



Agenda Item 7: Other Business

THE NEW ICAO ANNEX 19 - A SAFETY MANAGEMENT STRATEGIC APPROACH

(Presented by the Secretariat)

SUMMARY	
<p>This working paper presents an introduction to the new ICAO Annex 19, <i>Safety Management</i>, envisaged for applicability 14 November 2013.</p> <p>The new Annex 19 presents a strategic approach to implement a comprehensive State safety framework, which includes four major elements: Policy and Standardization, Safety Monitoring, Safety Analysis, and Implementation in accordance with the Global Aviation Safety Plan (GASP).</p>	
References:	
<ul style="list-style-type: none">• Doc 9734 - <i>Safety Oversight Manual</i>• Doc 9735 - <i>Universal Safety Oversight Audit Programme Continuous Monitoring Manual</i>• Doc 9859 – <i>Safety Management Manual (SMM)</i>• State Letter (Ref.: AN 8/3-13/30) dated 8 April 2013, with the proposal for Annex 19 and related consequential amendments to Annexes 1, 6, 8, 11, 13 and 14, Volume I.	
Strategic Objective	<i>This working paper is related to Strategic Objective A: Safety</i>

1. Background

1.1 A recommendation from the High-level Safety Conference held in 2010 provided the impetus for the development of a new ICAO Annex dedicated to safety management. The Conference recommended that the new Annex should contain safety responsibilities framed under the State Safety Programme (SSP).

1.2 Based on the recommendations made by the Air Navigation Commission, the ICAO Council approved a two-phased approach. The first phase consolidates the currently existing requirements in six different Annexes into a single new Annex 19. The development of additional new requirements will be the focus of the second phase once the new Annex becomes applicable.

1.3 On 29 June 2012, the Secretary General sent Contracting States and appropriate international organizations State Letter AN 8/3-12/42 with the proposal for Annex 19 and related consequential amendments to Annexes 1, 6, 8, 11, 13 and 14, Volume I, envisaged for applicability on 14 November 2013.

1.4 Annex 19 contains a number of new requirements considered necessary to promote implementation of State Safety Programmes (SSP) and Safety Management Systems (SMS). Some modifications were made to maintain clarity and/or harmonization and avoid duplication of Standards and Recommended Practices (SARPs).

1.5 The transfer of existing overarching safety management provisions to Annex 19 consolidates and organizes them in a way to facilitate State implementation of the related practices necessary to enhance aviation safety.

1.6 The first safety management provisions were introduced into Annexes 11 and 14 in 2001, requiring what was known then as safety management programmes for Air Navigation Service Providers (ANSPs) and airport operators. Safety programme provisions for States were then introduced in 2006 in Annexes 6, 11 and 14. Requirements for the implementation of SMS followed in 2009 for air operators, ANSPs and airport operators.

1.7 A significant number of new provisions became applicable in 2010, including requirements for establishing SSPs as well as adding SMS requirements for approved training organizations, approved maintenance organizations, air operators as well as design and manufacturing organizations.

1.8 On 8 April 2013, the Secretary General distributed State Letter AN 8/3.13/30, adopting Annex 19 and requesting States to notify ICAO of any disapproval before 15 July 2013; notifying any differences and compliance before 14 October 2013; and to consider the use of the Electronic Filing of Differences System (EFOD) for notification of differences and compliance.

2. *New Annex 19 Summary*

2.1 ***Chapter 1*** includes 12 existing definitions and 6 new definitions.

2.1.1 The duplicated definitions *Accident, Aeroplane, Aircraft, Helicopter, Incident, Industry code of practice, Serious injury, State of Design, State of Manufacturer and State of the Operator*, which currently exist in other Annexes, have been replicated in Annex 19 and will remain in the relevant Annexes in which they are used.

2.1.2 The definition of *Incident* was duplicated from Annex 13 and amended in reference to proactive safety-related studies in lieu of accident prevention studies.

2.1.3 The modifications to the definition of SSP and SMS reflect the fact that an SSP is established by the State and aimed at managing civil aviation safety.

2.1.4 The new definitions *Safety*, *Safety performance*, *Safety performance indicator*, *Safety performance target* and *Safety risk* are specific to the concept of safety management.

2.2 **Chapter 2** defines the applicability of the Annex, according to the safety management responsibilities of Contracting States and aviation activities related to, or in direct support of, the safe operation of aircraft.

2.3 **Chapter 3** consolidates existing SSP standards from Annexes 1, 6, 8, 11, 13 and 14 related to the State's safety management responsibilities.

