



**CIVIL AVIATION AUTHORITY OF SRI LANKA  
AVIATION SAFETY NOTICE**

ASN No. 060	Ref No:AW/2010/03	File Ref: AW/20/3
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- Recipients : 1) Holders of Air Operator Certificates issued by DGCA  
2) Prospective applicants for Air Operator Certificates  
3) All Scheduled Airlines operating to BIA  
4) Head of Air Navigation Services – to publish the contents of the attachment to this ASN as an AIC
- 01.Subject : **Aircraft Noise Certification**
- 02.Nature : Compulsory
- 03.Issue no : 03
- 04.Status : Replacement of ASN 060 second issue on 05<sup>th</sup> August 2005
05. Effective date : With immediate effect
06. Validity : Until Further Notice
- 07.Contact person : For more details/ clarifications/ about this ASN please contact Deputy Director (Airworthiness) Civil Aviation Authority, No64, Galle Road Colombo 03. Sri Lanka. Telephone: +94 11 2391305. E-mail: ddaw@caa.lk
- 08.Availability : A copy of this document is available on web site- **www.caa.lk** and the Technical library of Civil Aviation Authority. Copies can be collected at reproduction cost from the library.
- 09.Applicability : All Aircraft engaged in commercial air transport operations in Sri Lanka Airspace.
- 10.Comments : Comments (if any) on the contents of this Aviation Safety Notice (ASN) may be forwarded to the contact person. However the Aviation Safety Notice will come into effect on the date shown therein notwithstanding any objection or comment made by any person or party unless and until an amendment to the Aviation Safety Notice is issued afresh by the Director General of Civil Aviation.

11. Notice : Any Aircraft to be operated into and out of Sri Lanka including foreign registered aircraft shall conform to the requirements specified in the attachment hereto.

Amendments to the attachment are indicated by a vertical line on the left hand side of relevant paragraphs.

12. History of Revision : ASN No 060 (Issue No 02) issued on 05<sup>th</sup> August 2005 is revised for the inclusion of fifth edition 2008 to the Annex 16 Volume I – Aircraft Noise Certification.

13. Related ASNs : None

14. Action Required : For strict compliance of the contents in the attachment by all commercial air transport operations in the Sri Lanka airspace.

15. Check list : List of current ASN nos are as follows

ASN No	Issue No	Date of Applicability	Remarks
ASN002	01	10.03.2000	nil
ASN003	01	18.08.2000	nil
ASN004	01	13.02.2001	nil
ASN005	01	26.03.2001	nil
ASN007	01	15.09.2001	nil
ASN008	02	16.11.2006	Replaced ASN no 008 issue no 01
ASN009	01	18.02.2002	nil
ASN010	01	18.02.2002	nil
ASN011	01	18.02.2002	nil
ASN012	01	18.02.2002	nil
ASN013	01	08.02.2002	nil
ASN014	01	01.03.2002	nil
ASN015	01	01.03.2002	nil
ASN016	01	01.03.2002	nil
ASN017	02	10.03.2005	Replaced ASN no 017 issue no 01
ASN018	01	20.03.2002	nil
ASN019	01	01.04.2002	nil
ASN021	01	01.04.2002	nil
ASN022	01	08.04.2002	nil
ASN023	01	01.06.2002	Replaced ASN no 003
ASN024	01	02.09.2002	nil
ASN025	02	15.10.2002	Replaced ASN no 001
ASN026	01	15.10.2002	nil
ASN027	01	20.12.2002	nil
ASN028	01	12.03.2003	nil
ASN029	01	21.03.2002	nil
ASN030	01	10.07.2002	nil
ASN031	01	15.07.2003	Replaced ASN no 006
ASN032	01	25.07.2003	nil
ASN033	02	25.08.2005	Replaced ASN no 033 issue no 01
ASN034	01	11.09.2003	nil
ASN035	01	12.09.2003	nil
ASN036	02	25.08.2010	Replaced ASN no 036 issue no 01
ASN037	01	13.10.2003	nil
ASN038	02	30.06.2010	Replaced ASN no 038 issue no 01
ASN039	04	19.08.2008	Replaced ASN no 039 issue no 03
ASN040	01	07.06.2004	nil
ASN041	01	16.06.2004	nil
ASN042	06	10.06.2010	Replaced ASN no 042 issue no 05

