Manual
SMP	Safety Management Panel
SMS	Safety management system
SSO	State safety oversight
SSP	State safety programme

PUBLICATIONS

(referred to in this Annex)

Convention on International Civil Aviation (Doc 7300)

Annexes to the Convention on International Civil Aviation

Annex 1 – *Personnel Licensing*

Annex 6 – *Operation of Aircraft*
Part I – *International Commercial Air Transport – Aeroplanes*
Part II – *International General Aviation – Aeroplanes*
Part III – *International Operations – Helicopters*
Part IV – *International Operations – Remotely Piloted Aircraft Systems*

Annex 8 – *Airworthiness of Aircraft*

Annex 11 – *Air Traffic Services*

Annex 13 – *Aircraft Accident and Incident Investigation*

Annex 14 – *Aerodromes*
Volume I – *Aerodrome Design and Operations*
Volume II – *Heliports*

Manuals[1]

Global Aviation Safety Plan (GASP, Doc 10004)

Manual of Civil Aviation Medicine (Doc 8984)

Manual of Procedures for Operations Inspection, Certification and Continued Surveillance (Doc 8335)

Manual on Human Performance (HP) for Regulators (Doc 10151)

Manual on Regional Accident and Incident Investigation Organization (Doc 9946)

Manual on Remotely Piloted Aircraft Systems (*RPAS*) (Doc 10019)

Manual on the Development of Regional and National Aviation Safety Plans (Doc 10131)

Manual on the implementation of Article 83 bis *of the Convention on International Civil Aviation* (Doc 10059)

Policy and Guidance Material on the Economic Regulation of International Air Transport (Doc 9587)

1. The manuals referenced will be updated as necessary to harmonize the terminology with that used in this Annex.

Safety Intelligence Manual (Doc 10159)

Safety Management Manual (Doc 9859)

Safety Oversight Manual (Doc 9734)
Part A – *The Establishment and Management of a State Safety Oversight System*
Part B – *The Establishment and Management of a Regional Safety Oversight Organization*

FOREWORD

Historical background

The provisions in this Annex have been developed in response to recommendations provided by the Directors General of Civil Aviation Conference on a Global Strategy for Aviation Safety (Montréal, 20 to 22 March 2006) (DGCA/06) and the High-level Safety Conference (Montréal, 29 March to 1 April 2010) (HLSC/2010) regarding the need for an Annex dedicated to safety management. The Air Navigation Commission (186-8), having determined these issues to be of sufficient scope and importance, agreed to establish the Safety Management Panel (SMP) to provide recommendations for the development of this Annex.

The Standards and Recommended Practices (SARPs) in this Annex are intended to assist States in managing aviation safety risks. Given the increasing complexity of the global air transportation system and its interrelated aviation activities required to assure the safe operation of aircraft, this Annex supports the continued evolution of a proactive strategy to improve safety performance. The foundation of this proactive safety strategy is based on the implementation of a State safety programme (SSP) that systematically addresses safety risks.

Effective SSP implementation is a gradual process, requiring time to mature fully. Factors that affect the time required to establish an SSP include the complexity of the air transportation system as well as the maturity of the aviation safety oversight capabilities of the State.

This Annex consolidates material from existing Annexes regarding SSP and safety management systems (SMSs), as well as related elements including the collection and use of safety data and State safety oversight activities. The benefit of drawing together this material into a single Annex is to focus States' attention on the importance of integrating their safety management activities. It also facilitates the evolution of safety management provisions.

Certain State safety management functions required in Annex 19 may be delegated to a regional safety oversight organization or a regional accident and incident investigation organization on behalf of the State.

This Annex that contains SARPs related to responsibilities and processes underlying the safety management by States was first adopted by the Council on 25 February 2013 pursuant to the provisions of Article 37 of the Convention on International Civil Aviation (Chicago, 1944) and designated as Annex 19 to the Convention. The SARPs were based on provisions for safety management initially adopted by the Council in Annexes 1; 6, Parts I, II and III; 8; 11; 13 and 14, Volume I, and on recommendations of the first special meeting of the SMP (Montréal, 13 to 17 February 2012).

In its report to Council on the HLSC/2010 outcomes, the Air Navigation Commission had recommended that the development of the new Annex follow a two-phased process. The focus of the first phase was to establish the safety management Annex through the consolidation and reorganization of existing SARPs. Amendment 1 to Annex 19 includes substantive amendments to the safety management provisions as described below.

In recognition of the need to clarify the relationship between the eight critical elements (CEs) of a State safety oversight (SSO) system found in Appendix 1 and the detailed SSP framework elements previously found in Attachment A, Amendment 1 to Annex 19 consolidates, in Chapter 3, the provisions related to States' safety management responsibility. The CEs of an SSO system constitute the foundation of an SSP. Chapter 3 integrates the eight CEs of the SSO system with the SSP framework elements into a streamlined set of SARPs to facilitate implementation. The CEs remain visible in Appendix 1.

Furthermore, Amendment 1 provides new and amended SMS SARPs to facilitate implementation, including the addition of several explanatory notes. Amendment 1 also extends the applicability of an SMS to organizations responsible for the type design and manufacture of engines and propellers, which is facilitated by the recognition of these organizations in Annex 8.

Finally, Amendment 1 provides enhanced protections to safety data and safety information as well as their sources. One of the key elements of the amendment is that guidance material contained in the former Attachment B to Annex 19 has been upgraded to the status of SARPs, grouped within a new Appendix. The amendment enhances legal safeguards intended to assure the appropriate use and protection of safety information, thereby facilitating its continued availability to support proactive safety improvement strategies. Definitions for safety data and safety information have also been developed to provide clarity to the scope of the provisions, thereby facilitating consistent application.

As a result of the adoption of Amendment 1, the second edition of Annex 19 was published. This edition reflects the extensive nature of the amendment which completes the second phase of the development of the Annex. Amendment 1 was adopted by the Council on 2 March 2016, became effective on 11 July 2016 and applicable on 7 November 2019.

Amendment 2 is an evolution of the safety management SARPs, stemming from the outcomes of various meetings and information collected through ICAO implementation support initiatives, as well as the collective experience of SMP members in implementing SSP and SMS in their own organizations. The enhancements are intended to support States and service providers in the effective implementation of SSP and SMS, respectively, including the addition of links between SSP and SMS as well as their components through references and Notes.

To enable the safe integration of operators holding a remotely piloted aircraft system (RPAS) operator certificate authorized to conduct international operations, Amendment 2 extends SMS applicability to these operators as well as approved maintenance organizations providing services. SMS applicability is also extended to certified heliports. Recognizing interest from some States and international organizations to extend SMS to aviation sectors outside the scope of Annex 19, Amendment 2 also includes a new provision related to SMS discretionary applicability, which provides States with the flexibility to require SMS, if deemed appropriate to support the management of safety risks, for any sector in the aviation system.

Further to a Recommendation from AN-Conf/13, challenges related to establishing an acceptable level of safety performance (ALoSP), the provision related to ALoSP has been replaced by more foundational safety performance management SARPs. The structure of the safety performance management provisions in the SMS framework have also been aligned for consistency.

Provisions to support States in the development of safety intelligence are further enhanced to support a more proactive and integrated approach to safety management. The provisions clarify the safety data collection and processing system (SDCPS) SARPs and strengthen the provisions related to the sharing and exchange of safety information and safety intelligence within the aviation community.

