



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

Tel.: +1 (514) 954-8219 ext. 5821

Ref.: AN 12/51-07/74

7 December 2007

Subject: Proposal for the amendment of Annex 1, Annex 6, Parts I and III, Annex 8, Annex 11, Annex 13 and Annex 14, Volume I, to harmonize and extend provisions relating to safety management

Action required: Comments to reach Montréal by 31 March 2008

Sir/Madam,

1. I have the honour to inform you that the Air Navigation Commission, at the fourth meeting of its 176th Session held on 25 October 2007, carried out a preliminary review of a proposal for the amendment of Annex 1 – *Personnel Licensing*, Annex 6 – *Operation of Aircraft*, Part I – *International Commercial Air Transport – Aeroplanes* and Part III – *International Operations – Helicopters*, Annex 8 – *Airworthiness of Aircraft*, Annex 11 – *Air Traffic Services*, Annex 13 – *Aircraft Accident and Incident Investigation* and Annex 14 – *Aerodromes*, Volume I – *Aerodrome Design and Operations*, to harmonize and extend provisions relating to safety management. The Commission reviewed the proposed amendments and authorized their transmission to Contracting States and selected international organizations for comments. The proposed amendments are in Attachments A, B, C, D, E and F, respectively.

2. The proposal is a continuation of the harmonization of provisions relating to safety management in Annex 6, Parts I and III, Annex 11, and Annex 14, Volume I, initiated in 2005. In order to reinforce the safety management systems concept, it is also proposed that it be extended to Annexes 1, 8, and 13. The proposal centres around the introduction of two frameworks, one for the implementation and maintenance of a State's safety programme, the other for the implementation and maintenance of a service provider's safety management system (SMS). It also includes editorial/alignment amendments to the Annexes under consideration.

3. With regard to Annex 1, the proposal addresses the medical assessment of licence holders and the approval of training organizations. Regarding the medical assessment of licence holders, the amendment proposes the incorporation of principles of safety management and a risk management approach to the medical assessment of licence applicants. With regard to the approval of training organizations, the proposal introduces the requirement that an approved training organization that is exposed to activities involving operational safety risks (activities conducted in an operational environment, such as flight training) implements a safety management system acceptable to the State.

4. With regard to Annex 6, Part III, the proposal introduces the requirement for helicopter maintenance organizations to implement a safety management system acceptable to the State. This is consistent with the objective of maintaining Annex 6, Parts I and III as closely aligned as appropriate.

5. With regard to Annex 8, the intent of the proposal is, beyond the harmonization of Annex 8, Part II with existing safety management requirements in other Annexes, to provide a platform to develop the necessary guidance material as part of future work of ICAO.

6. With regard to Annex 13, the proposal introduces the responsibility of accident and incident investigation as an element of the State's safety programme. The proposal also strengthens existing safety management provisions in Chapter 8 – Accident Prevention Measures, and aligns the provisions with the State's safety programme.

7. The proposal includes an appendix describing a framework for a service provider's SMS, to be included in Annexes 1, 6, Parts I and III, 8, 11 and 14, Volume I. The framework aims at achieving consensus regarding standardization of SMS, by providing a principled guide for the implementation of SMS by service providers, as well as to develop guidance on SMS regulation by ICAO and national SMS regulation by States. The framework was developed on the basis of analysis of best industry practices, and developments in States, and the feedback from representatives of States through more than fifty-five SMS training courses delivered between May 2006 and November 2007. It consists of four basic components, subdivided into thirteen elements. At the centre of the framework are the two basic components of an SMS: safety risk management, proposed as an initial activity, and safety assurance, proposed as a continuous activity to ensure that the assumptions underlying the initial safety risk management remain valid and applicable, and/or to introduce changes as necessary. These two core activities take place under the umbrella provided by safety policy and objectives and are supported by safety promotion. The appendix includes a brief description of each component and element of the proposed framework.

8. Lastly, the proposal includes an attachment describing a framework for a State's safety programme to be included in Annex 11, and cross-referenced in Annexes 1, 6, Parts I and III, 8, 13 and 14, Volume I. The feedback received from States through the programme of SMS training courses indicates the need to develop guidance for States for the organization of their safety programmes, including the relationship with the State's safety oversight function. A brief discussion follows.

8.1 A State's safety oversight function is a part of a State's safety programme. The objectives of the State's safety oversight function are satisfied through administrative controls (inspections, audits and surveys) carried out regularly by civil aviation authorities. The critical elements of a State's safety oversight function do not, in themselves, constitute safety risk controls. The State's safety programme is necessary to turn the critical elements into safety risk controls. For example, a State's safety oversight function verifies that a State has a system of regulations, but neither requires a safety risk analysis to produce such regulations, nor does it monitor the effectiveness of regulations as safety risk controls. The State's safety programme, on the other hand, considers regulations as safety risk controls requiring, through its safety risk management component, that the process of rulemaking be done using principles of

safety risk management (identify specific hazards, conduct risk analysis, develop rules that provide acceptable mitigation of the hazards' effects), and monitoring, through its safety assurance component, the effectiveness and efficiency of regulations as safety risk controls.

8.2 Clear articulation of the difference between regulations as administrative controls and regulations as safety risk controls underlies the shift from prescriptive regulation to performance based regulation. The State's safety programme, as proposed in the framework, is a first enabling step in such a shift. Furthermore, the integration into the State's safety programme, as appropriate, of the principles underlying the role of the critical elements of a State's safety oversight function will yield a more robust and effective State safety programme.

9. The hazard addressed by both the SMS and the State's safety programme frameworks is the lack of standardization regarding the components of a service provider's SMS or a State's safety programme. The risk is the inability by States to organize their safety programmes or develop national regulations regarding SMS. The frameworks are proposed as mitigation strategy to this risk.

10. I would be grateful if you could include in your reply any information available within your State that may assist ICAO to assess the impact of the proposed amendment. As it is oftentimes the case with health, environmental and safety regulations, a cost-benefit analysis may not be possible. Nevertheless, a quantitative assessment of the impact of the proposed amendment in your State should be possible. I am therefore requesting your estimate regarding resources and procedures by your State as well as by industry that will be needed to ensure that the new provisions are developed, implemented and observed.

11. In examining the proposed amendment, you should not feel obliged to comment on editorial aspects as such matters will be addressed by the Air Navigation Commission during the final review of the draft amendment.

12. May I request that any comments you may wish to make on the proposed amendment be dispatched to reach me not later than 31 March 2008. The Air Navigation Commission has asked me to specifically indicate that comments received after the due date may not be considered by the Commission and the Council. In this connection, should you anticipate a delay in the receipt of your reply, please let me know in advance of the due date.

13. Considering that the proposed amendment involves further harmonization of existing provisions in Annexes 6, Parts I and III, Annex 11, Annex 13 and Annex 14, Volume I, the Commission envisages an applicability date for these Annexes of 19 November 2009. The Commission envisages a separate applicability date of 18 November 2010 for the proposed provisions in Annex 1 and Annex 8. Any comments you may have concerning the proposed applicability dates would be appreciated.