ASN043	02	12.08.2004	Amendment to ASN no 013
ASN044	03	24.05.2010	Replaced ASN no 044 issue no 02
ASN045	02	05.01.2007	Replaced ASN no 045 issue no 01
ASN046	03	10.06.2010	Replaced ASN no 046 issue no 02
ASN047	04	24.05.2010	Replaced ASN no 047 issue no 03
ASN048	02	05.01.2007	Replaced ASN no 048 issue no 01
ASN049	01	20.09.2004	nil
ASN051	02	10.06.2010	Replaced ASN no 051 issue no 01
ASN052	01	20.09.2004	nil
ASN053	05	10.06.2010	Replaced ASN no 053 issue no 04
ASN054	04	15.12.2009	Replaced ASN no 054 issue no 03
ASN055	04	17.07.2009	Replaced ASN no 055 issue no 03
ASN056	02	20.07.2009	Replaced ASN no 056 issue no 01
ASN057	02	01.10.2009	Replaced ASN no 057 issue no 01
ASN058	03	21.07.2009	Replaced ASN no 058 issue no 02
ASN059	02	16.12.2009	Replaced ASN no 059 issue no 01
ASN060	03	20.09.2010	Replaced ASN no 060 issue no 02
ASN061	02	05.08.2005	Replaced Page no 01 of the attachment to the ASN no 061 issue no 01
ASN062	01	01.03.2005	nil
ASN063	01	20.12.2004	nil
ASN065	01	06.04.2005	nil
ASN066	01	16.05.2005	nil
ASN067	01	16.05.2005	nil
ASN068	01	18.05.2005	nil
ASN069	01	18.05.2005	nil
ASN070	01	18.05.2005	nil
ASN071	01	18.05.2005	nil
ASN072	01	19.05.2005	nil
ASN073	01	19.05.2005	nil
ASN074	01	19.05.2005	nil
ASN075	01	19.05.2005	nil
ASN076	01	16.06.2005	nil
ASN077	02	01.06.2009	Replaced ASN no 077 issue No. 01
ASN078	01	21.12.2005	nil
ASN079	02	17.06.2010	Replaced ASN no 079 issue No. 01
ASN080	02	01.07.2010	Replaced ASN no 080 issue No. 01
ASN081	05	10.06.2010	Replaced ASN no 081 issue No. 04
ASN082	01	23.11.2005	nil
ASN083	01	01.12.2005	nil
ASN084	01	16.12.2005	nil
ASN085	01	05.01.2006	nil
ASN086	03	12.07.2010	Replaced ASN no 086 issue No. 02
ASN089	01	10.05.2006	nil
ASN090	03	28.05.2010	Replaced ASN no 090 issue No. 02
ASN091	04	18.11.2010	Replaced ASN no 091 issue No. 03
ASN092	01	09.11.2007	nil
ASN093	02	18.11.2010	Replaced ASN no 093 issue No. 02
ASN094	01	02.06.2006	nil
ASN095	01	25.09.2006	nil
ASN096	01	11.09.2007	nil
ASN097	02	20.01.2010	Replaced ASN no 097 issue No. 01
ASN099	02	25.05.2010	Replaced ASN no 099 issue No. 01
ASN100	04	19.08.2010	Replaced ASN no 100 issue No. 03
ASN101	01	28.01.2008	nil
ASN102	01	04.03.2008	nil
ASN103	01	01.08.2008	nil
ASN104	01	28.08.2008	nil
ASN105	01	07.08.2008	nil
ASN106	01	03.12.2008	nil