Amendment 2 to Annex 19 reflects the extensive nature of the amendment and the evolution of the Annex. It was adopted by the Council on 23 June 2025, becoming effective on 4 November 2025 and applicable on 26 November 2026.

Table A shows the origin of subsequent amendments together with a list of the principal subjects involved and the dates on which the Annex and the amendments were adopted by the Council, when they became effective and when they became applicable.

Action by Contracting States

Notification of differences. The attention of Contracting States is drawn to the obligation imposed by Article 38 of the Convention by which Contracting States are required to notify the Organization of any differences between their national regulations and practices and the International Standards contained in this Annex and any amendments thereto. Contracting States are invited to extend such notification to any differences from the Recommended Practices contained in this Annex, and any amendments thereto when the notification of such differences is important for the safety of air navigation. Further, Contracting States are invited to keep the Organization currently informed of any differences which may subsequently occur or of the withdrawal of any differences previously notified. A specific request for notification of differences will be sent to Contracting States immediately after the adoption of each Amendment to this Annex.

Attention of States is also drawn to the provision of Annex 15 – *Aeronautical Information Services* related to the publication of differences between their national regulations and practices and the related ICAO Standards and Recommended Practices through the Aeronautical Information Service, in addition to the obligation of States under Article 38 of the Convention.

Promulgation of information. The establishment and withdrawal of and changes to facilities, services and procedures affecting aircraft operations provided in accordance with the Standards and Recommended Practices specified in this Annex should be notified and take effect in accordance with the provisions of Annex 15.

Status of Annex components

An Annex is made up of the following component parts, not all of which, however, are necessarily found in every Annex; they have the status indicated.

1.— *Material comprising the Annex proper*

a) *Standards* and *Recommended Practices* adopted by the Council under the provisions of the Convention. They are defined as follows:

Standard: Any specification for physical characteristics, configuration, material, performance, personnel or procedure, the uniform application of which is recognized as necessary for the safety or regularity of international air navigation and to which Contracting States will conform in accordance with the Convention; in the event of impossibility of compliance, notification to the Council is compulsory under Article 38.

Recommended Practice: Any specification for physical characteristics, configuration, matériel, performance, personnel or procedure, the uniform application of which is recognized as desirable in the interest of safety, regularity or efficiency of international air navigation, and to which Contracting States will endeavour to conform in accordance with the Convention.

b) *Appendices* comprising material grouped separately for convenience but forming part of the Standards and Recommended Practices adopted by the Council.

c) *Definitions* of terms used in the Standards and Recommended Practices which are not self-explanatory in that they do not have accepted dictionary meanings. A definition does not have an independent status but is an essential part of each Standard and Recommended Practice in which the term is used, since a change in the meaning of the term would affect the specification.

d) *Tables* and *Figures* which add to or illustrate a Standard or Recommended Practice and which are referred to therein, form part of the associated Standard or Recommended Practice and have the same status.

It is to be noted that some Standards in this Annex incorporate, by reference, other specifications having the status of Recommended Practices. In such cases, the text of the Recommended Practice becomes part of the Standard.

2.— *Material approved by the Council for publication in association with the Standards and Recommended Practices*

a) *Forewords* comprising historical and explanatory material based on the action of the Council and including an explanation of the obligations of States with regard to the application of the Standards and Recommended Practices ensuing from the Convention and the Resolution of Adoption;

b) *Introductions* comprising explanatory material introduced at the beginning of parts, chapters or sections of the Annex to assist in the understanding of the application of the text;

c) *Notes* included in the text, where appropriate, to give factual information or references bearing on the Standards or Recommended Practices in question but not constituting part of the Standards or Recommended Practices;

d) *Attachments* comprising material supplementary to the Standards and Recommended Practices or included as a guide to their application.

Selection of language

This Annex has been adopted in six languages – English, Arabic, Chinese, French, Russian and Spanish. Each Contracting State is requested to select one of those texts for the purpose of national implementation and for other effects provided for in the Convention, either through direct use or through translation into its own national language, and to notify the Organization accordingly.

Editorial practices

The following practice has been adhered to in order to indicate at a glance the status of each statement: *Standards* have been printed in light face roman; *Recommended Practices* have been printed in light face italics, the status being indicated by the prefix **Recommendation**; *Notes* have been printed in light face italics, the status being indicated by the prefix *Note*.

The following editorial practice has been followed in the writing of specifications: for Standards the operative verb "shall" is used, and for Recommended Practices the operative verb "should" is used.

Any reference to a portion of this document, which is identified by a number and/or title, includes all subdivisions of that portion.

Table A. Amendments to Annex 19

Amendment	*Source(s)*	*Subject(s)*	*Adopted* *Effective* *Applicable*
1st Edition	Secretariat; first special meeting of the Safety Management Panel (SMP/SM/1)		25 February 2013 15 July 2013 14 November 2013
1 (2nd Edition)	First meeting of the Safety Management Panel (SMP/1) together with the 14th meeting of Airworthiness Panel Working Group of the Whole (AIRP/WG/WHL/14) and the Safety Information Protection Task Force (SIP TF) relating to safety management	Further development of safety management provisions and extension of safety management system (SMS) provisions to organizations responsible for the type design and/or manufacture of engines and propellers.	2 March 2016 11 July 2016 7 November 2019

Amendment	*Source(s)*	*Subject(s)*	*Adopted* *Effective* *Applicable*
2 (3rd Edition)	The fifth and seventh meetings of the Safety Management Panel (SMP/5 and SMP/7), the ninth meeting of the Remotely Piloted Aircraft Systems Panel (RPASP/9) and the fifth meeting of the Aerodrome Design and Operations Panel Working Group (ADOP/WG/5)	Enhancement of State safety programme (SSP) and safety management system (SMS) provisions, as well as the extension of SMS provisions to: a) operators holding a remotely piloted aircraft system (RPAS) operator certificate and authorized to conduct international operations; b) approved maintenance organizations providing services to a); and c) operators of certified heliports. In addition, the provisions related to the development of safety intelligence are further developed to support aviation decision-making.	23 June 2025 4 November 2025 26 November 2026

CHAPTER 1. DEFINITIONS

When the following terms are used in the Standards and Recommended Practices for Safety Management, they have the following meanings:

Accident. An occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down, in which:

a) a person is fatally or seriously injured as a result of:

— being in the aircraft, or

— direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or

— direct exposure to jet blast,

except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or

b) the aircraft sustains damage or structural failure which:

— adversely affects the structural strength, performance or flight characteristics of the aircraft, and

— would normally require major repair or replacement of the affected component,

except for engine failure or damage, when the damage is limited to a single engine, (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes), or for minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike (including holes in the radome); or

c) the aircraft is missing or is completely inaccessible.

Note 1.— For statistical uniformity only, an injury resulting in death within thirty days of the date of the accident is classified, by ICAO, as a fatal injury.

Note 2.— An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.

Note 3.— The type of unmanned aircraft system to be investigated is addressed in 5.1 of Annex 13.

Note 4.— Guidance for the determination of aircraft damage can be found in Attachment E of Annex 13.

Aeroplane. A power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight.

Aircraft. Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.

Hazard. A condition or an object with the potential to cause or contribute to an aircraft incident or accident.