14. The subsequent work of the Air Navigation Commission and the Council would be greatly facilitated by specific statements on the acceptability or otherwise of the proposal. Please note that, for the review of your comments by the Air Navigation Commission and the Council, replies are normally classified as “agreement with or without comments”, “disagreement with or without comments”, or “no indication of position”. If in your reply the expressions “no objections” or “no comments” are used, they will be taken to mean “agreement without comment” and “no indication of position”, respectively. In order to facilitate proper classification of your response, a form has been included in Attachment G which may be completed and returned together with your comments, if any, on the proposals in Attachments A, B, C, D, E and F.

Accept, Sir/Madam, the assurances of my highest consideration.

Taïeb Chérif
Secretary General

Enclosures:

- A — Proposed amendment to Annex 1
- B — Proposed amendment to Annex 6, Parts I and III
- C — Proposed amendment to Annex 8
- D — Proposed amendment to Annex 11
- E — Proposed amendment to Annex 13
- F — Proposed amendment to Annex 14, Volume I
- G — Response form

**PROPOSED AMENDMENT TO
INTERNATIONAL STANDARDS
AND RECOMMENDED PRACTICES**

PERSONNEL LICENSING

**ANNEX 1
TO THE CONVENTION ON INTERNATIONAL CIVIL AVIATION**

NOTES ON THE PRESENTATION OF THE PROPOSED AMENDMENT

The text of the amendment is arranged to show deleted text with a line through it and new text highlighted with grey shading, as shown below:

1. ~~Text to be deleted is shown with a line through it.~~ text to be deleted
2. **New text to be inserted is highlighted with grey shading.** new text to be inserted
3. ~~Text to be deleted is shown with a line through it~~ followed by the replacement text which is highlighted with grey shading. new text to replace existing text

CHAPTER 1. DEFINITIONS AND GENERAL RULES CONCERNING LICENSING

1.1 Definitions

...

Safety management system. *A systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures.*

Safety programme. *An integrated set of regulations and activities aimed at improving safety.*

...

1.2.4 Medical fitness

...

1.2.4.2 Recommendation.— *States should apply, as part of their safety programme, basic safety management principles to the medical assessment process of license holders, that as a minimum include:*

- a) routine collection and analysis of in-flight incapacitation events and medical findings during medical assessments to identify areas of increased medical risk; and*
- b) continuous re-evaluation of the medical assessment process to concentrate on identified areas of increased medical risk.*

Note. — *A framework for the implementation and maintenance of a State's safety programme is contained in Attachment F to Annex 11. Guidance on safety programmes and safety management principles is contained in the Safety Management Manual (SMM) (Doc 9859) and the Manual of Civil Aviation Medicine (Doc 8984).*

~~1.2.4.2~~ **1.2.4.3** The period of validity of a Medical Assessment shall begin on the day the medical examination is performed. The duration of the period of validity shall be in accordance with the provisions of 1.2.5.2

Editorial note.— Renumber subsequent paragraphs accordingly.

...

1.2.8 Approved training and approved training organization

...

1.2.8.2 The approval of a training organization by a State shall be dependent upon the applicant demonstrating compliance with the requirements of Appendix 2 and Appendix 4.

...

CHAPTER 6. MEDICAL PROVISIONS FOR LICENSING

...

Note 6. – Basic safety management principles, when applied to the medical assessment process, can help ensure that aero medical resources are utilized effectively.

...

APPENDIX 2. APPROVED TRAINING ORGANIZATION

(Chapter 1, 1.2.8.2 refers)

...

4. Safety management

4.1 States shall require, as part of their safety programme, that an approved training organization that is exposed to operational safety risks during the provision of its services implement a safety management system acceptable to the State that, as a minimum:

- a) identifies safety hazards;
- b) ensures that remedial action necessary to maintain an acceptable level of safety is implemented;
- c) provides for continuous monitoring and regular assessment of the safety level achieved; and
- d) aims to make continuous improvement to the overall level of safety.

4.2 A safety management system shall clearly define lines of safety accountability throughout the approved training organization, including a direct accountability for safety on the part of senior management.

Note 1.— A framework for the implementation and maintenance of a State's safety programme is contained in Attachment F to Annex 11

Note 2.— A framework for the implementation and maintenance of a safety management system is contained in Appendix 4. Guidance on safety management systems is contained in the Safety Management Manual (SMM) (Doc 9859).

4-5. Quality assurance system

Editorial note.— Re-number subsequent paragraphs.

...

Insert new Appendix 4 as follows:

**APPENDIX 4. FRAMEWORK FOR
SAFETY MANAGEMENT SYSTEMS (SMS)**
(Chapter 1, 1.2.8.2 refers)

Introduction

This appendix introduces a framework for the implementation and maintenance of a safety management system (SMS) by an approved training organization that is exposed to operational safety risks during the provision of its services. The framework consists of four components and thirteen elements, and its implementation shall be commensurate with the size of the organization and the complexity of the services provided. This appendix also includes a brief description of each element of the framework.

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

1. Safety policy and objectives

1.1 Management commitment and responsibility

The approved training organization shall define the organization's safety policy which shall be in accordance with international and national requirements, and which shall be signed by the accountable executive of the organization. The safety policy shall reflect organizational commitments regarding safety; include a clear statement about the provision of the necessary human and financial resources for its implementation; and be communicated, with visible endorsement, throughout the organization. The safety policy shall be periodically reviewed to ensure it remains relevant and appropriate to the organization.

1.2 Safety accountabilities of managers

The approved training organization shall identify the accountable executive who, irrespective of other functions, shall have ultimate responsibility and accountability, on behalf of the approved training organization, for the implementation and maintenance of the SMS. The approved training organization shall also identify the safety accountabilities of all members of senior management, irrespective of other functions. Safety accountabilities and authorities shall be documented and communicated throughout the organization.

1.3 Appointment of key safety personnel

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

1.4 SMS implementation plan

The approved training organization shall develop and maintain an SMS implementation plan that defines the organization's approach to manage safety in a manner that meets the organization's safety needs. The SMS implementation plan of the approved training organization shall explicitly address the coordination between the SMS of the approved training organization and the SMS of other organizations the approved training organization must interface with during the provision of services. The SMS implementation plan shall be endorsed by senior management of the organization.

1.5 Coordination of emergency response planning

The approved training organization shall develop, coordinate and maintain an emergency response plan that ensures orderly and efficient transition from normal to emergency operations, and return to normal operations.

1.6 Documentation

The approved training organization shall develop and maintain SMS documentation to describe the safety policy and objectives, the SMS requirements, the SMS procedures and processes, the accountabilities, responsibilities and authorities for procedures and processes, and the SMS outputs. As part of the SMS documentation, the approved training organization shall develop and maintain a safety management manual (SMM), to communicate its approach to safety throughout the organization.

2. Safety risk management

2.1 Hazard identification process

The approved training organization shall develop and maintain a formal process for effectively collecting, recording, acting on and generating feedback about hazards in operations, based on a combination of reactive, proactive and predictive methods of safety data collection.

