

COVER SHEET TO AMENDMENT 103

**INTERNATIONAL STANDARDS
AND RECOMMENDED PRACTICES**

AIRWORTHINESS OF AIRCRAFT

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

ELEVENTH EDITION — JULY 2010

INTERNATIONAL CIVIL AVIATION ORGANIZATION

Checklist of Amendments to Annex 8

	<i>Effective date</i>	<i>Date of applicability</i>
Eleventh Edition (incorporates Amendments 1 to 102)	18 November 2010	24 February 2013
Amendment 103 (adopted by the Council on 13 June 2011) Replacement pages (v), (xxiii) and II-1-1 to II-1-3	30 October 2011	31 December 2014



Transmittal note

Amendment 103

to the

International Standards
and Recommended Practices

AIRWORTHINESS OF AIRCRAFT

(Annex 8 to the Convention on International Civil Aviation)

1. Insert the following replacement pages in Annex 8 (Eleventh Edition) to incorporate Amendment 103 which becomes applicable on 31 December 2014:
 - a) Page (v) — Table of Contents
 - b) Page (xxiii) — Foreword
 - c) Pages II-1-1 to II-1-3 — Part II, Chapter 1
2. Record the entry of this amendment on page (iii).

TABLE OF CONTENTS

	<i>Page</i>
FOREWORD.....	(xv)
PART I. DEFINITIONS	I-1
PART II. PROCEDURES FOR CERTIFICATION AND CONTINUING AIRWORTHINESS	II-1-1
CHAPTER 1. Type certification.....	II-1-1
1.1 Applicability	II-1-1
1.2 Design aspects of the appropriate airworthiness requirements.....	II-1-1
1.3 Proof of compliance with the appropriate airworthiness requirements	II-1-2
1.4 Type Certificate.....	II-1-3
CHAPTER 2. Production.....	II-2-1
2.1 Applicability	II-2-1
2.2 Aircraft production	II-2-1
2.3 Aircraft parts production	II-2-1
2.4 Production approval	II-2-1
CHAPTER 3. Certificate of Airworthiness.....	II-3-1
3.1 Applicability	II-3-1
3.2 Issuance and continued validity of a Certificate of Airworthiness	II-3-1
3.3 Standard form of Certificate of Airworthiness	II-3-2
3.4 Aircraft limitations and information.....	II-3-2
3.5 Temporary loss of airworthiness	II-3-2
3.6 Damage to aircraft.....	II-3-2
CHAPTER 4. Continuing airworthiness of aircraft	II-4-1
4.1 Applicability	II-4-1
4.2 Responsibilities of Contracting States in respect of continuing airworthiness	II-4-1
CHAPTER 5. Safety management.....	II-5-1
ATTACHMENT TO PART II. Framework for the State safety programme (SSP).....	II-ATT-1
PART III. LARGE AEROPLANES	IIIA-1-1
PART IIIA. Aeroplanes over 5 700 kg for which application for certification was submitted on or after 13 June 1960, but before 2 March 2004	IIIA-1-1
CHAPTER 1. General.....	IIIA-1-1
1.1 Applicability	IIIA-1-1
1.2 Number of engines	IIIA-1-1
1.3 Operating limitations.....	IIIA-1-2

	<i>Page</i>
1.4 Unsafe features and characteristics	IIIA-1-2
1.5 Proof of compliance	IIIA-1-2
CHAPTER 2. Flight.....	IIIA-2-1
2.1 General	IIIA-2-1
2.2 Performance	IIIA-2-1
2.3 Flying qualities.....	IIIA-2-3
CHAPTER 3. Structures	IIIA-3-1
3.1 General	IIIA-3-1
3.2 Airspeeds.....	IIIA-3-1
3.3 Flight loads.....	IIIA-3-2
3.4 Ground and water loads.....	IIIA-3-2
3.5 Miscellaneous loads	IIIA-3-3
3.6 Flutter, divergence and vibration.....	IIIA-3-3
3.7 Fatigue strength.....	IIIA-3-3
CHAPTER 4. Design and construction.....	IIIA-4-1
4.1 General	IIIA-4-1
CHAPTER 5. Engines	IIIA-5-1
5.1 Scope	IIIA-5-1
5.2 Design, construction and functioning	IIIA-5-1
5.3 Declared ratings, conditions and limitations	IIIA-5-1
5.4 Tests	IIIA-5-1
CHAPTER 6. Propellers	IIIA-6-1
6.1 Scope	IIIA-6-1
6.2 Design, construction and functioning	IIIA-6-1
6.3 Declared ratings, conditions and limitations	IIIA-6-1
6.4 Tests	IIIA-6-1
CHAPTER 7. Powerplant installation	IIIA-7-1
7.1 General	IIIA-7-1
7.2 Arrangement and functioning.....	IIIA-7-1
CHAPTER 8. Instruments and equipment.....	IIIA-8-1
8.1 Required instruments and equipment	IIIA-8-1
8.2 Installation.....	IIIA-8-1
8.3 Safety and survival equipment	IIIA-8-1
8.4 Navigation lights and anti-collision lights.....	IIIA-8-1
CHAPTER 9. Operating limitations and information.....	IIIA-9-1
9.1 General	IIIA-9-1
9.2 Operating limitations.....	IIIA-9-1
9.3 Operating information and procedures.....	IIIA-9-2
9.4 Performance information.....	IIIA-9-3
9.5 Aeroplane flight manual.....	IIIA-9-3
9.6 Markings and placards.....	IIIA-9-3