Helicopter. A heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes.

Note.— Some States use the term "rotorcraft" as an alternative to "helicopter".

Human performance. Human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.

Incident. An occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation.

Note.— The types of incidents which are of interest for safety-related studies include the incidents listed in Annex 13, Attachment C.

Operational personnel. Personnel involved in aviation activities who are in a position to report safety information.

Note.— Such personnel include, but are not limited to: flight crews; air traffic controllers; aeronautical station operators; maintenance technicians; personnel of aircraft design and manufacturing organizations; cabin crews; flight dispatchers, apron personnel and ground handling personnel.

Organization responsible for the type design. The organization that holds the type certificate, or equivalent document, for an aircraft, remote pilot station, engine or propeller type, issued by a Contracting State.

Safety. The state in which risks associated with aviation activities, related to, or in direct support of the operation of aircraft, are reduced and controlled to an acceptable level.

Safety data. A defined set of facts or values collected for reference, processing or analysis which could be used to maintain or improve safety.

Safety information. Safety data processed, organized or analysed in a given context to support safety management and the development of safety intelligence.

Safety management system (SMS). A systematic approach to managing safety, including the necessary organizational structures, accountability, responsibilities, policies and procedures.

Safety objective. A statement of a desired safety outcome.

Safety oversight. A function performed by a State to ensure that individuals and organizations performing an aviation activity comply with safety-related national laws and regulations.

Safety performance. A State or a service provider's measurable effect on safety achievement.

Safety performance indicator. A metric used to measure and monitor a State or a service provider's safety performance, including the progress towards achieving a safety objective.

Safety performance target. The State or service provider's planned or intended target for a safety performance indicator over a given period.

Safety risk. The predicted probability and severity of the consequences or outcomes of a hazard.

Serious injury. An injury which is sustained by a person in an accident and which:

a) requires hospitalization for more than 48 hours, commencing within seven days from the date the injury was received; or

b) results in a fracture of any bone (except simple fractures of fingers, toes or nose); or

c) involves lacerations which cause severe haemorrhage, nerve, muscle or tendon damage; or

d) involves injury to any internal organ; or

e) involves second or third degree burns, or any burns affecting more than 5 per cent of the body surface; or

f) involves verified exposure to infectious substances or injurious radiation.

State of Design. The State having jurisdiction over the organization responsible for the type design.

State of Manufacture[†] The State having jurisdiction over the organization responsible for the final assembly of the aircraft, engine or propeller.

State of Manufacture.[††] The State having jurisdiction over the organization responsible for the final assembly of the aircraft, remote pilot station, engine or propeller.

State of Registry. The State on whose register the aircraft is entered.

Note.— In the case of the registration of aircraft of an international operating agency on other than a national basis, the States constituting the agency are jointly and severally bound to assume the obligations which, under the Chicago Convention, attach to a State of Registry. See, in this regard, the Council Resolution of 14 December 1967 on Nationality and Registration of Aircraft Operated by International Operating Agencies which can be found in the Policy and Guidance Material on the Economic Regulation of International Air Transport *(Doc 9587).*

State of the Operator. The State in which the operator's principal place of business is located or, if there is no such place of business, the operator's permanent residence.

State safety programme (SSP). An integrated set of laws, regulations, policies, objectives, processes, procedures and activities aimed at managing safety, at the State level.

Surveillance. The State activities through which the State proactively verifies through inspections and audits that aviation licence, certificate, authorization or approval holders continue to meet the established requirements and function at the level of competency and safety required by the State.

———————————

[†] Applicable until 25 November 2026.
[††] Applicable as of 26 November 2026.

CHAPTER 2. APPLICABILITY

The Standards and Recommended Practices contained in this Annex shall be applicable to safety management functions related to, or in direct support of, the safe operation of aircraft.

Note 1.— Safety management provisions for States are contained in Chapter 3 and relate to a State safety programme.

Note 2.— Safety management provisions for specified service providers addressed under 3.3.2 are in Chapter 4 and relate to safety management systems (SMSs).

Note 3.— No provision of this Annex is intended to transfer to the State the responsibilities of the service provider addressed under 3.3.2. This includes functions related to, or in direct support of, the safe operation of aircraft.

Note 4.— In the context of this Annex, "responsibility" (singular) refers to "State responsibility" with respect to international obligations under the Convention on International Civil Aviation, while "responsibilities" (plural) should be given its ordinary meaning (i.e., when referring to functions and activities that may be delegated).

CHAPTER 3. STATE SAFETY PROGRAMME (SSP)

Note 1.— The State safety oversight (SSO) system critical elements (CEs) found in Appendix 1 constitute the foundation of an SSP.

Note 2.— Safety management provisions pertaining to specific types of aviation activities are addressed in the relevant Annexes.

Note 3.— Basic safety management principles applicable to the medical assessment process of licence holders are contained in Annex 1. Guidance is available in the Manual of Civil Aviation Medicine *(Doc 8984).*

Note 4.— The objective of this chapter is to ensure that States implement an SSP that supports the continued evolution of a proactive strategy to manage safety risks and safety performance.

3.1 General

3.1.1 States shall establish and manage an SSP in accordance with the four components detailed in 3.2, 3.3, 3.4 and 3.5, supported by a system description.

Note 1.— How an SSP is established and managed differs from one State to another due to a number of aspects including, but not limited to, the complexity of the State's civil aviation system as captured in the system description, the State's legal system and the State's civil aviation priorities.

Note 2.— Guidance on the development of a system description and the identification of interfaces is contained in the Safety Management Manual *(Doc 9859).*

Note 3.— A national aviation safety plan (NASP), consistent with the Global Aviation Safety Plan *(GASP, Doc 10004) and with the respective regional aviation safety plan, complements the SSP processes and activities listed in this chapter. Guidance on NASPs is contained in the* Manual on the Development of Regional and National Aviation Safety Plans *(Doc 10131).*

3.1.2 **Recommendation.**— *In the establishment and management of an SSP, specific consideration should be given to human performance implications.*

Note.— Guidance on human performance implications for SSP is contained in the Manual on Human Performance (HP) for Regulators *(Doc 10151).*

3.2 State safety policy, objectives and resources (SSP Component 1)

3.2.1 Primary aviation legislation

3.2.1.1 States shall establish primary aviation legislation in accordance with section 1 of Appendix 1.

3.2.2 Specific operating regulations

3.2.2.1 States shall establish specific operating regulations in accordance with section 2 of Appendix 1.

3.2.2.2 States shall periodically review specific operating regulations, guidance material and implementation policies to ensure they remain relevant and appropriate.

3.2.3 State system and functions

3.2.3.1 States shall establish State system and functions in accordance with section 3 of Appendix 1.

3.2.3.2 States shall establish their SSP functions and activities but may delegate them to another State, Regional Safety Oversight Organization (RSOO) or Regional Accident and Incident Investigation Organization (RAIO), where appropriate.

Note.— States retain responsibility for SSP functions and activities delegated to another State, RSOO or RAIO. Guidance on the delegation of SSP functions and activities is contained in the Safety Management Manual *(Doc 9859). Additional guidance on the establishment of RSOOs and RAIOs is contained in the* Safety Oversight Manual *(Doc 9734)*, *Part B* – The Establishment and Management of a Regional Safety Oversight Organization*, and the* Manual on Regional Accident and Incident Investigation Organization *(Doc 9946), respectively.*

3.2.3.3 States shall establish a safety policy and safety objectives that reflect their commitment regarding safety and facilitate the promotion of a positive safety culture in the aviation community.