2.2 Risk assessment and mitigation process

The approved training organization shall develop and maintain a formal risk management process that ensures analysis (in terms of probability and severity of occurrence), assessment (in terms of tolerability) and control (in terms of mitigation) of risks to an acceptable level. The approved training organization shall also define those levels of management with authority to make decisions regarding safety risks tolerability.

3. Safety assurance

3.1 Safety performance monitoring and measurement

The approved training organization shall develop and maintain the means to verify the safety performance of the organization compared to the safety policy and objectives, and to validate the effectiveness of safety risks controls. The safety reporting procedures related to safety performance and monitoring shall clearly indicate which types of operational behaviours are acceptable or unacceptable, and include the conditions under which immunity from disciplinary action would be considered.

3.2 The management of change

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

3.3 Continuous improvement of the SMS

The approved training organization shall develop and maintain a formal process to identify the causes of sub-standard performance of the SMS, determine the implications of sub-standard performance in operations, and eliminate such causes.

4. Safety promotion

4.1 Training and education

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

4.2 Safety communication

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

End of new text.

**PROPOSED AMENDMENT TO
INTERNATIONAL STANDARDS
AND RECOMMENDED PRACTICES**

OPERATION OF AIRCRAFT

**ANNEX 6
TO THE CONVENTION ON INTERNATIONAL CIVIL AVIATION**

NOTES ON THE PRESENTATION OF THE PROPOSED AMENDMENT

The text of the amendment is arranged to show deleted text with a line through it and new text highlighted with grey shading, as shown below:

1. ~~Text to be deleted is shown with a line through it.~~ text to be deleted
2. **New text to be inserted is highlighted with grey shading.** new text to be inserted
3. ~~Text to be deleted is shown with a line through it~~ followed by the replacement text which is highlighted with grey shading. new text to replace existing text

PART I – INTERNATIONAL COMMERCIAL AIR TRANSPORT – AEROPLANES

...

CHAPTER 3. GENERAL

...

3.2 Safety management

3.2.2 The acceptable level(s) of safety to be achieved shall be established by the State(s) State concerned.

Note.— A framework for the implementation and maintenance of a State's safety programme is contained in Attachment F to Annex 11. Guidance on safety programmes is contained in the Safety Management Manual (SMM) (Doc 9859), and the definition of on defining acceptable levels of safety is contained in Attachment E to Annex 11.

...

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

Note.— A framework for the implementation and maintenance of a safety management system is contained in Appendix 6. Guidance on safety management systems is contained in the Safety Management Manual (SMM) (Doc 9859).

...

CHAPTER 8. AEROPLANE MAINTENANCE

...

8.7 Approved maintenance organization

...

8.7.3 Safety management

...

8.7.3.2 The acceptable level(s) of safety to be achieved shall be established by the State(s) State concerned.

Note.— A framework for the implementation and maintenance of a State's safety programme is contained in Attachment F to Annex 11. Guidance on safety programmes and on defining acceptable levels of safety is contained in the Safety Management Manual (SMM) (Doc 9859), and on defining acceptable levels of safety in Attachment E to Annex 11 and in the Safety Management Manual (SMM) (Doc 9859).

...

8.7.3.5 A safety management system shall clearly define lines of safety accountability throughout a maintenance organization, including a direct accountability for safety on the part of senior management.

Note.— A framework for the implementation and maintenance of a safety management system is

contained in Appendix 6. Guidance on safety management systems is contained in the Safety Management Manual (SMM) (Doc 9859).

...

APPENDIX 2. ORGANIZATION AND CONTENTS OF AN OPERATIONS MANUAL

(See Chapter 4, 4.2.2.1)

...

2. Contents

...

2.1.34 Details of the ~~accident prevention and flight safety programme~~ safety management system (SMS) provided in accordance with Chapter 3, 3.2, ~~including a statement of safety policy and the responsibility of personnel.~~

...

Insert new Appendix 6 as follows:

APPENDIX 6. FRAMEWORK FOR SAFETY MANAGEMENT SYSTEMS (SMS)

(See Chapter 3, 3.2.5, and Chapter 8, 8.7.3.5)

Introduction

This appendix introduces a framework for the implementation and maintenance of a safety management system (SMS) by an operator or an approved maintenance organization. The framework consists of four components and thirteen elements, and its implementation shall be commensurate with the size of the organization and the complexity of the services provided. This appendix also includes a brief description of each element of the framework.

1. Safety policy and objectives
 - 1.1 – Management commitment and responsibility
 - 1.2 – Safety accountabilities of managers
 - 1.3 – Appointment of key safety personnel
 - 1.4 – SMS implementation plan
 - 1.5 – Coordination of emergency response planning
 - 1.6 – Documentation
2. Safety risk management
 - 2.1 – Hazard identification process
 - 2.2 – Risk assessment and mitigation process
3. Safety assurance
 - 3.1 – Safety performance monitoring and measurement
 - 3.2 – The management of change
 - 3.3 – Continuous improvement of the SMS

4. Safety promotion

- 4.1 – Training and education
- 4.2 – Safety communication

1. Safety policy and objectives

1.1 Management commitment and responsibility

The operator/approved maintenance organization shall define the organization's safety policy which shall be in accordance with international and national requirements, and which shall be signed by the accountable executive of the organization. The safety policy shall reflect organizational commitments regarding safety; include a clear statement about the provision of the necessary human and financial resources for its implementation; and be communicated, with visible endorsement, throughout the organization. The safety policy shall be periodically reviewed to ensure it remains relevant and appropriate to the organization.

1.2 Safety accountabilities of managers

The operator/approved maintenance organization shall identify the accountable executive who, irrespective of other functions, shall have ultimate responsibility and accountability, on behalf of the operator/approved maintenance organization, for the implementation and maintenance of the SMS. The operator/approved maintenance organization shall also identify the safety accountabilities of all members of senior management, irrespective of other functions. Safety accountabilities and authorities shall be documented and communicated throughout the organization.

1.3 Appointment of key safety personnel

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

1.4 SMS implementation plan

The operator/approved maintenance organization shall develop and maintain an SMS implementation plan that defines the organization's approach to manage safety in a manner that meets the organization's safety needs. The SMS implementation plan of the operator/approved maintenance organization shall explicitly address the coordination between the SMS of the operator/approved maintenance organization and the SMS of other organizations the operator/approved maintenance organization must interface with during the provision of services. The SMS implementation plan shall be endorsed by senior management of the organization.

1.5 Coordination of emergency response planning

The operator/approved maintenance organization shall develop, coordinate and maintain an emergency response plan that ensures orderly and efficient transition from normal to emergency operations, and return to normal operations.

1.6 Documentation

The operator/approved maintenance organization shall develop and maintain SMS documentation to describe the safety policy and objectives, the SMS requirements, the SMS procedures and processes, the accountabilities, responsibilities and authorities for procedures and processes, and the SMS outputs. As part of the SMS documentation, the operator/approved maintenance organization shall develop and maintain a safety management manual (SMM), to communicate its approach to safety throughout the organization.