ASN107	01	12.01.2009	nil
ASN108	01	20.05.2009	nil
ASN109	01	07.09.2009	nil
ASN110	01	08.09.2009	nil
ASN111	02	15.10.2010	Replaced ASN no 111 issue No. 01
ASN112	02	15.09.2010	Replaced ASN no 112 issue No. 01
ASN113	01	03.03.2010	nil
ASN114	01	04.03.2010	nil
ASN115	01	06.04.2010	nil
ASN116	01	06.04.2010	nil
ASN117	01	21.05.2010	nil
ASN118	01	24.05.2010	nil
ASN119	01	22.06.2010	nil
ASN120	01	02.07.2010	nil
ASN121	01	08.07.2010	nil
ASN122	01	25.09.2010	nil
ASN123	-	-	Not issued yet
ASN124	01	23.07.2010	nil
ASN125	01	15.09.2010	nil
ASN126	01	15.09.2010	nil

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## AIRCRAFT NOISE CERTIFICATION

### 1. APPLICABILITY

Requirement contained in this document are based on the ICAO Annex-16 “Environmental Protection”. Noise certification or validation procedures apply to all such aircraft as are specified in Annex 16 Volume 1 and registered in Sri Lanka. These procedures are also applicable to foreign registered aircraft operated under AOC issued by the Director General of Civil Aviation. In respect of foreign aircraft conducting flight operations into and out of Sri Lanka, the requirements for Noise Certification shall be as approved by the State of the Operator. Nevertheless such requirements shall not be less than that are specified in the Annex-16 to the Convention on International Civil Aviation in writing.

Note: Guidance material on the use of equivalent procedures address in this part is provided in the Environmental Technical Manual on the use of procedures in the Noise Certification of Aircraft DOC 9501.

### PART 1 DEFINITIONS

Where the following expressions are used in Noise certification of this ASN they have the meanings ascribed to them bellow:

**Aeroplane.** A power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight.

**Aircraft.** Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth’s surface.

**Associated aircraft systems.** Those aircraft systems drawing electrical/pneumatic power from an auxiliary power unit during ground operations.

**Auxiliary power-unit (APU).** A self-contained power-unit on an aircraft providing electrical/pneumatic power to aircraft systems during ground operations.

**Bypass ratio.** The ratio of the air mass flow through the bypass ducts of a gas turbine engine to the air mass flow through the combustion chambers calculated at maximum thrust when the engine is stationary in an international standard atmosphere at sea level.

**Derived version of a helicopter.** A helicopter which, from the point of view of airworthiness, is similar to the noise certificated prototype but incorporates changes in type design which may affect its noise characteristics adversely.

**Derived version of an aeroplane.** An aeroplane which, from the point of view of airworthiness, is similar to the noise certificated prototype but incorporates changes in type design which may affect its noise characteristics adversely.

**External equipment (helicopter).** Any instrument, mechanism, part, apparatus, appurtenance, or accessory that is attached to or extends from the helicopter exterior but is not used nor is intended to be used for operating or controlling a helicopter in flight and is not part of an airframe or engine.

**Helicopter.** A heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes.

**Human performance.** Human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.

**Recertification.** Certification of an aircraft with or without a revision to its certification noise levels, to a Standard different to that to which it was originally certificated.

**Self-sustaining powered sailplane.** A powered aeroplane with available engine power which allows it to maintain level flight but not to take off under its own power.

**Subsonic aeroplane.** An aeroplane incapable of sustaining level flight at speeds exceeding flight Mach number of 1.

## **Part II**

### **Chapter 1. Administration**

1.1 The provisions of 1.2 to 1.6 shall apply to all aircraft included in the classifications defined for noise certification purposes in Chapters 2, 3, 4, 5, 6, 8, 10, 11 and 12 of this part where such aircraft are engaged in international air navigation.

1.2 Noise certification shall be granted or validated by the Director General on the basis of satisfactory evidence that the aircraft complies with requirements that are at least equal to the applicable Standards specified in this ASN.

1.3 If noise recertification is requested, it shall be granted or validated by the Director General on the basis of satisfactory evidence that the aircraft complies with requirements that are at least equal to the applicable Standards specified in this ASN. The date used by a certificating authority to determine the recertification basis shall be the date of acceptance of the first application for recertification.

1.4 The documents attesting noise certification shall be approved by Director General and shall be carried in the aircraft during flight.