3.2.3.4 The SSP functions, safety policy and safety objectives shall be documented and periodically reviewed to ensure that they remain relevant and appropriate to the State.

3.2.3.5 States shall ensure that the role of Civil Aviation Authorities is appropriately reflected in Emergency Response Planning and Crisis Management at the State level.

3.2.4 Qualified technical personnel

States shall establish requirements for the qualification of technical personnel in accordance with section 4 of Appendix 1.

Note.— The term "technical personnel" refers to those persons performing safety-related functions for or on behalf of the State.

3.2.5 Technical guidance, tools and provision of safety-critical information

States shall establish technical guidance and tools and provide safety-critical information in accordance with section 5 of Appendix 1.

3.3 State safety risk management (SSP Component 2)

3.3.1 Licensing, certification, authorization and approval obligations

States shall meet the licensing, certification, authorization and approval obligations in accordance with section 6 of Appendix 1.

3.3.2 Safety management system obligations

Note.— The Standards in this section are not intended to promote duplication in the oversight of service providers holding approvals from more than one State.

3.3.2.1 States shall require that the following service providers under their authority implement an SMS:

a) approved training organizations in accordance with Annex 1 that are exposed to safety risks related to aircraft operations during the provision of their services;

b) operators of aeroplanes or helicopters authorized to conduct international commercial air transport, in accordance with Annex 6, Part I or Part III, respectively;

Note.— When maintenance activities are not conducted by an approved maintenance organization in accordance with Annex 8, Part II, Chapter 6 but under Annex 6, Part I, 8.1.2 b), or Annex 6, Part III, Section II, 6.1.2 b), they are included in the scope of the operator's SMS.

c) operators holding a remotely piloted aircraft system (RPAS) operator certificate and authorized to conduct international operations in accordance with Annex 6, Part IV;

Note.— When maintenance activities are not conducted by an approved maintenance organization in accordance with Annex 6, Part IV, they are included in the scope of the operator's SMS.

d) approved maintenance organizations providing services to operators of aeroplanes or helicopters engaged in international commercial air transport, in accordance with Annex 6, Part I or Part III, respectively;

e) approved maintenance organizations providing services to operators authorized to conduct international RPAS operations in accordance with Annex 6, Part IV;

f) organizations responsible for the type design or manufacture of aircraft, engines or propellers in accordance with Annex 8;

g) air traffic services (ATS) providers in accordance with Annex 11; and

h) operators of certified aerodromes or certified heliports in accordance with Annex 14, Volume I and Volume II, respectively.

Note.— Further provisions related to the implementation of an SMS by service providers can be found in Chapter 4.

3.3.2.2 The State of Registry shall establish criteria for international general aviation operators of large or turbojet aeroplanes in accordance with Annex 6, Part II, Section 3, to implement an SMS.

Note.— Guidance on the establishment of criteria for service providers to implement an SMS is contained in the Safety Management Manual *(Doc 9859).*

3.3.2.3 The criteria established by the State of Registry in accordance with 3.3.2.2 shall address the SMS framework and elements contained in Appendix 2.

Note.— Guidance on establishing the criteria to implement an SMS for international general aviation operators is contained in the Safety Management Manual *(Doc 9859).*

3.3.3 Accident and incident investigation

States shall establish a process to investigate accidents and incidents in accordance with Annex 13, in support of the management of safety in the State.

3.3.4 Hazard identification and safety risk assessment

3.3.4.1 States shall establish and maintain a process to identify hazards at the State level from collected safety data and safety information.

Note.— Additional information to identify hazards and safety issues on which to base preventive actions may be contained in the Final Reports of accidents and incidents.

3.3.4.2 States shall develop and maintain a process that ensures the assessment of safety risks associated with hazards identified at the State level.

Note.— Additional provisions related to safety intelligence that support the identification of hazards at the State level and the assessment of associated safety risks can be found in 5.2 and 5.3.

3.3.4.3 **Recommendation**.— *States should periodically review hazards and associated safety risks related to emerging issues across their civil aviation system.*

3.3.5 Management of safety risks

3.3.5.1 States shall establish mechanisms for the resolution of safety issues in accordance with section 8 in Appendix 1.

3.3.5.2 States shall develop, maintain and document the processes to manage safety risks arising from hazards identified at the State level.

Note 1.— Safety risk assessment results may be used to support the prioritization of actions to manage safety risks. Guidance on the process for managing safety risks is contained in the Safety Management Manual *(Doc 9859).*

Note 2.— In order to reduce the overall risk in the aviation system when managing safety risks, it is beneficial to consider the impact on aviation safety from risk management strategies implemented in other domains (for example, aviation security, facilitation, economics and environment) and vice versa.

3.3.5.3 **Recommendation.**— *States should periodically review the need to extend the SMS applicability to additional aviation sectors beyond those covered under 3.3.2, in accordance with the SMS framework contained in Appendix 2, as a safety risk control.*

3.4 State safety assurance (SSP Component 3)

3.4.1 Surveillance obligations

Note.— The Standards in this section are not intended to promote duplication in the oversight of service providers holding approvals from more than one State.

3.4.1.1 States shall meet the surveillance obligations in accordance with section 7 of Appendix 1.

3.4.1.2 States shall establish procedures to prioritize surveillance activities towards those areas of greater safety concern or need.

Note.— Organizational risk profiles, including outcomes of hazard identification and safety risk assessment processes conducted under 3.3.4, surveillance activities, SMS assessments and safety performance monitoring, may provide information for the planning, prioritization and preparation of surveillance activities.

3.4.1.3 States shall implement mechanisms to:

a) periodically assess the SMS of service providers addressed under 3.3.2.1; and

b) monitor the safety performance of service providers addressed under 3.3.2.

Note.— Guidance on the periodic assessment of the SMS of service providers is contained in the Safety Management Manual *(Doc 9859)*.

3.4.1.4 States shall establish a surveillance policy that specifies the conditions and circumstances under which service providers with an SMS are allowed to deal with, and resolve, events involving certain safety issues, internally, within the context of their SMS and to the satisfaction of the appropriate State authority.

3.4.2 State safety performance measurement and monitoring

3.4.2.1 States shall establish safety performance indicators, supported by qualitative means as needed, and safety performance targets where appropriate, to measure and monitor the safety performance of the State's civil aviation system and the progress towards achieving its safety objectives.

Note 1.— Guidance on establishing safety performance indicators, qualitative means and the appropriate use of safety performance targets to measure and monitor the State's safety performance is contained in the Safety Management Manual *(Doc 9859).*

Note 2.— Additional provisions related to safety intelligence that support the establishment of safety performance indicators for State safety performance measurement and monitoring can be found in 5.3.1.

3.4.2.2 **Recommendation**.— *States should ensure that the means of safety performance measurement established by service providers addressed in 3.3.2.1 consider the safety performance measurement and monitoring at the State level, where appropriate.*

Note.— Collaboration between the State and service providers, and RSOOs where applicable, facilitates the development of effective safety performance measurement and monitoring across the State's civil aviation system.

