



**WORKING PAPER**

**DANGEROUS GOODS PANEL (DGP)**

**TWENTY-FOURTH MEETING**

**Montréal, 28 October to 8 November 2013**

**Agenda Item 1: Development of proposals, if necessary, for amendments to Annex 18 — *The Safe Transport of Dangerous Goods by Air***

**SAFETY MANAGEMENT SYSTEMS**

(Presented by the Secretary)

**SUMMARY**

This working paper proposes an amendment to the compliance chapter in Annex 18 to require States to establish safety programmes for dangerous goods in accordance with Annex 19 — *Safety Management* and to require operators to implement safety management systems (SMS) acceptable to the State of the Operator. The paper also provides extracts of SMS-related Standards contained in other Annexes (Appendix C) as a basis for discussion on whether other SMS Standards should be added to Annex 18.

**Action by the DGP:** The DGP is invited to amend Annex 18 as presented in Appendix A to this working paper. Should the panel agree to the amendment proposed, a consequential amendment to Annex 19, as presented in Appendix B, should also be considered. The panel is also invited to consider SMS Standards which have been added to other Annexes (Appendix C) as a basis for discussion on whether other Standards should be added to Annex 18.

**1. INTRODUCTION**

1.1 During the Air Navigation Commission's (ANC) review of the request to convene DGP/24, the subject of safety management systems (SMS) in relation to dangerous goods was raised. SMS was also raised by the Council during its review of Amendment 11 to Annex 18. This review took place shortly after the Council had adopted new Annex 19 — *Safety Management* to the Convention on International Civil Aviation. A Council representative, referring to the newly-adopted Annex 19, expressed hope that DGP would somehow incorporate a reference to SMS in the amended Standard for inspection systems in paragraph 11.1 of Annex 18.

1.2 Accordingly, a new Standard is proposed for Chapter 11 of Annex 18 which would require States to establish safety programmes for dangerous goods in accordance with Annex 19. A

second Standard for States to require operators to implement SMS acceptable to the State of the Operator is also proposed. Should the panel agree to the amendment proposed, a consequential amendment to Annex 19 should also be considered. This is presented in Appendix B. The panel is also invited to consider SMS Standards which have been added to other Annexes (Appendix C) as a basis for discussion on whether additional SMS-related Standards should be added to Annex 18.

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## APPENDIX A

### PROPOSED AMENDMENT TO CHAPTER 11 OF ANNEX 18

## CHAPTER 1. DEFINITIONS

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Definitions from Annex 19:

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

*State safety programme (SSP)*. An integrated set of regulations and activities aimed at improving safety.

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## CHAPTER 11. COMPLIANCE

### 11.1 Inspection systems

Each Contracting State shall establish inspection, surveillance and enforcement procedures for all entities performing any function prescribed in its regulations for air transport of dangerous goods with a view to achieving compliance with those regulations.

*Note 1.— It is envisaged that these procedures would include provisions for:*

- inspecting dangerous goods consignments prepared, offered, accepted or transported by the entities referred to in paragraph 11.1;
- inspecting the practices of the entities referred to in paragraph 11.1; and
- investigating alleged violations (see 11.3).

*Note 2.— Guidance on dangerous goods inspections and enforcement may be found in the Supplement to the Technical Instructions (Part S-5, Chapter 1 and Part S-7, Chapters 5 and 6).*

### 11.2 Safety management

11.2.1 States shall establish a State safety programme for the transport of dangerous goods in order to achieve an acceptable level of safety in civil aviation in accordance with Annex 19.

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

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**APPENDIX B**

**PROPOSED AMENDMENT TO ANNEX 19**

**CHAPTER 4. SAFETY MANAGEMENT SYSTEM (SMS)**

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**4.1 General**

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4.1.9 The SMS of an organization responsible for the safe transport of dangerous goods by air, in accordance with Annex 18, shall be made acceptable to the State of the Operator.

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## APPENDIX C

### SAFETY MANAGEMENT RELATED EXTRACTS FROM ICAO ANNEXES 1, 6, 8 AND 14

#### ANNEX 1 — *PERSONNEL LICENSING*

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#### CHAPTER 1. DEFINITIONS AND GENERAL RULES CONCERNING LICENCES

1.2.4.2 **Recommendation.**— *From 18 November 2010 States should apply, as part of their State safety programme, basic safety management principles to the medical assessment process of licence holders, that as a minimum include:*

- a) routine 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 safety programme is contained in Attachment C A to Annex 19. Guidance on State 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).*

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#### 1.2.8 Approved training and approved training organization

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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 to this Annex and Appendix 4 and the relevant provisions contained in Annex 19.