2. Safety risk management

2.1 Hazard identification process

The operator/approved maintenance organization shall develop and maintain a formal process for effectively collecting, recording, acting on and generating feedback about hazards in operations, based on a combination of reactive, proactive and predictive methods of safety data collection.

2.2 Risk assessment and mitigation process

The operator/approved maintenance organization shall develop and maintain a formal risk management process that ensures analysis (in terms of probability and severity of occurrence), assessment (in terms of tolerability) and control (in terms of mitigation) of risks to an acceptable level. The operator/approved maintenance shall also define those levels of management with authority to make decisions regarding safety risks tolerability.

3. Safety assurance

3.1 Safety performance monitoring and measurement

The operator/approved maintenance organization shall develop and maintain the means to verify the safety performance of the organization compared to the safety policy and objectives, and to validate the effectiveness of safety risks controls. The safety reporting procedures related to safety performance and monitoring shall clearly indicate which types of operational behaviours are acceptable or unacceptable, and include the conditions under which immunity from disciplinary action would be considered.

3.2 The management of change

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

3.3 Continuous improvement of the SMS

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

4. Safety promotion

4.1 Training and education

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

4.2 Safety communication

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

End of new text.

...

PART III – INTERNATIONAL OPERATIONS – HELICOPTERS

...

SECTION II – INTERNATIONAL COMMERCIAL AIR TRANSPORT

...

CHAPTER 1. GENERAL

...

1.1.9—An operator shall establish and maintain an accident prevention and flight safety programme.

— *Note.*— *Guidance on accident prevention is contained in the Accident Prevention Manual (Doc 9422) and in the Preparation of an Operations Manual (Doc 9376).*

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

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

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

1.2 Safety management

...

1.2.2 The acceptable level(s) of safety to be achieved shall be established by the State(s) State concerned.

Note.— *A framework for the implementation and maintenance of a State's safety programme is contained in Attachment F to Annex 11. Guidance on safety programmes is contained in the Safety Management Manual (SMM) (Doc 9859), and the definition of on defining acceptable levels of safety is contained in Attachment E to Annex 11.*

...

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

Note.— *A framework for the implementation and maintenance of a safety management system is contained in Appendix 3. Guidance on safety management systems is contained in the Safety Management Manual (SMM) (Doc 9859).*

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

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

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

Note 1.— Guidance on flight data analysis programmes is contained in the Safety Management Manual (SMM) (Doc 9858).

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

~~1.2.6~~ 1.2.8 An operator shall establish a flight safety documents system, for the use and guidance of operational personnel, as part of its safety management system.

...

CHAPTER 6. HELICOPTER MAINTENANCE

...

6.2 Safety management

6.2.1 States shall establish a safety programme, in order to achieve an acceptable level of safety in helicopter maintenance operations.

6.2.2 The acceptable level(s) of safety to be achieved shall be established by the State concerned.

Note.— A framework for the implementation and maintenance of a State's safety programme is contained in Attachment F to Annex 11. Guidance on safety programmes is contained in the Safety Management Manual (SMM) (Doc 9859), and on defining acceptable levels of safety in Attachment E to Annex 11.

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

- a) identifies safety hazards;
- b) ensures that remedial action necessary to maintain an acceptable level of safety is implemented;
- c) provides for continuous monitoring and regular assessment of the safety level achieved; and
- d) aims to make continuous improvement to the overall level of safety.

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

Note.— A framework for the implementation and maintenance of a safety management system is contained in Appendix 3. Guidance on safety management systems is contained in the Safety Management Manual (SMM) (Doc 9859).

6.2-6.3 Operator's maintenance control manual

Editorial note.— Re-number subsequent paragraphs accordingly.

...

Insert new Appendix 3 as follows:

**APPENDIX 3. FRAMEWORK FOR
SAFETY MANAGEMENT SYSTEMS (SMS)**

(See Section II, Chapter 1, 1.2.5, and Chapter 6, 6.2.4)

Introduction

This appendix introduces a framework for the implementation and maintenance of a safety management system (SMS) by a helicopter operator/approved maintenance organization. The framework consists of four components and thirteen elements, and its implementation shall be commensurate with the size of the organization and the complexity of the services provided. This appendix also includes a brief description of each element of the framework.

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

1. Safety policy and objectives

1.1 Management commitment and responsibility

The helicopter operator/approved maintenance organization shall define the organization's safety policy which shall be in accordance with international and national requirements, and which shall be signed by the accountable executive of the organization. The safety policy shall reflect organizational commitments regarding safety; include a clear statement about the provision of the necessary human and financial resources for its implementation; and be communicated, with visible endorsement, throughout the organization. The safety policy shall be periodically reviewed to ensure it remains relevant and appropriate to the organization.

1.2 Safety accountabilities of managers

The helicopter operator/approved maintenance organization shall identify the accountable executive who, irrespective of other functions, shall have ultimate responsibility and accountability, on behalf of the helicopter operator/approved maintenance organization, for the implementation and maintenance of the SMS. The helicopter operator/approved maintenance organization shall also identify the safety accountabilities of all members of senior management, irrespective of other functions. Safety accountabilities and authorities shall be documented and communicated throughout the organization.

1.3 Appointment of key safety personnel

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

1.4 SMS implementation plan

The helicopter operator/approved maintenance organization shall develop and maintain an SMS implementation plan that defines the organization's approach to manage safety in a manner that meets the organization's safety needs. The SMS implementation plan of the helicopter operator/approved maintenance organization shall explicitly address the coordination between the SMS of the helicopter operator/approved maintenance organization and the SMS of the other organizations the helicopter operator/approved maintenance organization must interface with during the provision of services. The SMS implementation plan shall be endorsed by senior management of the organization.

1.5 Coordination of emergency response planning

The helicopter operator/approved maintenance organization shall develop, maintain and coordinate an emergency response plan that ensures orderly and efficient transition from normal to emergency operations, and return to normal operations.

1.6 Documentation

The helicopter operator/approved maintenance organization shall develop and maintain SMS documentation to describe the safety policy and objectives, the SMS requirements, the SMS procedures and processes, the accountabilities, responsibilities and authorities for procedures and processes, and the

SMS outputs. As part of the SMS documentation, the helicopter operator/approved maintenance organization shall develop and maintain a safety management manual (SMM), to communicate its approach to safety throughout the organization.

2. Safety risk management

2.1 Hazard identification process

The helicopter operator/approved maintenance organization shall develop and maintain a formal process for effectively collecting, recording, acting on and generating feedback about hazards in operations, based on a combination of reactive, proactive and predictive methods of safety data collection.

2.2 Risk assessment and mitigation process

The helicopter operator/approved maintenance organization shall develop and maintain a formal risk management process that ensures analysis (in terms of probability and severity of occurrence), assessment (in terms of tolerability) and control (in terms of mitigation) of risks to an acceptable level. The helicopter operator/approved maintenance organization shall also define those levels of management with authority to make decisions regarding safety risks tolerability.