3.4.3 Management of change

3.4.3.1 **Recommendation**.— *States should develop and maintain a process to proactively manage changes at the State level, to ensure that the safety risks incurred by the changes are properly controlled while the desired outcomes are achieved.*

Note.— Guidance on the management of change is contained in the Safety Management Manual *(Doc 9859)*.

3.4.4 Continual improvement of the SSP

3.4.4.1 States shall develop and maintain a process to evaluate the effectiveness of actions taken to manage safety risks and resolve safety issues.

3.4.4.2 **Recommendation.—** *States should periodically assess the effectiveness of their SSP processes and activities to support the continual improvement of their SSP.*

3.5 State safety promotion (SSP Component 4)

3.5.1 States shall communicate the SSP functions, safety policy and safety objectives across their aviation community and with other stakeholders impacting aviation safety.

3.5.2 States shall implement means to promote safety in support of the achievement of their safety objectives and the development of a positive safety culture across their aviation community and with other stakeholders impacting aviation safety.

Note.— Means for promoting safety may include, but are not limited to: a safety communication plan, stakeholder engagement maps, social media campaigns, annual safety reports, collaborative forums with industry, and targeted initiatives.

CHAPTER 4. SAFETY MANAGEMENT SYSTEM (SMS)

Note 1.— Compliance with safety regulations to obtain a licence, certificate, authorization or approval provides the foundation for the implementation of an SMS. Guidance on implementation of an SMS is contained in the Safety Management Manual *(Doc 9859).*

Note 2.— Service providers with multiple approvals requiring an SMS may choose to include them all under the scope of a single SMS.

Note 3.— Service providers may choose to integrate their SMS with other management systems. Important considerations related to this approach for States and service providers are contained in the Safety Management Manual *(Doc 9859).*

4.1 General

4.1.1 The SMS of each service provider addressed under 3.3.2.1 of this Annex shall:

a) be established and managed in accordance with the framework elements contained in Appendix 2;

b) cover a defined scope of products and services; and

c) be supported by a system description, including the identification of relevant organizational interfaces.

Note 1.— The way in which an SMS is established and managed differs from one service provider to another and depends on many variables, including, but not limited to, size and complexity. Guidance on tailoring an SMS is contained in the Safety Management Manual *(Doc 9859).*

Note 2.— Guidance on the development of a system description and the management of interfaces is contained in the Safety Management Manual *(Doc 9859).*

4.1.2 The State shall ensure that each service provider addressed under 3.3.2.1 of this Annex develops a plan to facilitate SMS implementation.

4.1.3 **Recommendation.**— *In the establishment and management of an SMS, specific consideration should be given to human performance implications.*

4.2 SMS acceptability

4.2.1 The SMS of an approved training organization, in accordance with Annex 1, that is exposed to safety risks related to aircraft operations during the provision of its services shall be made acceptable to the State(s) responsible for the organization's approval.

4.2.2 The SMS of a certified operator of aeroplanes or helicopters authorized to conduct international commercial air transport, in accordance with Annex 6, Part I or Part III, respectively, shall be made acceptable to the State of the Operator.

Note.— When maintenance activities are not conducted by an approved maintenance organization in accordance with Annex 8, Part II, Chapter 6, but under Annex 6, Part I, 8.1.2 b), or Annex 6, Part III, Section II, 6.1.2 b), they are included in the scope of the operator's SMS.

4.2.3 The SMS of a certified remotely piloted aircraft system (RPAS) operator authorized to conduct international operations, in accordance with Annex 6, Part IV, shall be made acceptable to the State of the Operator.

Note.— When maintenance activities are not conducted by an approved maintenance organization in accordance with Annex 6, Part IV, they are included in the scope of the operator's SMS.

4.2.4 The SMS of an approved maintenance organization providing services to operators of aeroplanes or helicopters engaged in international commercial air transport, in accordance with Annex 6, Part I or Part III, respectively, shall be made acceptable to the State(s) responsible for the organization's approval.

4.2.5 The SMS of an approved maintenance organization providing services to operators authorized to conduct international RPAS operations in accordance with Annex 6, Part IV, shall be made acceptable to the State(s) responsible for the organization's approval.

4.2.6 The SMS of an organization responsible for the type design of aircraft, engines or propellers, in accordance with Annex 8, shall be made acceptable to the State of Design.

4.2.7 The SMS of an organization responsible for the manufacture of aircraft, engines or propellers, in accordance with Annex 8, shall be made acceptable to the State of Manufacture.

4.2.8 The SMS of an ATS provider, in accordance with Annex 11, shall be made acceptable to the State responsible for the provider's designation.

4.2.9 The SMS of an operator of a certified aerodrome or a certified heliport, in accordance with Annex 14, Volumes I and II, respectively, shall be made acceptable to the State responsible for the aerodrome's or heliport's certification.

4.3 Other SMS regulatory approaches

The SMS of an international general aviation operator, conducting operations of large or turbojet aeroplanes in accordance with Annex 6, Part II, Section 3, shall be established and managed to meet the criteria established by the State of Registry.

Note.— Guidance concerning the responsibilities of the State of Registry in connection with lease, charter and interchange operations is contained in the Manual of Procedures for Operations Inspection, Certification and Continued Surveillance *(Doc 8335). Guidance concerning the transfer of State of Registry responsibilities to the State where the aircraft operator has its principal place of business or, if it has no such place of business, its permanent address in accordance with Article 83* bis *is contained in the* Manual on the Implementation of Article 83 *bis* of the Convention on International Civil Aviation *(Doc 10059).*

CHAPTER 5. DEVELOPMENT OF SAFETY INTELLIGENCE

Note.— The objective of this chapter is to support States in the development of safety intelligence to maintain or continually improve the effectiveness of their State safety programme (SSP).

5.1 General

5.1.1 **Recommendation.** *States should establish a strategy for the development of safety intelligence that supports the management of safety and decision-making.*

Note.— Guidance related to the strategy for developing safety intelligence is contained in the Safety Intelligence Manual *(Doc 10159).*

5.2 Safety data collection and processing system

5.2.1 States shall establish a safety data collection and processing system (SDCPS) consisting of a series of integrated processes and schemes to capture, store, aggregate, process and enable the analysis of safety data and safety information.

Note 1.— The SDCPS may also include some analysis functions.

Note 2.— Guidance related to an SDCPS is contained in the Safety Intelligence Manual *(Doc 10159).*

5.2.2 States shall ensure that the SDCPS is based on both proactive and reactive methods of safety data and safety information collection.

Note.— An SDCPS may include inputs from State, industry and public sources. Additional guidance on methods of safety data and safety information collection is contained in the Safety Intelligence Manual *(Doc 10159).*

5.2.3 States shall ensure that the safety data and safety information collected through mandatory safety reporting systems are incorporated into the SDCPS.

Note.— The SDCPS includes mandatory safety reporting systems established by the State in accordance with sector-specific provisions contained in other Annexes, Procedures for Air Navigation Services (PANS) and supporting guidance material. In addition, Annex 13 contains information on accident/incident data reporting (ADREP). Examples of mandatory safety reporting systems are contained in the Safety Intelligence Manual *(Doc 10159).*

5.2.4 States shall establish a voluntary safety reporting system to collect safety data and safety information not captured by mandatory safety reporting systems.

5.2.5 State authorities responsible for the implementation of the SSP shall contribute and have access to safety data and safety information in the SDCPS to support their safety responsibilities.

