



International Civil Aviation Organization
Western and Central African Office

**Eleventh Meeting of the Air Traffic Services/Aeronautical Information
Service/Search and Rescue Sub-Group (ATS/AIS/SAR SG/11)
(Nairobi, Kenya, 26 - 30 April 2010)**

Agenda Item: 7 ATS Safety Management Systems

Safety Management in ATS

(Presented by the Secretariat)

SUMMARY

This paper recalls the key issues in safety management, highlights the provisions of Annex 11 relating to safety management, as well the outcome of the 36th Session of the Assembly and the Special AFI RAN Meeting, 2008 with regard to safety management.

Action by the meeting is at paragraph 3.

REFERENCES

Annex 11 to the Chicago Convention

36th Assembly Session Resolutions (Doc)

Global Aviation Safety Plan (GASP)

Special AFI RAN Meeting report

This Working Paper is related to Strategic Objectives: A

1. INTRODUCTION

1.1 The ICAO provisions for Safety Management Programmes in ATS first became applicable in November 2005 in accordance with Amendment 43 to Annex 11. In March 2006, the ICAO Council adopted harmonized safety management provisions in Annexes 6, 11 and 14 requiring States to establish a safety programme and, as a part of such a programme, require aerodrome operators, air traffic services providers and air operators to implement a Safety Management System (SMS) acceptable to the Authority. The harmonized provisions, which in ATS were contained in Amendment 44 to Annex 11, became applicable as of 23 November 2006 for national authorities, aerodromes operators and air traffic services providers and as of 1 January 2009 for air operators. The requirements also obligate States, with the responsibility to establish an acceptable level of safety for the activities/provision of services.

1.2 On 2 March 2009, the 186th Session of the ICAO Council adopted Amendment 47 to Annex 11, which arose from, inter alia, a continuing effort toward harmonization of safety management provisions. Provisions of Amendment 47 that relate to safety management, identified in the Annex as Amendment 47B, are applicable as of 18 November 2010. States that will not have complied with these provisions on the date that they become applicable are obliged under Article 38 of the Chicago Convention to file a notification of difference.

1.3 The APIRG 15 meeting in Nairobi, Kenya, 26 – 30 September 2005 formulated Conclusion 15/32: *ATS Safety Management*, urging States that had not done so to implement a systematic and appropriate ATS Safety Management Programme to ensure that safety is maintained in the provision of ATS within airspaces and at aerodromes.

1.4 The SP AFI RAN Meeting in Durban, South Africa 2008 noted that the African Comprehensive Implementation Programme (ACIP) Steering Committee had, inter alia, given ACIP the direction relating to enhancing aviation safety culture of African aviation service providers, under which a number of goals including assistance and training were to be achieved.

2. DISCUSSION

2.1 The meeting may wish to recall the outcome of the 36th Session of the ICAO Assembly with regard to enhancement of civil aviation safety, in particular Resolution A36-7: *ICAO Global Planning for Safety and Efficiency* (superseding A33-16), Appendix A: *Global Aviation Safety Plan* and Appendix W: *The Provision of Air Traffic Services*. Resolution A36-7 also addresses the concept of “just culture.” Excerpts of Appendixes A and W are reflected hereunder.

Appendix A – Global Aviation Safety Plan - Resolving clauses 4 and 5:

4. Urges Contracting States to reinforce the global aviation safety framework by:

- (a) sharing appropriate safety-related information among States, all other aviation stakeholders and the public;
- (b) expeditiously implementing safety management systems across the aviation industry to complement the existing regulatory framework;
- (c) promoting a just culture by creating an environment in which the reporting and sharing of information is encouraged and facilitated and in which remedial action is undertaken in a timely fashion when deficiencies are reported; and
- (d) reporting accident and incident data as required to ICAO;

5. Urges States to fully exercise safety oversight of their operators in full compliance with applicable Standards and Recommended Practices (SARPs), and assure themselves that foreign operators flying in their territory receive adequate oversight from their own State and take appropriate action when necessary to preserve safety;

APPENDIX W – The provision of air traffic services Resolving Clause 3

States should ensure that safety management programmes are introduced by the relevant air traffic services provider in all airspaces and at all aerodromes where air traffic services are provided.

2.2 Furthermore, the Assembly adopted Resolution A36-8: *Non-disclosure of certain accident and incident records* to supersede Resolution A33-17, Resolution A36-9: *Protecting information from safety data collection and processing systems in order to improve aviation safety*, to supersede Resolution A35-17, and Resolution A36-10: *Improving accident prevention in civil aviation* to supersede Resolution A31-10.