3. Safety assurance

3.1 Safety performance monitoring and measurement

The helicopter operator/approved maintenance organization shall develop and maintain the means to verify the safety performance of the organization compared to the safety policy and objectives, and to validate the effectiveness of safety risks controls. The safety reporting procedures related to safety performance and monitoring shall clearly indicate which types of operational behaviours are acceptable or unacceptable, and include the conditions under which immunity from disciplinary action would be considered.

3.2 The management of change

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

3.3 Continuous improvement of the SMS

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

4. Safety promotion

4.1 Training and education

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

4.2 Safety communication

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

End of new text.

...

ATTACHMENT H. CONTENTS OF AN OPERATIONS MANUAL

Supplementary to Section II, Chapter 2, 2.2.2.1

...

2. Contents

...

2.1 General

...

2.1.27 Details of the ~~accident prevention and flight safety programme~~ safety management system (SMS) provided in accordance with Section II, Chapter 1, 1.1.9, ~~including a statement of safety policy and the responsibility of personnel.~~

**PROPOSED AMENDMENT TO
INTERNATIONAL STANDARDS
AND RECOMMENDED PRACTICES**

AIRWORTHINESS OF AIRCRAFT

**ANNEX 8
TO THE CONVENTION ON INTERNATIONAL CIVIL AVIATION**

NOTES ON THE PRESENTATION OF THE PROPOSED AMENDMENT

The text of the amendment is arranged to show deleted text with a line through it and new text highlighted with grey shading, as shown below:

1. ~~Text to be deleted is shown with a line through it.~~ text to be deleted
2. **New text to be inserted is highlighted with grey shading.** new text to be inserted
3. ~~Text to be deleted is shown with a line through it~~ followed by the replacement text which is highlighted with grey shading. new text to replace existing text

PART I – DEFINITIONS

...

Safety management system. *A systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures.*

Safety programme. *An integrated set of regulations and activities aimed at improving safety.*

...

PART II. PROCEDURES FOR CERTIFICATION AND CONTINUING AIRWORTHINESS

...

Insert new Chapter 5 as follows:

CHAPTER 5. SAFETY MANAGEMENT

5.1 States shall establish a safety programme, in order to achieve an acceptable level of safety in the certification and continuing airworthiness of aircraft.

5.2 The acceptable level(s) of safety to be achieved shall be established by the State concerned.

Note.— A framework for the implementation and maintenance of a State’s safety programme is contained in Attachment F to Annex 11. Guidance on safety programmes is contained in the Safety Management Manual (SMM) (Doc 9859), and on defining acceptable levels of safety in Attachment E to Annex 11.

5.3 States shall require, as part of their safety programme, that an organization responsible for the type design or final assembly of an aircraft implement a safety management system acceptable to the State concerned that, as a minimum:

- a) identifies safety hazards;
- b) ensures that remedial action necessary to maintain an acceptable level of safety is implemented;
- c) provides for continuous monitoring and regular assessment of the safety level achieved; and
- d) aims to make continuous improvement to the overall level of safety.

5.4 A safety management system shall clearly define lines of safety accountability throughout the type design or final assembly organization, including a direct accountability for safety on the part of senior management.

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

End of new text.

...

Insert new Appendix as follows:

**APPENDIX – FRAMEWORK FOR
SAFETY MANAGEMENT SYSTEMS (SMS)**

(See Part II, Chapter 5, 5.4)

Introduction

This appendix introduces a framework for the implementation and maintenance of a safety management system (SMS) by an organization responsible for the type design or final assembly of an aircraft. The framework consists of four components and thirteen elements, and its implementation shall be commensurate with the size of the organization and the complexity of the services provided. This appendix also includes a brief description of each element of the framework.

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

1. Safety policy and objectives

1.1 Management commitment and responsibility

The organization responsible for the type design or final assembly of aircraft shall define the organization's safety policy which shall be in accordance with international and national requirements, and which shall be signed by the accountable executive of the organization. The safety policy shall reflect organizational commitments regarding safety; include a clear statement about the provision of the necessary human and financial resources for its implementation; and be communicated, with visible endorsement, throughout the organization. The safety policy shall be periodically reviewed to ensure it

remains relevant and appropriate to the organization.

1.2 Safety accountabilities of managers

The organization responsible for the type design or final assembly of aircraft shall identify an accountable executive who, irrespective of other functions, shall have ultimate responsibility and accountability, on behalf of the organization responsible for the type design or final assembly of aircraft, for the implementation and maintenance of the SMS. The organization responsible for the type design or final assembly of aircraft shall also identify the safety accountabilities of all members of senior management, irrespective of other functions. Safety accountabilities and authorities shall be documented and communicated throughout the organization.

1.3 Appointment of key safety personnel

The organization responsible for the type design or final assembly of aircraft shall identify a safety manager to be the responsible individual and focal point for the implementation and maintenance of an effective SMS.

1.4 SMS implementation plan

The organization responsible for the type design or final assembly of aircraft shall develop and maintain an SMS implementation plan that defines the organization's approach to manage safety in a manner that meets the organization's safety needs. The SMS implementation plan of the organization responsible for the type design or final assembly of aircraft shall explicitly address the coordination of the SMS of the organization responsible for the type design or final assembly of aircraft and the SMS of other organizations the organization responsible for the type design or final assembly of aircraft must interface with during the provision of services. The SMS implementation plan shall be endorsed by senior management of the organization.

1.5 Coordination of emergency response planning

The organization responsible for the type design or final assembly of aircraft shall develop, coordinate and maintain an emergency response plan that ensures orderly and efficient transition from normal to emergency operations, and return to normal operations.

1.6 Documentation

The organization responsible for the type design or final assembly of aircraft shall develop and maintain SMS documentation to describe the safety policy and objectives, the SMS requirements, the SMS procedures and processes, the accountabilities, responsibilities and authorities for procedures and processes, and the SMS outputs. As part of the SMS documentation, the organization responsible for the type design or final assembly of aircraft shall develop and maintain a safety management manual (SMM), to communicate its approach to safety throughout the organization.

2. Safety risk management

2.1 Hazard identification process

The organization responsible for the type design or final assembly of aircraft shall develop and maintain a formal process for effectively collecting, recording, acting on and generating feedback about hazards in operations, based on a combination of reactive, proactive and predictive methods of safety data collection.

2.2 Risk assessment and mitigation process

The organization responsible for the type design or final assembly of aircraft shall develop and maintain a formal risk management process that ensures analysis (in terms of probability and severity of occurrence), assessment (in terms of tolerability) and control (in terms of mitigation) of risks to an acceptable level. The organization responsible for the type design or final assembly of aircraft shall also define those levels of management with authority to make decisions regarding safety risks tolerability.

3. Safety assurance

3.1 Safety performance monitoring and measurement

The organization responsible for the type design or final assembly of aircraft shall develop and maintain the means to verify the safety performance of the organization compared to the safety policy and objectives, and to validate the effectiveness of safety risks controls. The safety reporting procedures related to safety performance and monitoring shall clearly indicate which types of operational behaviours are acceptable or unacceptable, and include the conditions under which immunity from disciplinary action would be considered.