Note 1.— State authorities responsible for the implementation of the SSP include accident investigation authorities.

Note 2.— Provisions related to the protection of safety data captured by, and safety information derived from, voluntary safety reporting systems can be found in 5.4.1. Provisions related to the protection of safety data captured by, and safety information derived from, mandatory safety reporting systems can be found in Recommendation 5.4.2.

5.2.6 States shall use a taxonomy for safety reporting that is aligned with standardized taxonomies and that facilitates the:

a) identification of hazards at the State level as referenced in 3.3.4;

b) consistent comparison of safety data and safety information; and

c) sharing and exchange of safety information as referenced in 5.5.

Note.— Guidance related to standardized taxonomies including, but not limited to ADREP taxonomy, is contained in the Safety Intelligence Manual (*Doc 10159*).

5.2.7 **Recommendation**.— *States should establish a means for the governance of safety data and safety information.*

Note.— Further guidance on safety data governance is contained in the Safety Intelligence Manual *(Doc 10159).*

5.3 Safety data and safety information analysis

5.3.1 States shall establish and maintain processes to analyse safety data and safety information from the SDCPS. The processes shall include a variety of analysis methods to support the:

a) development of safety performance indicators, as referenced in 3.4.2.1;

b) identification of hazards at the State level, as referenced in 3.3.4;

c) identification of existing practices and operational strategies that resulted in positive safety outcomes; and

d) development of safety intelligence.

Note 1.— Data and information from non-safety sources (for example, weather, terrain or security) may be included in the processes to support a more integrated analysis at the State level.

Note 2.— Guidance on different types of analyses that can be conducted and the competencies required to conduct such analyses are contained in the Safety Intelligence Manual *(Doc 10159).*

5.4 Safety data and safety information protection

5.4.1 States shall accord protection to safety data captured by, and safety information derived from, voluntary safety reporting systems and related sources in accordance with Appendix 3.

Note.— For the purposes of 5.4 and Appendix 3, sources include individuals and organizations.

5.4.2 **Recommendation**.— *States should extend the protection referred to in 5.4.1 to safety data captured by, and safety information derived from, mandatory safety reporting systems and related sources.*

Note 1.— A reporting environment where employees and operational personnel may trust that their actions or omissions that are commensurate with their training and experience will not be punished is fundamental to safety reporting.

Note 2.— Guidance related to both mandatory and voluntary safety reporting systems is contained in the Safety Intelligence Manual *(Doc 10159).*

5.4.3 Subject to 5.4.1 and 5.4.2, States shall not make available or use safety data or safety information collected, stored or analysed in accordance with 5.2 or 5.3 for purposes other than maintaining or improving safety, unless the competent authority determines, in accordance with Appendix 3, that a principle of exception applies.

5.4.4 Notwithstanding 5.4.3, States shall not be prevented from using safety data or safety information to take any preventive, corrective or remedial action that is necessary to maintain or improve aviation safety.

Note.— Specific provision aimed at ensuring that there is no overlap with the protection of investigation records in Annex 13 is contained in Appendix 3, 1.2.

5.4.5 States shall take necessary measures, including the promotion of a positive safety culture, to encourage safety reporting through the systems referred to in 5.2.3 and 5.2.4.

Note.— Guidance related to positive safety culture is contained in the Safety Management Manual *(Doc 9859).*

5.4.6 **Recommendation**.— *States should facilitate and promote safety reporting by adjusting their applicable laws, regulations and policies, as necessary.*

5.4.7 **Recommendation**.— *In support of the determination referred to in 5.4.3, States should institute and make use of appropriate advance arrangements between their authorities and State bodies entrusted with aviation safety and those entrusted with the administration of justice. Such arrangements should take into account the principles specified in Appendix 3.*

Note.— These arrangements may be formalized through legislation, protocols, agreements or memoranda of understanding.

5.5 Safety information sharing and exchange

Note.— Sharing refers to giving, while exchange refers to giving and receiving in return. Guidance related to the sharing and exchange of safety information is contained in the Safety Intelligence Manual *(Doc 10159).*

5.5.1 If a State, in the analysis of the information contained in its SDCPS, identifies safety matters considered to be of interest to other States, that State shall forward such safety information to them as soon as possible. Prior to sharing such information, States shall agree on the level of protection and conditions on which safety information will be shared. The level of protection and conditions shall be in line with Appendix 3.

5.5.2 States shall facilitate the establishment of means for timely safety information sharing or exchange to promote collaboration within the aviation community, provided that the proper measures are taken to ensure that safety information is only used for maintaining and improving safety.

Note 1.— Means for timely safety information sharing or exchange may include agreements, partnerships, collaborative safety teams, forums and digital/physical platforms.

Note 2.— Information on the sharing of safety information can be found in the ICAO Code of Conduct on the Sharing and Use of Safety Information in the Safety Intelligence Manual *(Doc 10159).*

5.5.3 **Recommendation**.— *States should promote the sharing and exchange of relevant safety information and safety intelligence among service providers, provided that the proper measures are taken to ensure that safety information and safety intelligence are only used for maintaining and improving safety*.

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APPENDIX 1. STATE SAFETY OVERSIGHT (SSO) SYSTEM CRITICAL ELEMENTS (CEs)

(*See Chapter 3*)

Note 1.— Guidance on the critical elements (CEs) of a system that enables a State to discharge its responsibility for safety oversight is contained in the Safety Oversight Manual, *Part A* – The Establishment and Management of a State Safety Oversight System *(Doc 9734).*

Note 2.— The term "relevant authorities or agencies" is used in a generic sense to include all authorities with aviation safety management and oversight responsibility which may be established by States as separate entities, such as: Civil Aviation Authorities, Airport Authorities, ATS Authorities, Accident Investigation Authority, and Meteorological Authority.

Note 3.— The SSO system CEs are applied, as appropriate, to authorities performing safety oversight functions as well as authorities performing investigation of accidents and incidents or other State safety management activities.

Note 4.— See Appendix 5 to Annex 6, Part I, and Appendix 1 to Annex 6, Part III, for provisions specific to the safety oversight of air operators.

1. Primary aviation legislation (CE-1)

1.1 States shall promulgate a comprehensive and effective aviation law, consistent with the requirements contained in the Convention on International Civil Aviation, to enable the oversight and management of civil aviation safety and the enforcement of regulations through the relevant authorities or agencies established for that purpose.

Note.— This includes ensuring that the aviation law remains relevant and appropriate to the State.

1.2 The aviation law shall provide personnel performing safety oversight functions access to the aircraft, operations, facilities, personnel and associated records, as applicable, of individuals and organizations performing an aviation activity.

2. Specific operating regulations (CE-2)

States shall promulgate regulations to address, at a minimum, national requirements emanating from the primary aviation legislation, for standardized operational procedures, products, services, equipment and infrastructures in conformity with the Annexes to the Convention on International Civil Aviation.

Note.— The term "regulations" is used in a generic sense and includes but is not limited to instructions, rules, edicts, directives, sets of laws, requirements, policies and orders.

3. State system and functions (CE-3)

3.1 States shall establish relevant authorities or agencies, as appropriate, supported by sufficient and qualified personnel and provided with adequate financial resources for the management of safety.

3.2 States authorities or agencies shall have stated safety functions and objectives to fulfil their safety management responsibility.