*Note 1.*— *Annex 19 includes safety management provisions for an approved training organization that is exposed to safety risks related to aircraft operations during the provision of its services. Further guidance is contained in the Safety Management Manual (SMM) (Doc 9859).*

*Note 2.*— *Guidance on approval of a training organization can be found in the Manual on the Approval of Training Organizations (Doc 9841).*

**ANNEX 6 — OPERATION OF AIRCRAFT**

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**PART I — INTERNATIONAL COMMERCIAL AIR TRANSPORT — AEROPLANES**

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**CHAPTER 3. GENERAL**

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**3.3 Safety management**

*Note.— Annex 19 includes safety management provisions for air operators. Further guidance is contained in the Safety Management Manual (SMM) (Doc 9859).*

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

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

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

**3.3.3** 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 Manual on Flight Data Analysis Programmes (FDAP) (Doc 10000).*

*Note 2.— Legal guidance for the protection of information from safety data collection and processing systems is contained in Attachment B to Annex 19.*

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

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

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**CHAPTER 4. FLIGHT OPERATIONS**

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**4.1 Operating facilities**

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**4.1.4** An operator shall, as part of its safety management system, assess the level of rescue and fire fighting service (RFFS) protection available at any aerodrome intended to be specified in the operational



flight plan in order to ensure that an acceptable level of protection is available for the aeroplane intended to be used.

*Note.— Annex 19 includes safety management provisions for air operators. Further guidance is contained in the Safety Management Manual (SMM) (Doc 9859).*

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**CHAPTER 8. AEROPLANE MAINTENANCE**

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**8.7 Approved maintenance organization**

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8.7.3 Safety management

*Note.— Annex 19 includes safety management provisions for approved maintenance organizations. Further guidance is contained in the Safety Management Manual (SMM) (Doc 9859).*

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**APPENDIX 2. ORGANIZATION AND CONTENTS OF AN OPERATIONS MANUAL**

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**2. Contents**

The operations manual referred to in 1.1 and 1.2 shall contain at the least the following:

2.1 General

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2.1.34 Details of the safety management system (SMS) provided in accordance with Chapters 3 and 4 of Annex 19.

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**APPENDIX 5. SAFETY OVERSIGHT OF AIR OPERATORS**

*(Note.— See Chapter 4, 4.2.1.8)*

*Note 1.— Appendix 1 to Annex 19 contains the general provisions for a State safety oversight system.*

*Note 2.— This Appendix provides additional provisions for the safety oversight of international commercial air transport operators.*

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## **APPENDIX 7. FATIGUE RISK MANAGEMENT SYSTEM REQUIREMENTS**

### **1. FRMS policy and documentation**

#### 1.1 FRMS policy

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*Note.— Effective safety reporting is described in the Safety Management Manual (SMM) (Doc 9859).*

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### **2. Fatigue risk management processes**

#### 2.1 Identification of hazards

*Note.— Legal guidance for the protection of information from safety data collection and processing systems is contained in Attachment B to Annex 19.*

An operator shall develop and maintain three fundamental and documented processes for fatigue hazard identification:

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**ANNEX 8 — AIRWORTHINESS OF AIRCRAFT****PART II. PROCEDURES FOR CERTIFICATION  
AND CONTINUING AIRWORTHINESS**

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**CHAPTER 5. SAFETY MANAGEMENT**

*Note.*— Safety management provisions for organizations responsible for the type design or manufacture of aircraft are included in Annex 19. Further guidance is contained in the Safety Management Manual (SMM) (Doc 9859).

**ANNEX 14 — AERODROMES**

**VOLUME I  
AERODROME DESIGN AND OPERATIONS**

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**1.4 Certification of aerodromes**

1.4.4 As part of the certification process, States shall ensure that an aerodrome manual which will include all pertinent information on the aerodrome site, facilities, services, equipment, operating procedures, organization and management including a safety management system, is submitted by the applicant for approval/acceptance prior to granting the aerodrome certificate.

*Note.— The intent of a safety management system is to have in place an organized and orderly approach in the management of aerodrome safety by the aerodrome operator. Annex 19 contains the safety management provisions applicable to certified aerodromes. Guidance on an aerodrome safety management system is given in the Safety Management Manual (SMM) (Doc 9859) and in the Manual on Certification of Aerodromes (Doc 9774).*

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