3.2 The management of change

The organization responsible for the type design or final assembly of aircraft shall develop and maintain a formal process to identify changes within the organization which may affect established processes and services; to describe the arrangements to ensure safety performance before implementing changes; and to eliminate or modify safety risk controls that are no longer needed or effective due to changes in the operational environment.

3.3 Continuous improvement of the SMS

The organization responsible for the type design or final assembly of aircraft shall develop and maintain a formal process to identify the causes of sub-standard performance of the SMS, determine the implications of sub-standard performance in operations, and eliminate such causes.

4. Safety promotion

4.1 Training and education

The organization responsible for the type design or final assembly of aircraft shall develop and maintain a safety training programme that ensures that personnel are trained and competent to perform the SMS duties. The scope of the safety training shall be appropriate to each individual's involvement in the SMS.

4.2 Safety communication

The organization responsible for the type design or final assembly of aircraft shall develop and maintain formal means for safety communication, that ensures that all personnel are fully aware of the SMS; conveys safety critical information; and explains why particular safety actions are taken and why safety procedures are introduced or changed.

End of new text.

**PROPOSED AMENDMENT TO
INTERNATIONAL STANDARDS
AND RECOMMENDED PRACTICES**

AIR TRAFFIC SERVICES

**ANNEX 11
TO THE CONVENTION ON INTERNATIONAL CIVIL AVIATION**

NOTES ON THE PRESENTATION OF THE PROPOSED AMENDMENT

The text of the amendment is arranged to show deleted text with a line through it and new text highlighted with grey shading, as shown below:

1. ~~Text to be deleted is shown with a line through it.~~ text to be deleted
2. **New text to be inserted is highlighted with grey shading.** new text to be inserted
3. ~~Text to be deleted is shown with a line through it~~ followed by the replacement text which is highlighted with grey shading. new text to replace existing text

CHAPTER 2. GENERAL

...

2.27 Safety management

...

2.27.2 The acceptable level(s) of safety to be achieved shall be established by the State(s) State concerned.

Note.— A framework for the implementation and maintenance of a State’s safety programme is contained in Attachment F. Guidance on safety programmes and on defining acceptable levels of safety is contained in Attachment E and the Safety Management Manual (SMM) (Doc 9859), and on defining acceptable levels of safety in Attachment E.

...

2.27.4 A safety management system shall clearly define lines of safety accountability throughout the air traffic services provider, including a direct accountability for safety on the part of senior management.

Note 1.— A framework for the implementation and maintenance of a safety management system is contained in Appendix 6. Guidance on safety management systems is contained in the Safety Management Manual (SMM) (Doc 9859), and associated procedures are contained in the PANS-ATM (Doc 4444).

Note 2.— The provision of AIS, CNS, MET, and/or SAR services, when under the authority of an ATS provider, are subject to the requirements of paragraphs 2.27.3 and 2.27.4. When the provision of AIS, CNS, MET, and/or SAR services are wholly or partially provided by an entity other than an ATS provider, the requirements under 2.27.3 and 2.27.4 relate to the services that come under the authority of the ATS provider, or those aspects of the services with direct operational implications.

...

Insert new Appendix 6 as follows:

**APPENDIX 6. FRAMEWORK FOR
SAFETY MANAGEMENT SYSTEMS (SMS)**

(See Chapter 2, 2.27.4)

Introduction

This appendix introduces a framework for the implementation and maintenance of a safety management system (SMS) by an air traffic services provider. The framework consists of four components and thirteen elements, and its implementation shall be commensurate with the size of the organization and the complexity of the services provided. This appendix also includes a brief description of each element of the framework.

1. Safety policy and objectives

- 1.1 – Management commitment and responsibility
- 1.2 – Safety accountabilities of managers
- 1.3 – Appointment of key safety personnel
- 1.4 – SMS implementation plan
- 1.5 – Coordination of emergency response planning
- 1.6 – Documentation

2. Safety risk management
 - 2.1 – Hazard identification process
 - 2.2 – Risk assessment and mitigation process
3. Safety assurance
 - 3.1 – Safety performance monitoring and measurement
 - 3.2 – The management of change
 - 3.3 – Continuous improvement of the SMS
4. Safety promotion
 - 4.1 – Training and education
 - 4.2 – Safety communication

1. Safety policy and objectives

1.1 Management commitment and responsibility

The air traffic services provider shall define the organization's safety policy and which shall be in accordance with international and national requirements, and which shall be signed by the accountable executive of the organization. The safety policy shall reflect organizational commitments regarding safety; include a clear statement about the provision of the necessary human and financial resources for its implementation; and be communicated, with visible endorsement, throughout the organization. The safety policy shall be periodically reviewed to ensure it remains relevant and appropriate to the organization.

1.2 Safety accountabilities of managers

The air traffic services provider shall identify an accountable executive who, irrespective of other functions, shall have ultimate responsibility and accountability, on behalf of the air traffic services provider, for the implementation and maintenance of the SMS. The air traffic services provider shall also identify the safety accountabilities of all members of senior management, irrespective of other functions. Safety accountabilities and authorities shall be documented and communicated throughout the organization.

1.3 Appointment of key safety personnel

The air traffic services provider shall identify a safety manager to be the responsible individual and focal point for the implementation and maintenance of an effective SMS.

1.4 SMS implementation plan

The air traffic services provider shall develop and maintain an SMS implementation plan that defines the organization's approach to manage safety in a manner that meets the organization's safety needs. The implementation plan of the air traffic services provider shall explicitly address the coordination between the SMS of the air traffic services provider and the SMS of other organizations the air traffic services provider must interface with during the provision of services. The SMS implementation plan shall be endorsed by senior management of the organization.

1.5 Coordination of emergency response planning

The air traffic services provider shall develop, coordinate and maintain a contingency plan that ensures orderly and efficient transition from normal to emergency operations, and return to normal operations.

1.6 Documentation

The air traffic services provider shall develop and maintain SMS documentation to describe the safety policy and objectives, the SMS requirements, the SMS procedures and processes, the accountabilities, responsibilities and authorities for procedures and processes, and the SMS outputs. As part of the SMS documentation, the air traffic services provider shall develop and maintain a safety management manual (SMM), to communicate its approach to safety throughout the organization.

2. Safety risk management

2.1 Hazard identification process

The air traffic services provider shall develop and maintain a formal process for effectively collecting, recording, acting on and generating feedback about hazards in operations, based on a combination of reactive, proactive and predictive methods of safety data collection.

2.2 Risk assessment and mitigation process

The air traffic services provider shall develop and maintain a formal risk management process that ensures analysis (in terms of probability and severity of occurrence), assessment (in terms of tolerability) and control (in terms of mitigation) of risks to an acceptable level. The air traffic services provider shall also define those levels of management with authority to make decisions regarding safety risks tolerability.

3. Safety assurance

3.1 Safety performance monitoring and measurement

The air traffic services provider shall develop and maintain the means to verify the safety performance of the organization compared to the safety policy and objectives, and to validate the effectiveness of safety risks controls. The safety reporting procedures related to safety performance and monitoring shall clearly indicate which types of operational behaviours are acceptable or unacceptable, and include the conditions

under which immunity from disciplinary action would be considered.