Note.— This includes the participation of the 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.

3.3 **Recommendation.—** *States should take necessary measures, such as remuneration and conditions of service, to ensure that qualified personnel performing safety oversight functions are recruited and retained*.

3.4 States shall ensure that personnel performing safety oversight functions are provided with guidance that addresses ethics, personal conduct and the avoidance of actual or perceived conflicts of interest in the performance of official duties.

3.5 States shall use a methodology to determine their staffing requirements for personnel performing safety oversight functions.

Note.— In addition, Appendix 5 to Annex 6, Part I, and Appendix 1 to Annex 6, Part III, require the State of the Operator to use such a methodology to determine its inspector staffing requirements. Inspectors are a subset of personnel performing safety oversight functions.

4. Qualified technical personnel (CE-4)

4.1 States shall establish minimum qualification requirements for the technical personnel performing safety-related functions and provide for appropriate initial and recurrent training to maintain and enhance their competence at the desired level.

4.2 States shall implement a system for the maintenance of training records for technical personnel.

5. Technical guidance, tools and provision of safety-critical information (CE-5)

5.1 States shall provide appropriate facilities, comprehensive and up-to-date technical guidance material and procedures, safety-critical information, tools and equipment, and transportation means, as applicable, to the technical personnel to enable them to perform their safety oversight functions effectively and in accordance with established procedures in a standardized manner.

5.2 States shall provide technical guidance to the aviation industry on the implementation of relevant regulations.

6. Licensing, certification, authorization and approval obligations (CE-6)

States shall implement documented processes and procedures to ensure that individuals and organizations performing an aviation activity meet the established requirements before they are allowed to exercise the privileges of a licence, certificate, authorization or approval to conduct the relevant aviation activity.

7. Surveillance obligations (CE-7)

States shall implement documented surveillance processes, by defining and planning inspections, audits and monitoring activities on a continual basis, to proactively assure that aviation licence, certificate, authorization and approval holders continue to meet the established requirements. This includes the surveillance of personnel designated by the Authority to perform safety oversight functions on its behalf.

8. Resolution of safety issues (CE-8)

8.1 States shall use a documented process to take appropriate actions, up to and including enforcement measures, to resolve identified safety issues.

8.2 States shall ensure that identified safety issues are resolved in a timely manner through a system which monitors and records progress, including actions taken by individuals and organizations performing an aviation activity in resolving such issues.

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APPENDIX 2. FRAMEWORK FOR A SAFETY MANAGEMENT SYSTEM (SMS)

(*See Chapter 4, 4.1.1*)

Note 1.— Guidance on the implementation of the framework for an SMS is contained in the Safety Management Manual *(Doc 9859).*

Note 2.— The service provider's interfaces with other organizations can make a significant contribution to the safety of its products or services. Guidance on interface management as it relates to SMS is provided in the Safety Management Manual *(Doc 9859).*

Note 3.— In the context of this appendix as it relates to service providers, an "accountability" refers to an "obligation" that may not be delegated, and "responsibilities" refers to functions and activities that may be delegated.

This appendix specifies the framework for the implementation and maintenance of an SMS. The framework comprises four components and twelve elements as the minimum requirements for SMS implementation:

1. Safety policy, objectives and resources (SMS Component 1)

    1.1 Management commitment
    1.2 Safety accountability and responsibilities
    1.3 Appointment of key safety personnel
    1.4 Coordination of emergency response planning
    1.5 SMS documentation

2. Safety risk management (SMS Component 2)

    2.1 Hazard identification
    2.2 Safety risk assessment and mitigation

3. Safety assurance (SMS Component 3)

    3.1 Safety performance measurement and monitoring
    3.2 The management of change
    3.3 Continual improvement of the SMS

4. Safety promotion (SMS Component 4)

    4.1 Training and education
    4.2 Safety communication

1. Safety policy, objectives and resources (SMS Component 1)

1.1 Management commitment

1.1.1 The service provider shall define its safety policy in accordance with international and national requirements. The safety policy shall:

a) reflect organizational commitment regarding safety, including the promotion of a positive safety culture;

b) include a clear statement about the provision of the necessary resources for the implementation of the safety policy;

c) include safety reporting procedures;

d) clearly indicate which types of behaviours are unacceptable related to the service provider's aviation activities and include the circumstances under which disciplinary action would not apply;

e) be signed by the accountable executive of the organization;

f) be communicated, with visible endorsement, throughout the organization; and

g) be periodically reviewed to ensure it remains relevant and appropriate to the service provider.

1.1.2 Taking due account of its safety policy, the service provider shall define safety objectives. The safety objectives shall:

a) form the basis for safety performance measurement and monitoring as required by 3.1;

b) reflect the service provider's commitment to maintain or continually improve the overall effectiveness of the SMS;

c) be communicated throughout the organization; and

d) be periodically reviewed to ensure they remain relevant and appropriate to the service provider.

1.1.3 **Recommendation**.— *When defining safety objectives, the service provider should consider safety objectives established at the State level, where appropriate.*

Note.— Guidance on setting safety objectives is provided in the Safety Management Manual *(Doc 9859)*.

1.2 Safety accountability and responsibilities

The service provider shall:

a) identify the accountable executive who, irrespective of other functions, is accountable on behalf of the organization for the implementation and maintenance of an effective SMS;

b) clearly define lines of safety accountability throughout the organization, including a direct accountability for safety on the part of senior management;

c) identify the responsibilities of all members of management, irrespective of other functions, as well as of employees, with respect to the safety performance of the organization;

d) document and communicate safety accountability, responsibilities and authorities throughout the organization; and

e) define the levels of management with authority to make decisions regarding safety risk tolerability.

1.3 Appointment of key safety personnel

The service provider shall appoint a safety manager who is responsible for the implementation and maintenance of the SMS.

Note.— The responsibilities for the implementation and maintenance of the SMS may be assigned to one or more persons, fulfilling the role of safety manager, as their sole function or combined with other duties, provided these do not result in any conflicts of interest. Guidance is contained in the Safety Management Manual *(Doc 9859).*

1.4 Coordination of emergency response planning

The service provider required to establish and maintain an emergency response plan for accidents and incidents in aircraft operations and other aviation emergencies shall ensure that the emergency response plan is properly coordinated with the emergency response plans of those organizations it must interface with during the provision of its products and services.

1.5 SMS documentation

1.5.1 The service provider shall develop and maintain an SMS manual that describes its:

a) safety policy, objectives and resources;

b) SMS requirements;

c) SMS processes and procedures; and

d) accountability, responsibilities and authorities for SMS processes and procedures.

1.5.2 The service provider shall develop and maintain SMS operational records as part of its SMS documentation.

Note.— The SMS manual and SMS operational records may be in the form of stand-alone documents or may be integrated with other organizational documents (or documentation) maintained by the service provider.

2. Safety risk management (SMS Component 2)

2.1 Hazard identification

2.1.1 The service provider shall develop and maintain a process to identify hazards, including hazards related to internal and external interfaces, associated with its aviation products or services.

2.1.2 Hazard identification shall be based on a combination of reactive and proactive methods.

2.2 Safety risk assessment and mitigation

The service provider shall develop and maintain a process that ensures analysis, assessment and control of the safety risks associated with identified hazards.