2.3.1 The four components of the SSP Framework such as State safety policy, State safety risk management, State safety assurance, and State safety promotion have been elevated to Standards. The 11 underlying elements of the SSP framework remain as Attachment A to Annex 19, providing essential guidance material to support their implementation.

2.3.2 The SSP framework also includes the implementation of SMS for aviation service providers. This approach aims to ensure that the new Annex would be established expeditiously while maintaining continuity with the current SSP and SMS requirements.

2.3.3 The requirement for States to achieve an Acceptable Level of Safety (ALoS) is now known as an Acceptable Level of Safety Performance (ALoSP), which is a conceptual change that links this requirement with specific safety indicators and safety targets.

2.3.4 Chapter 3 also includes a new Standard requiring States to implement a documented safety oversight system, which is consistent with the ICAO Universal Safety Oversight Audit Programme (USOAP) Continuous Monitoring Approach (CMA). The documented process shall ensure appropriate corrective actions in a timely manner, including enforcement measures to resolve identified safety issues, as required.

2.3.5 This Standard contains the 8 Critical Elements (CE) of ICAO Doc 9734, as included in the **Appendix** to this working paper, which requires the implementation of a State safety oversight system applicable to all service providers. This Standard is not totally new, it broadens the existing Appendix 5 to Annex 6 related to the oversight of air operators.

2.3.6 Initially, two future work items will be considered during the second phase. First is to determine the relationship between the SSP and safety oversight systems to ensure harmonization and to eliminate any redundancy. In addition, new emergency response requirements for States as part of their SSP will be analysed.

2.4 **Chapter 4** contains provisions related to the establishment of SMS, currently in Annexes 1, 6, 8, 11 and 14, which remain essentially unchanged. The SMS Framework is contained in Appendix 2 to the new Annex 19. There are some editorial modifications due to the consolidation of these requirements into a single Annex.

2.4.1 The existing prescriptive approach to safety must be complemented with a performance-based approach for an effective implementation of SMS by service providers. The SMS requirements are explicit to ensure that the acceptance of a service provider's SMS is related to the State or States' responsibility for harmonized SMS approval or certification of a particular service provider.

2.4.2 The list of service providers includes approved maintenance organizations, approved training organizations, air operators, design and manufacturing organizations, ANSPs and operators of certified aerodromes. In the context of safety management, service providers are those entities for whom the SMS framework included in Appendix 2 is applicable.

2.4.3 SMS requirements in Annex 8 for design and manufacturing organizations will be applicable in 2013 - three years later than the applicability date of SMS requirements for the other service providers. This extension was made in order to allow additional time for SMS implementation by service providers for whom "operations" have a unique context in comparison to the other types of service providers who are directly involved in the operation of aircraft.

2.4.4 The requirement for implementation of SMS by international general aviation operators was transferred from Annex 6 Part II. SMS implemented by general aviation operators should be consistent to the size and complexity of their operations rather than requiring adherence to all elements of the SMS framework. This provides the necessary flexibility to reflect the wide range of operations performed by the general aviation community.

2.4.5 A number of specific SMS requirements remain in their original Annexes because they are related to a single type of service provider. For example, the original Standards in Annex 6 require air operators to implement Flight Data Analysis (FDA) programmes as part of their SMS. Since this type of programme is specific only to air operators, the FDA requirements are being retained in Annex 6, with the appropriate cross references in Annex 19.

2.5 *Chapter 5* includes provisions related to the collection, protection and analysis of safety data and through a prompt and secure exchange of safety information as part of the SSP. There are some modifications to ensure that all State agencies with SSP responsibilities have appropriate access to safety data.

2.5.1 The Standards to establish mandatory and a voluntary incident reporting systems were transferred from other existing Standards to consolidate safety management provisions. The editorial amendment to begin the provision with "*Each State shall establish...*" is consistent with the Chicago Convention on International Civil Aviation.

2.5.2 The new Recommended Practice regarding the protection of information gleaned through safety management processes complements the provisions retained in Annex 13 related to accident investigation records.

2.5.3 Attachment B is a duplication of Attachment E from Annex 13 that contains safety management provisions related to the legal protection of information from safety data collection and processing systems. The text was slightly modified for the purpose of consistency with other Annex 19 provisions to reference operational personnel involved in aviation activities.

3. Conclusion

3.1 The SARPs in Annex 19 are intended to assist States in managing aviation safety risks, with the objective of continuously reducing the number of accidents and incidents of air operations.

3.2 The foundation of a proactive strategy for successful safety management is based on the comprehensive implementation of the USOAP/CMA, SSP, SMS, and the provisions and activities of accident and incident investigation.

3.3 The purpose of gathering all the mentioned provisions into a single Annex is to focus States' attention on the importance of integrating all those diverse aviation related activities into one single safety management framework.