3.2 The management of change

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

3.3 Continuous improvement of the SMS

The air traffic services provider shall develop and maintain a formal process to identify the causes of sub-standard performance of the SMS, determine the implications of sub-standard performance in operations, and eliminate such causes.

4. Safety promotion

4.1 Training and education

The air traffic services provider shall develop and maintain a safety training programme that ensures that personnel are trained and competent to perform the SMS duties. The scope of the safety training shall be appropriate to each individual's involvement in the SMS.

4.2 Safety communication

The air traffic services provider shall develop and maintain formal means for safety communication, that ensures that all personnel are fully aware of the SMS; conveys safety critical information; and explains why particular safety actions are taken and why safety procedures are introduced or changed.

End of new text.

...

Insert new Attachment F as follows:

ATTACHMENT F. FRAMEWORK FOR THE STATE'S SAFETY PROGRAMME

Introduction

This attachment introduces a framework for the implementation and maintenance of a State's safety programme by a State. The framework consists of four components and ten elements, outlined hereunder. A brief description of each element is presented.

1. State's safety policy and objectives

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

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

1. State's safety policy and objectives

1.1 CAA safety Standards

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

1.2 CAA safety responsibilities and accountabilities

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

1.3 Accident and incident investigation

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

1.4 Enforcement policy

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

2. State's safety risk management

2.1 Safety requirements for service providers SMS

The CAA has established the controls which govern how service providers will identify operational hazards and manage safety risks. This includes the requirements, specific operating regulations and implementation policies for service providers' SMS. The requirements and specific operating regulations are periodically reviewed to ensure they remain relevant and appropriate to the service providers.

2.2 Approval of service providers acceptable levels of safety

The CAA has agreed on, and approved, acceptable levels of safety with individual service providers. These acceptable levels of safety are commensurate to the complexity of individual service provider's specific operational contexts and the availability of individual service provider's resources to address safety risks. The agreed acceptable levels of safety are expressed by multiple safety performance indicators and safety performance targets, never by a single one, as well as by safety requirements. The agreed acceptable levels of safety are periodically reviewed to ensure they remain relevant and appropriate to the service providers.

3. State's safety assurance

3.1 Safety oversight

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

3.2 Safety data collection, analysis and exchange

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

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

The CAA has established procedures to prioritize inspections, audits and surveys towards those areas of greater safety concern or need, as identified by the analysis of data on operational hazards and safety risks areas.

4. State's safety promotion

4.1 Internal training, communication and dissemination of safety information

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

4.2 External training, communication and dissemination of safety information

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

End of new text.

**PROPOSED AMENDMENT TO
INTERNATIONAL STANDARDS
AND RECOMMENDED PRACTICES**

AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATION

**ANNEX 13
TO THE CONVENTION ON INTERNATIONAL CIVIL AVIATION**

NOTES ON THE PRESENTATION OF THE PROPOSED AMENDMENT

The text of the amendment is arranged to show deleted text with a line through it and new text highlighted with grey shading, as shown below:

1. ~~Text to be deleted is shown with a line through it.~~ text to be deleted
2. **New text to be inserted is highlighted with grey shading.** new text to be inserted
3. ~~Text to be deleted is shown with a line through it~~ followed by the replacement text which is highlighted with grey shading. new text to replace existing text

CHAPTER 1. DEFINITIONS

...

Safety programme. An integrated set of regulations and activities aimed at improving safety.

...

CHAPTER 3. GENERAL

...

STATE'S SAFETY PROGRAMME

3.2 States shall establish a safety programme, in order to achieve an acceptable level of safety.

3.3 The acceptable level(s) of safety to be achieved shall be established by the State concerned.

Note.— A framework for the implementation and maintenance of a State's safety programme is contained in Attachment F to Annex 11. Guidance on safety programmes is contained in the Safety Management Manual (SMM) (Doc 9859), and on defining acceptable levels of safety in Attachment E to Annex 11.

Editorial note.— Renumber subsequent paragraphs accordingly.

...

CHAPTER 8. ACCIDENT PREVENTION MEASURES

...

Incident reporting systems

8.1 A State shall establish, as part of its safety programme, a mandatory incident reporting system to facilitate collection of information on actual or potential safety deficiencies.

8.2 **Recommendation.**— ~~A State should establish a voluntary incident reporting system to facilitate the collection of information that may not be captured by a mandatory incident reporting system.~~ A State shall establish, as part of its safety programme, a voluntary incident reporting system to facilitate collection of information on actual or potential safety deficiencies that may not be captured by the mandatory incident reporting system.

Note.— States are encouraged to establish other safety data collection and processing systems to collect safety information that may not be captured by the incident reporting systems mentioned in 8.1 and 8.2 above.

8.3 A voluntary incident reporting system shall be non-punitive and afford protection to the sources of the information.

...

Database systems and analysis — Preventive actions

8.4 **Recommendation.**— ~~A State should establish an accident and incident database to facilitate the effective analysis of information obtained, including that from its incident reporting systems.~~ A State shall establish, as part of its safety programme, an accident and incident database to facilitate the effective analysis of information on actual or potential safety deficiencies obtained and therein contained, including that from its incident reporting systems, and to determine any preventive actions required.

...

Analysis of data — Preventive actions

~~— 8.6 A State having established an accident and incident database and an incident reporting system shall analyse the information contained in its accident/incident reports and the database to determine any preventive actions required.~~

Note 3.— Additional information on which to base preventive actions may be contained in the Final Reports on investigated accidents and incidents.

8.6 **Recommendation.**— A State should, following the identification of preventive actions required to address actual or potential safety deficiencies, and as part of its safety programme, implement these actions and establish a process to monitor implementation and effectiveness of the responses.

...

Exchange of safety information

8.9 **Recommendation.**— States should promote, as part of its safety programmes, the establishment of safety information sharing networks among all users of the aviation system and should facilitate the free exchange of information on actual and potential safety deficiencies.

**PROPOSED AMENDMENT TO
INTERNATIONAL STANDARDS
AND RECOMMENDED PRACTICES**

AERODROMES

**ANNEX 14
TO THE CONVENTION ON INTERNATIONAL CIVIL AVIATION**

**VOLUME I
AERODROME DESIGN AND OPERATIONS**

NOTES ON THE PRESENTATION OF THE PROPOSED AMENDMENT

The text of the amendment is arranged to show deleted text with a line through it and new text highlighted with grey shading, as shown below:

1. ~~Text to be deleted is shown with a line through it.~~ text to be deleted
2. **New text to be inserted is highlighted with grey shading.** new text to be inserted
3. ~~Text to be deleted is shown with a line through it~~ followed by the **replacement text which is highlighted with grey shading.** new text to replace existing text

CHAPTER 1. GENERAL

...

1.5 Safety management

...