Note 1.— Guidance on the use of analysis methods to support safety risk assessments can be found in the Safety Management Manual *(Doc 9859) and the* Safety Intelligence Manual *(Doc 10159).*

Note 2.— In order to reduce the overall risk in the aviation system, when managing safety risks, it is beneficial to consider the impact on aviation safety from risk management strategies implemented in other domains (for example, aviation security, facilitation, economics and environment) and vice versa.

3. Safety assurance (SMS Component 3)

3.1 Safety performance measurement and monitoring

The service provider shall establish means to:

a) measure and monitor the safety performance of the organization;

b) measure and monitor the progress towards achieving its safety objectives; and

c) validate the effectiveness of safety risk controls.

Note.— An internal audit process is one means to monitor compliance with safety regulations and validate the effectiveness of safety risk controls. Guidance on safety performance measurement and monitoring, including the internal audit process, the establishment of safety performance indicators, qualitative means and the appropriate use of safety performance targets, is contained in the Safety Management Manual *(Doc 9859).*

3.2 The management of change

The service provider shall develop and maintain a process to identify changes which may affect the level of safety risk associated with its aviation products or services and to identify and manage the safety risks that may arise from those changes.

3.3 Continual improvement of the SMS

The service provider shall monitor and assess its SMS processes to maintain or continually improve the overall effectiveness of the SMS.

4. Safety promotion (SMS Component 4)

4.1 Training and education

4.1.1 The service provider shall develop and maintain a safety training programme that ensures that personnel are trained and competent to perform their SMS duties.

4.1.2 The scope of the safety training programme shall be appropriate to each individual's involvement in the SMS.

4.2 Safety communication

The service provider shall develop and maintain a formal means for safety communication that:

a) ensures personnel are aware of the SMS to a degree commensurate with their positions;

b) conveys safety-critical information;

c) explains why particular actions are taken to improve safety; and

d) explains why safety procedures are introduced or changed.

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APPENDIX 3. PRINCIPLES FOR THE PROTECTION OF SAFETY DATA, SAFETY INFORMATION AND RELATED SOURCES

(*See Chapter 5, 5.4*)

Note 1.— The protection of safety data, safety information and related sources is essential to ensure their continued availability, since the use of safety data and safety information for purposes other than maintaining or improving safety may inhibit the future availability of such data and information, with a significant adverse effect on safety.

Note 2.— In view of their different legal systems, States have the flexibility to draft their laws and regulations in accordance with their policies and practices.

Note 3.— The principles contained in this appendix are aimed at assisting States to enact and adopt national laws, regulations and policies to protect safety data and safety information gathered from their safety data collection and processing system (SDCPS), as well as related sources, while allowing for the proper administration of justice and necessary actions for maintaining or improving aviation safety.

Note 4.— The objective is to ensure the continued availability of safety data and safety information by restricting their use for purposes other than maintaining or improving aviation safety.

1. General principles

1.1 States shall, through national laws, regulations and policies protecting safety data, safety information and related sources, ensure that:

a) a balance is struck between the need for the protection of safety data, safety information and related sources to maintain or improve aviation safety, and the need for the proper administration of justice;

b) safety data, safety information and related sources are protected in accordance with this appendix;

c) the conditions under which safety data, safety information and related sources qualify for protection are specified; and

d) safety data and safety information remain available for the purpose of maintaining or improving aviation safety.

Note.— The protection of safety data, safety information and related sources is not intended to interfere with the proper administration of justice or with maintaining or improving safety.

1.2 When an investigation under Annex 13 has been instituted, accident and incident investigation records listed in 5.12 of Annex 13 shall be subject to the protections accorded therein instead of the protections accorded by this Annex.

2. Principles of protection

2.1 States shall ensure that safety data or safety information is not used for:

a) disciplinary, civil, administrative and criminal proceedings against employees, operational personnel or organizations;

b) disclosure to the public; or

c) any purposes other than maintaining or improving safety;

unless a principle of exception applies.

2.2 States shall accord protection to safety data, safety information and related sources by ensuring that:

a) the protection is specified based on the nature of safety data and safety information;

b) a formal procedure to provide protection to safety data, safety information and related sources is established;

c) safety data and safety information will not be used in a way different from the purposes for which they were collected, unless a principle of exception applies; and

d) to the extent that a principle of exception applies, the use of safety data and safety information in disciplinary, civil, administrative and criminal proceedings will be carried out only under authoritative safeguards.

Note 1.— The formal procedure may include that any person seeking disclosure of safety data or safety information will provide the justification for its release.

Note 2.— Authoritative safeguards include legal limitations or restrictions such as protective orders, closed proceedings, in-camera review, and de-identification of data for the use or disclosure of safety information in judicial or administrative proceedings.

3. Principles of exception

Exceptions to the protection of safety data, safety information and related sources shall only be granted when the competent authority:

a) determines that there are facts and circumstances reasonably indicating that the occurrence may have been caused by an act or omission considered, in accordance with national laws, to be conduct constituting gross negligence, wilful misconduct or criminal activity;

b) after reviewing the safety data or safety information, determines that its release is necessary for the proper administration of justice, and that the benefits of its release outweigh the adverse domestic and international impact such release is likely to have on the future collection and availability of safety data and safety information; or

c) after reviewing the safety data or safety information, determines that its release is necessary for maintaining or improving safety, and that the benefits of its release outweigh the adverse domestic and international impact such release is likely to have on the future collection and availability of safety data and safety information.

Note 1.— In administering the decision, the competent authority takes into account the consent of the source of the safety data and safety information.

Note 2.— Different competent authorities may be designated for different circumstances. The competent authority could include, but is not limited to, judicial authorities or those otherwise entrusted with aviation responsibilities designated in accordance with national law.

4. Public disclosure

4.1 States that have right-to-know laws shall, in the context of requests made for public disclosure, create exceptions from public disclosure to ensure the continued confidentiality of voluntarily supplied safety data and safety information.

Note.— Laws, regulations and policies commonly referred to as right-to-know laws (freedom-of-information, open records, or sunshine laws) allow for public access to information held by the State.

4.2 Where disclosure is made in accordance with section 3, States shall ensure that:

a) public disclosure of relevant personal information included in the safety data or safety information complies with applicable privacy laws; or

b) public disclosure of the safety data or safety information is made in a de-identified, summarized or aggregate form.

5. Responsibility of the custodian of safety data and safety information

States shall ensure that the SDCPS has a designated custodian to apply the protection to safety data and safety information in accordance with applicable provisions of this appendix.

Note.— The "custodian" may refer to an individual or organization.

6. Protection of recorded data

Note 1.— Ambient workplace recordings required by national laws, for example, cockpit voice recorders (CVRs) or recordings of background communication and the aural environment at air traffic controller work stations, may be perceived as constituting an invasion of privacy for operational personnel that other professions are not exposed to.

Note 2.— Provisions on the protection of flight recorder recordings and recordings from air traffic control units during investigations instituted under Annex 13 are contained therein. Provisions on the protection of flight recorder recordings during normal operations are contained in Annex 6.

6.1 States shall, through national laws and regulations, provide specific measures of protection regarding the confidentiality and access by the public to ambient workplace recordings.

6.2 States shall, through national laws and regulations, treat ambient workplace recordings required by national laws and regulations as privileged protected data subject to the principles of protection and exception as provided for in this appendix.

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