2.3 Annex 11 Section 2.27 provides that States shall establish a State safety programme, in order to achieve an acceptable level of safety in civil aviation, and that States shall require, as part of their State safety programme, that an air traffic services provider implement a safety management system acceptable to the State that, as a minimum:

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

2.4 In order to assist States in the development of their SSP, a framework for the implementation and maintenance of an SSP is contained in Attachment D of Annex 11, and further guidance on a State safety programme is contained in the Safety Management Manual (SMM) (Doc 9859). An extract of Annex 11 Attachment D is provided in **Appendix A** to this working paper.

2.5 The framework for the implementation and maintenance of a safety management system is contained in Appendix 6 of Annex 11. And detailed guidance on safety management systems is contained in the Doc 9859; associated procedures are contained in the PANS-ATM (Doc 4444). An extract of Annex 11 Appendix 6 is provided at **Appendix B** to this working paper.

2.6 The meeting may wish to recall that while material in the Attachments to an Annex (to the Chicago Convention) is for guidance, material in the Appendixes to a Standard in an Annex constitute part of the standard. Accordingly, Attachment D to Annex 11 is guidance material and Appendix 6 to the Annex is a standard, the non implementation of which should be notified pursuant to Article 38 of the Chicago Convention. Furthermore, the meeting may wish to note that this is part of Amendment 47B to Annex 11, which becomes applicable on 18 November 2010.

2.7 The attention of the meeting is invited to “Note 2” under standard 2.27.4 with regard to fields of air navigation services other than ATS, when such other services are provided under the authority of an ATS provider. The note reads as follows:

The provision of AIS, CNS, MET and/or SAR services, when under the authority of an ATS provider, are subject to the requirements of 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.

(2.27.3 relates to requirement under the SSP to establish and SMS; 2.27.4 clearly defined lines of safety accountability, including a direct accountability for safety on the part of senior management.)

2.8 In order to guide States in their planning for implementation of the provisions of Annex 11 Section 2.27, ICAO has provided in Doc 9859 2nd Edition, a number of tools including a template for conducting a gap analysis, and a phased approach to implementation. It is to be noted that Doc 9859 is a living document that based, inter alia, on global experiences in implementation, is continually improved.

2.9 Successful implementation of the provisions for safety management based on documentation alone is not practical. An essential preparatory and ongoing element of implementing of safety management is training. As such, the ICAO Secretary General, under State Letter Ref.: AN 1146-06152 dated 30 June 2006, announced seven (7) SMS courses to be conducted in each of the seven ICAO Regional Offices’ areas of accreditation. Accordingly, two of the courses were targeted at the AFI Region (ESAF and WACAF areas).

2.10 Recognizing the necessity for further action to ensure that sufficient training opportunities on SMS exist and to meet the intent of Topic 2.2, Recommendation 2/2, of the Directors General of Civil Aviation Conference on a Global Strategy for Aviation Safety, the Secretary General also announced that ICAO would deliver "train-the-trainer" courses on SMS to allow the development of resources in greater numbers than what the regional SMS training courses would allow. The objective of this training was to enable States to become self-sufficient both in SMS implementation as well as in imparting SMS training. It was further envisioned that States developing internal resources will engage in cooperation to assist other States in the implementation of SMS, thus achieving the cooperation recognized as necessary for the global implementation of SMS. The training would be delivered upon specific request from individual States or group of States, and under specific conditions which include the provision of instructors by ICAO and provision by the requesting State (group of States) of travel and living expenses for the instructors.

2.11 The meeting may wish to note with appreciation that most of the envisaged training that would be achieved under the above sharing of costs, has been made available to the AFI States under the ACIP, which enabled the training to be achieved with involvement of much lesser cost to States. The list of ACIP activities to this effect, covering completed and upcoming events is reflected at **Appendix C** to this working paper. Updated information regarding ACIP activities is at <http://www2.icao.int/en/acip/Pages/default.aspx>

2.12 Based on the foregoing, the ATS/AIS/SAR SG/11 may wish to agree on the following Draft Conclusions:

DRAFT CONCLUSION 11/X: IMPLEMENTATION OF SAFETY MANAGEMENT IN THE AFI REGION

That, AFI States are urged to take necessary measures including the development and promulgation of legislative/regularity provisions in order to:

- a) Implement the Safety Management provision of Annex 11;*
- b) prioritise giving effect to A36-8, A36-9 and A36-10 regarding collection and protection of safety information, and improving accident prevention*
- c) take full advantage of the training opportunities availed by ICAO under the ACIP and other programmes*
- d) make use of guidance material provided by ICAO including, the Safety Management Manual (SMM) (Doc 9859) taking into consideration ICAO improvements on such guidance material from time to time;*

(This Draft Conclusion is to supersede APIRG Conclusion 15/32)

DRAFT CONCLUSION 11/X: STATUS OF IMPLEMENTATION OF SAFETY MANAGEMENT PROVISIONS IN THE AFI REGION

That, in order to establish the status of implementation of Annex 11 Safety Management provisions in the AFI Region, and in order to facilitate Regional planning and implementation strategies:

- a) the ESAF and WACAF Regional Offices circulate a questionnaire aimed at collecting information on the status of implementation in the AFI Region; and*
- b) States are urged to cooperate with the efforts of the Regional Office and to respond to the questionnaires with minimum delay.*

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this working paper;
- b) agree on Draft Conclusions 11/XX and 11/YY under paragraph 2.12 of this working paper.