<i>Amendment(s)</i>	<i>Source(s)</i>	<i>Subject(s)</i>	<i>Adopted Effective Applicable</i>
100 (10th Edition)	First meeting of the Airworthiness Panel	<ul style="list-style-type: none"> a) New definitions of Category A, Category B, discrete source damage, engine, fireproof, fire resistant and satisfactory evidence, new note to critical power-unit; b) amendment to the definition of repair; c) revision of the provisions of Part II to allow the introduction of new parts in the Annex, amend Chapter 3 to clarify provisions relating to the limiting conditions under which a damaged aircraft is permitted to fly uncommercially to an aerodrome where it can be restored to an airworthy condition, and re-organize Chapter 4 to clarify States' responsibilities; d) revision of provisions in Part IIIA pertaining to applicability and operating limitations, proof of compliance; e) revision of provisions in Part IIIB pertaining to applicability, operating limitations, performance, stability, structure, design and construction, powerplant, operating limitations, crashworthiness and cabin safety, operating environment and Human Factors; f) restructuring of Part IV into Part IVA (same provisions as those contained in Part IV of Annex 8, Ninth Edition including Amendment 99, except for applicability clauses and cross-references) and Part IVB (new); g) introduction of new Part V — <i>Small Aeroplanes</i>, Part VI — <i>Engines</i> and Part VII — <i>Propellers</i>. 	13 December 2004 13 April 2005 13 December 2007
101	Secretariat	Amendment concerning the development of harmonized provisions relating to safety management on the implementation and maintenance of a State's safety programme from 18 November 2010 and the requirement for organizations responsible for the type design or manufacture of aircraft to implement a safety management system from 14 November 2013.	4 March 2009 20 July 2009 18 November 2010; 14 November 2013
102 (11th Edition)	Recommendations of the twelfth meeting of the Airworthiness Panel Working Group of the Whole (AIRP/WG/WHL/12); Secretariat proposal to restructure Annex 8	<ul style="list-style-type: none"> a) Amendment introduces new definitions in order to harmonize the use of terminology between Annexes 6 and 8; b) restructuring of Annex 8 so the format and structure align with other Annexes; c) adopts existing industry best practice, notably, updating aircraft design in order to reflect modern practice and specifies the applicability date of each amended design Standard. 	24 February 2010 12 July 2010 18 November 2010; 24 February 2013
103	Secretariat	The amendment requires the design and manufacture of aircraft's fire extinguishing and/or suppression systems for engines, auxiliary power-units (APUs) and lavatories to use alternative fire extinguishing agents to halon.	13 June 2011 30 October 2011 31 December 2014

PART II. PROCEDURES FOR CERTIFICATION AND CONTINUING AIRWORTHINESS

Note.— Although the Convention on International Civil Aviation allocates to the State of Registry certain functions which that State is entitled to discharge, or obligated to discharge, as the case may be, the Assembly recognized, in Resolution A23-13, that the State of Registry may be unable to fulfil its responsibilities adequately in instances where aircraft are leased, chartered or interchanged — in particular without crew — by an operator of another State and that the Convention may not adequately specify the rights and obligations of the State of an Operator in such instances until such time as Article 83 bis of the Convention enters into force. Accordingly, the Council urged that if, in the above-mentioned instances, the State of Registry finds itself unable to discharge adequately the functions allocated to it by the Convention, it delegate to the State of the Operator, subject to acceptance by the latter State, those functions of the State of Registry that can more adequately be discharged by the State of the Operator. It was understood that pending entry into force of Article 83 bis of the Convention, the foregoing action would only be a matter of practical convenience and would not affect either the provisions of the Chicago Convention prescribing the duties of the State of Registry or any third State. However, as Article 83 bis entered into force on 20 June 1997, such transfer agreements will have effect in respect of those Contracting States which have ratified the related Protocol (Doc 9318) upon fulfilment of the conditions established in Article 83 bis.