3.4 The current regional safety context envisages many challenges that will only be possible through the cooperation of States, international organizations and users. One of them is to establish accident and incident reporting systems and safety data collection and processing systems using Accident/Incident Reporting (ADREP)-compatible systems.

3.5 Certain State safety management functions required in Annex 19 may be delegated to a Regional Safety Oversight Organization (RSOO) or a Regional Accident and Incident Investigation Organization (RAIO) on behalf of the State(s).

3.6 In support of the implementation of a regional safety management framework, the ICAO NACC Regional Office organized several activities to improve safety, such as SSP and SMS implementation courses, ECCAIRS workshops, and a Regional Workshop on Air Navigation Services (ANS) Inspection Programmes, which has been scheduled to be held in Mexico City from 18 to 21 June 2013, to address States' needs. Nevertheless, further actions are necessary to ensure regional harmonized implementation of safety management.

3.7 Likewise, the SAM Regional Office has carried out in the last five years the following activities to support the implementation of a regional safety management framework. All this grouping of activities are part of the SSP implementation program for SAM Region, a dedicated link to this program is soon to be deployed and will include the National Annual Safety Reports of SAM States that have develop them under their SSPs.

- ✓ 5 SMS courses and 1 seminar, 186 participants;
- ✓ 12 SSP courses, 268 participants;
- ✓ 2 SSP coordinators courses, 10 participants (5 trained as instructors);
- ✓ 6 ADREP/ECCAIRS courses, 179 participants;
- ✓ A pilot plan of SRVSOP for the implementation of SMS in OMAs with the support of Transport Canada;
- ✓ 2 courses of aeronautical studies for aerodromes, 55 participants;
- ✓ 1 workshop for protection of safety information with 20 participants;

- ✓ 2 SRVSOP advisories circulars have been developed to implement the SMS in OMA and air operators;
- ✓ A SMS chapter has been developed in the SRVSOP inspector operations manual (MIO) to provide direction and guidance for operations inspectors regarding the acceptance of the SMS for air operators;
- ✓ 3 regional officers, 1 SRVSOP specialist and 1 State's expert received training to become ICAO SMS instructors.

4. Suggested Action

4.1 The Meeting is invited to:

- a) take note of the information in this working paper and the adoption of Annex 19;
- b) urge States to prepare for the new Annex 19 and consequential amendments to Annexes 1, 6, 8, 11, 13 and 14, Volume I, envisaged for applicability on 14 November 2013;
- c) encourage States to establish accident and incident reporting systems and safety data collection and processing systems using ADREP-compatible systems;
- d) identify and support other regional activities towards the implementation of a regional safety management framework; and
- e) recommend other actions as deemed appropriate.

APPENDIX

APPENDIX 1. STATE SAFETY OVERSIGHT SYSTEM

(See Chapter 3, 3.2)

Note 1.— Guidance on the critical elements 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’s 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 oversight responsibility which may be established by the State as separate entities, such as: Civil Aviation Authorities, Airport Authorities, ATS Authorities, Accident Investigation Authority, and Meteorological Authority.

Note 3.— 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.

Note 4.— Within the context of this appendix the term “service provider” refers to those organizations listed in Chapter 3, 3.1.3.

1. Primary aviation legislation

1.1 The State shall promulgate a comprehensive and effective aviation law, consistent with the size and complexity of the State’s aviation activity and with the requirements contained in the Convention on International Civil Aviation, that enables the State to regulate civil aviation and enforce regulations through the relevant authorities or agencies established for that purpose.

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 service providers.

2. Specific operating regulations

The State 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

3.1 The State shall establish relevant authorities or agencies, as appropriate, supported by sufficient and qualified personnel and provided with adequate financial resources. Each State authority or agency shall have stated safety functions and objectives to fulfil its safety management responsibilities.

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

3.3 The State 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.

3.4 **Recommendation.**— *The State should use a methodology to determine its staffing requirements for personnel performing safety oversight functions, taking into account the size and complexity of the aviation activities in that State.*

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

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

4.2 The State shall implement a system for the maintenance of training records.

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

5.1 The State 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 The State shall provide technical guidance to the aviation industry on the implementation of relevant regulations.

6. Licensing, certification, authorization and/or approval obligations

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

7. Surveillance obligations

The State shall implement documented surveillance processes, by defining and planning inspections, audits, and monitoring activities on a continuous basis, to proactively assure that aviation licence, certificate, authorization and/or 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

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

8.2 The State shall ensure that identified safety issues are resolved in a timely manner through a system which monitors and records progress, including actions taken by service providers in resolving such issues.