Extract from Annex 11 Attachment D
FRAMEWORK FOR STATE SAFETY PROGRAMME

This attachment introduces a framework for the implementation and maintenance of a State safety programme (SSP) by a State. An SSP is a management system for the management of safety by the State. The framework contemplates four components and eleven elements, outlined hereunder. The implementation of an SSP is commensurate with the size and complexity of the State's aviation system, and may require coordination among multiple authorities responsible for individual elements of civil aviation functions in the State. The SSP framework introduced in this attachment, and the safety management system (SMS) framework specified in Appendix 6, must be viewed as complementary, yet distinct, frameworks. This attachment also includes a brief description of each element of the framework.

1. State safety policy and objectives

- 1.1 State safety legislative framework
- 1.2 State safety responsibilities and accountabilities
- 1.3 Accident and incident investigation
- 1.4 Enforcement policy

2. State safety risk management

- 2.1 Safety requirements for the service provider's SMS
- 2.2 Agreement on the service provider's safety performance

3. State safety assurance

- 3.1 Safety oversight
- 3.2 Safety data collection, analysis and exchange
- 3.3 Safety-data-driven targeting of oversight of areas of greater concern or need

4. State safety promotion

- 4.1 Internal training, communication and dissemination of safety information
- 4.2 External training, communication and dissemination of safety information

**Extract from Annex 11 Appendix 6
FRAMEWORK FOR SAFETY MANAGEMENT SYSTEMS**

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

1. Safety policy and objectives

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

2. Safety risk management

- 2.1 Hazard identification
- 2.2 Safety risk assessment and mitigation

3. Safety assurance

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

4. Safety promotion

- 4.1 Training and education
- 4.2 Safety communication

ACIP SSP/SMS SEMINAR/WORKSHOPS AND TRAINING COURSE ACTIVITIES

Awareness Seminar

- ICAO safety management briefing for senior management of Civil Aviation Authorities, Addis Ababa, 23 September 2008
- ICAO safety management briefing for senior management of Civil Aviation Authorities, Ouagadougou, 14 April 2009
- ICAO State Safety Programme (SSP) and Safety Management Systems (SMS) awareness seminar, Dar-es-Salaam, 17 August 2009

State Safety Programme (SSP)

- ICAO Regional Workshop on State Safety Programme (SSP) Implementation Addis Ababa, 24-26 September 2008
- ICAO State Safety Programme (SSP) Implementation Training Course Ouagadougou, 15-18 April 2009
- ICAO State Safety Programme (SSP) Implementation Training Course Dar-es-Salaam, 18-21 August 2009

Safety Management System (SMS)

- ICAO Safety Management Systems (SMS) Course Addis Ababa, 29 September to 03 October 2008
 - ICAO Safety Management Systems (SMS) Training Course Ouagadougou, 20-24 April 2009
 - ICAO Safety Management Systems (SMS) Training Course Dar-es-Salaam, 24-28 August 2009
2. Follow up meeting of the 1st Pan-African Aviation Training Coordination Conference, Johannesburg, South Africa, 4-5 May 2009
 3. ICAO Safety data technical and end-users training courses, Johannesburg, South Africa, 1-11 September 2009
 4. ICAO Safety data technical and end-users training courses, Libreville, Gabon, 7 - 9 November 2009
 5. Cours de formation de l'OACI sur la gestion technique et l'utilisation des données relatives à la sécurité, Tunis, Tunisie, 19 – 28 mai 2010

UPCOMING TRAINING AS OF APRIL 6, 2010

1. Integrated Safety Management training course (Angola, Guinea Bissau, Mozambique and Sao Tome & Principe), 12 – 23 April 2010, Maputo, Mozambique
2. Cours intégré de Gestion de la Sécurité (Guinée, Mali, Mauritanie et Sénégal), 19 – 30 April, Bamako, Mali
3. Cours intégré de Gestion de la Sécurité (Bénin, Burkina Faso, Côte d'Ivoire, Niger et Togo), 3 – 14 May, Niamey, Niger
4. ICAO Safety data technical and end-users training courses, Lusaka, Zambia, 19 – 28 May 2010 (English Only)
5. Cours de formation de l'OACI sur la gestion technique et l'utilisation des données relatives à la sécurité, Tunis, Tunisie, 19 – 28 mai 2010 (French Only)