1.5.2 The acceptable level(s) of safety to be achieved shall be established by the State(s) State concerned.

Note.— A framework for the implementation and maintenance of a State's safety programme is contained in Attachment F to Annex 11. Guidance on safety programmes and on defining acceptable levels of safety is contained in Attachment E to Annex 11 and in the Safety Management Manual (SMM) (Doc 9859), and on defining acceptable levels of safety in Attachment E to Annex 11.

1.5.3 States shall require, as part of their safety programme, that a certified aerodrome operator implements a safety management system acceptable to the State that, as a minimum:

...

1.5.4 A safety management system shall clearly define lines of safety accountability throughout a certified aerodrome operator, including a direct accountability for safety on the part of senior management.

Note.— A framework for the implementation and maintenance of a safety management system is contained in Appendix 7. Guidance on safety management systems is contained in the Safety Management Manual (SMM) (Doc 9859), and in the Manual on Certification of Aerodromes (Doc 9774).

...

Insert new Appendix as follows:

APPENDIX 7. FRAMEWORK FOR SAFETY MANAGEMENT SYSTEMS (SMS)

(See Chapter 1, 1.5.4)

Introduction

This appendix introduces a framework for the implementation and maintenance of a safety management system (SMS) by a certified aerodrome. The framework consists of four components and thirteen elements, and its implementation shall be commensurate with the size of the organization and the complexity of the services provided. This appendix also includes a brief description of each element of the framework.

1. Safety policy and objectives

- 1.1 – Management commitment and responsibility
- 1.2 – Safety accountabilities of managers
- 1.3 – Appointment of key safety personnel
- 1.4 – SMS implementation plan
- 1.5 – Coordination of emergency response planning
- 1.6 – Documentation

2. Safety risk management
 - 2.1 – Hazard identification process
 - 2.2 – Risk assessment and mitigation process
3. Safety assurance
 - 3.1 – Safety performance monitoring and measurement
 - 3.2 – The management of change
 - 3.3 – Continuous improvement of the SMS
4. Safety promotion
 - 4.1 – Training and education
 - 4.2 – Safety communication

1. Safety policy and objectives

1.1 Management commitment and responsibility

The certified aerodrome shall define the organization's safety policy which shall be in accordance with international and national requirements, and which shall be signed by the accountable executive of the organization. The safety policy shall reflect organizational commitments regarding safety; include a clear statement about the provision of the necessary human and financial resources for its implementation; and be communicated, with visible endorsement, throughout the organization. The safety policy shall be periodically reviewed to ensure it remains relevant and appropriate to the organization.

1.2 Safety accountabilities of managers

The certified aerodrome shall identify an accountable executive who, irrespective of other functions, shall have ultimate responsibility and accountability, on behalf of the aerodrome, for the implementation and maintenance of the SMS. The certified aerodrome shall also identify the safety accountabilities of all members of senior management, irrespective of other functions. Safety accountabilities and authorities shall be documented and communicated throughout the organization.

1.3 Appointment of key safety personnel

The certified aerodrome shall identify a safety manager to be the responsible individual and focal point for the implementation and maintenance of an effective SMS.

1.4 SMS implementation plan

The certified aerodrome shall develop and maintain an SMS implementation plan that defines the organization's approach to manage safety in a manner that meets the organization's safety needs. The SMS implementation plan of a certified aerodrome shall explicitly address the coordination of the SMS of the certified aerodrome and the SMS of other organizations the certified aerodrome must interface with

during the provision of services. The SMS implementation plan shall be endorsed by senior management of the organization.

1.5 Coordination of emergency response planning

The certified aerodrome shall develop, coordinate and maintain an emergency response plan that ensures orderly and efficient transition from normal to emergency operations, and return to normal operations.

1.6 Documentation

The certified aerodrome shall develop and maintain SMS documentation to describe the safety policy and objectives, the SMS requirements, the SMS procedures and processes, the accountabilities, responsibilities and authorities for procedures and processes, and the SMS outputs. As part of the SMS documentation, the certified aerodrome shall develop and maintain a safety management manual (SMM), to communicate its approach to safety throughout the organization.

2. Safety risk management

2.1 Hazard identification process

The certified aerodrome shall develop and maintain a formal process for effectively collecting, recording, acting on and generating feedback about hazards in operations, based on a combination of reactive, proactive and predictive methods of safety data collection.

2.2 Risk assessment and mitigation process

The certified aerodrome shall develop and maintain a formal risk management process that ensures analysis (in terms of probability and severity of occurrence), assessment (in terms of tolerability) and control (in terms of mitigation) of risks to an acceptable level. The certified aerodrome shall also define those levels of management with authority to make decisions regarding safety risks tolerability.

3. Safety assurance

3.1 Safety performance monitoring and measurement

The certified aerodrome shall develop and maintain the means to verify the safety performance of the organization compared to the safety policy and objectives, and to validate the effectiveness of safety risks controls. The safety reporting procedures related to safety performance and monitoring shall clearly indicate which types of operational behaviours are acceptable or unacceptable, and include the conditions under which immunity from disciplinary action would be considered.

3.2 The management of change

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

3.3 Continuous improvement of the SMS

The certified aerodrome shall develop and maintain a formal process to identify the causes of sub-standard performance of the SMS, determine the implications of sub-standard performance in operations, and eliminate such causes.

4. Safety promotion

4.1 Training and education

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

4.2 Safety communication

The certified aerodrome shall develop and maintain formal means for safety communication, that ensures that all personnel are fully aware of the SMS; conveys safety critical information; and explains why particular safety actions are taken and why safety procedures are introduced or changed.

End of new text.

— — — — —

ATTACHMENT G to State letter AN 12/51-07/74

**RESPONSE FORM TO BE COMPLETED AND RETURNED TO ICAO TOGETHER
WITH ANY COMMENTS YOU MAY HAVE ON THE PROPOSED AMENDMENTS**

To: The Secretary General
International Civil Aviation Organization 999 University Street
Montreal, Quebec
Canada, H3C 5H7

(State) _____

Please make a checkmark (✓) against one option for each amendment. If you choose options “agreement with comments” or “disagreement with comments”, **please provide your comments on separate sheets.**

	<i>Agreement without comments</i>	<i>Agreement with comments*</i>	<i>Disagreement without comments</i>	<i>Disagreement with comments</i>	<i>No position</i>
Amendment to Annex 1 — <i>Personnel Licensing</i> (Attachment A refers)					
Amendment to Annex 6 — <i>Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes and Part III — International Operations — Helicopters</i> (Attachment B refers)					
Amendment to Annex 8 — <i>Airworthiness of Aircraft</i> (Attachment C refers)					
Amendment to Annex 11 — <i>Air Traffic Services</i> (Attachment D refers)					
Amendment to Annex 13 — <i>Aircraft Accident and Incident Investigation</i> (Attachment E refers)					
Amendment to Annex 14 — <i>Aerodromes, Volume I — Aerodrome Design and Operations</i> (Attachment F refers)					

*“Agreement with comments” indicates that your State or organization agrees with the intent and overall thrust of the amendment proposal; the comments themselves may include, as necessary, your reservations concerning certain parts of the proposal and/or offer an alternative proposal in this regard.

Signature: _____ Date: _____

— END —