CHAPTER 1. TYPE CERTIFICATION

1.1 Applicability

The Standards of this chapter shall be applicable to all aircraft of types for which the application for certification was submitted to a Contracting State on or after 13 June 1960, except that:

- a) the provisions of 1.4 of this part shall only be applicable to an aircraft type for which an application for a Type Certificate is submitted to the State of Design on or after 2 March 2004; and
- b) the provisions of 1.2.5 of this part shall only be applicable to an aircraft type for which an application for a Type Certificate is submitted to the State of Design on or after 31 December 2014.

Note.— Normally, a request for a Type Certificate is submitted by the aircraft manufacturer when the aircraft is intended for serial production.

1.2 Design aspects of the appropriate airworthiness requirements

1.2.1 The design aspects of the appropriate airworthiness requirements, used by a Contracting State for type certification in respect of a class of aircraft or for any change to such type certification, shall be such that compliance with them will ensure compliance with the Standards of Part II of this Annex and, where applicable, with the Standards of Parts III, IV, V, VI or VII of this Annex.

1.2.2 The design shall not have any features or characteristics that render it unsafe under the anticipated operating conditions.

1.2.3 Where the design features of a particular aircraft render any of the design aspects of the appropriate airworthiness requirements or the Standards in Parts III, IV, V, VI or VII inappropriate, the Contracting State shall apply appropriate requirements that will give at least an equivalent level of safety.

1.2.4 Where the design features of a particular aircraft render any of the design aspects of the appropriate airworthiness requirements or the Standards in Parts III, IV, V, VI or VII inadequate, additional requirements that are considered by the Contracting State to give at least an equivalent level of safety shall be applied.

Note.— An Airworthiness Manual (Doc 9760) containing guidance material has been published by ICAO.

1.2.5 The approved design of an aircraft under Parts IIIB, IVB and V of this Annex shall use extinguishing agents that are not listed in the 1987 *Montreal Protocol on Substances that Deplete the Ozone Layer* as it appears in the Eighth Edition of the *Handbook for the Montreal Protocol on Substances that Deplete the Ozone Layer*, Annex A, Group II, in the aircraft fire suppression or extinguishing systems in the lavatories, engines and auxiliary power unit.

Note.— Information concerning extinguishing agents is contained in the UNEP Halons Technical Options Committee Technical Note No. 1 — New Technology Halon Alternatives and FAA Report No. DOT/FAA/AR-99-63, Options to the Use of Halons for Aircraft Fire Suppression Systems.

1.3 Proof of compliance with the appropriate airworthiness requirements

1.3.1 There shall be an approved design consisting of such drawings, specifications, reports and documentary evidence as are necessary to define the design of the aircraft and to show compliance with the design aspects of the appropriate airworthiness requirements.

Note.— The approval of the design is facilitated, in some States, by approving the design organization.

1.3.2 The aircraft shall be subjected to such inspections and ground and flight tests as are deemed necessary by the State to show compliance with the design aspects of the appropriate airworthiness requirements.

1.3.3 In addition to determining compliance with the design aspects of the appropriate airworthiness requirements for an aircraft, Contracting States shall take whatever other steps they deem necessary to ensure that the design approval is withheld if the aircraft is known or suspected to have dangerous features not specifically guarded against by those requirements.

1.3.4 A Contracting State issuing an approval for the design of a modification, of a repair or of a replacement part shall do so on the basis of satisfactory evidence that the aircraft is in compliance with the airworthiness requirements used for the issuance of the Type Certificate, its amendments or later requirements when determined by the State.

Note 1.— While a repair may be completed and shown to be in compliance with the set of requirements that had been selected for the original type certification of the aircraft, some repairs may need to be shown to comply with the latest applicable certification requirements. In such cases, States may issue a repair design approval against the latest set of requirements for that aircraft type.

Note 2.— The approval of the design of a modification to an aircraft is signified, in some States, by the issuance of a supplemental Type Certificate or amended Type Certificate.

1.4 Type Certificate

1.4.1 The State of Design, upon receipt of satisfactory evidence that the aircraft type is in compliance with the design aspects of the appropriate airworthiness requirements, shall issue a Type Certificate to define the design and to signify approval of the design of the aircraft type.

Note.— Some Contracting States also issue Type Certificates for engines and propellers.

1.4.2 When a Contracting State, other than the State of Design, issues a Type Certificate for an aircraft type, it shall do so on the basis of satisfactory evidence that the aircraft type is in compliance with the design aspects of the appropriate airworthiness requirements.