1.5 The documents attesting noise certification for an aircraft shall provide at least the following information:

- 1) Name of State.
- 2) Title of the noise document.
- 3) Number of the document.
- 4) Nationality or common mark and registration marks.
- 5) Manufacturer and manufacturer's designation of aircraft.
- 6) Aircraft serial number.
- 7) Engine manufacturer, type and model.
- 8) Propeller type and model for propeller-driven aeroplanes.
- 9) Maximum take-off mass in kilograms.
- 10) Maximum landing mass, in kilograms, for certificates issued under Chapters 2, 3, 4, 5 and 12 of this ASN.

- 11) The chapter and section of Annex 16 Volume 1 according to which the aircraft was certificated.
- 12) Additional modifications incorporated for the purpose of compliance with the applicable noise certification Standards.
- 13) The lateral/full-power noise level in the corresponding unit for documents issued under Chapters 2, 3, 4, 5 and 12 of this ASN.
- 14) The approach noise level in the corresponding unit for documents issued under Chapters 2, 3, 4, 5, 8 and 12 of this ASN.
- 15) The flyover noise level in the corresponding unit for documents issued under Chapters 2, 3, 4, 5 and 12 of this ASN.
- 16) The overflight noise level in the corresponding unit for documents issued under Chapters 6, 8 and 11 of this ASN.
- 17) The take-off noise level in the corresponding unit for documents issued under Chapters 8 and 10 of this ASN.
- 18) Statement of compliance, including a reference to Annex 16, Volume I.
- 19) Date of issuance of the noise certification document.
- 20) Signature of the officer issuing it.

1.5.1 Information required under 1.5 (e) through (q) shall be included in the flight manual

Note: Figure 1 show Noise Certificate

1.6 Item headings on the noise certification documents shall be uniformly numbered in Arabic numerals, the content shall be indicated as indicated in 1.5, so that on any noise certification document the number will, under any arrangement, refer to the same item heading,

1.7 An administrative system for implementation of noise certification documentation shall be developed by the Director General.

1.8 Director General shall recognize as valid a noise certification granted by another Contracting State provided that the requirements under which such certification was granted are at least equal to the applicable Standards specified in Volume 1 of Annex 16.

1.9 Director General shall suspend or revoke the noise certification of an aircraft on its register if the aircraft ceases to comply with the applicable noise Standards. Director General shall not remove the suspension of a noise certification or grant a new noise certification unless the aircraft is found, on reassessment, to comply with the applicable noise Standards.

1.10 Unless otherwise specified in volume 1 of the Annex 16, the date to be used by Director General in determining the applicability of the Standards in this ASN shall be the date of application submitted to the State of Design for a type certificate, or the date of application under an equivalent prescribed procedure by the certifying authority of the State of Design. The application shall be effective for a duration equal to the period applied in the designation of the airworthiness regulations appropriate to the aircraft type, except in special cases where the certifying authority accepts an extension of this period.

1.11 When this period of effectivity is exceeded, the date to be used in determining the applicability of the Standards in this ASN shall be the date of issue of the type certificate, or the date of issue of approval under an equivalent prescribed procedure, less the duration of effectivity.

1.12 Where International comparison of noise assessment around airports is under taken, the methodology described in recommended method for computing noise contours around airports (Circ 205) shall be used.

1.13 Aircraft operating procedures for noise abatement shall be not be introduced unless the Director General, based on appropriate studied and consultation, determines that noise problems exists.

## **Chapter 2**

### **Subsonic Jet Aeroplanes – Application for Type Certificate submitted before 6 October 1977**

The Standards specified in the chapter 2 of the Annex-16 Volume1 shall be applicable to the above stated aeroplanes.

## **Chapter 3**

**(i) Subsonic Jet Aeroplanes – Application for Type Certificate submitted on or after 6 October 1977 and before 1 January 2006.**

**(ii) Propeller – Driven Aeroplanes over 5700 kg. – Application for Type Certificate submitted on or after 1 January 1985 and before 17 November 1988.**

**(iii) Propeller-Driven Aeroplanes over 8618 kg. – Application for Type Certificate submitted on or after 17 November 1988, and before 1 January 2006.**

The Standards specified in the chapter 3 of the Annex-16 Volume1 shall be applicable to the above stated aeroplanes.

## **Chapter 4**

**i) Subsonic Jet Aeroplanes – Application for Type Certificate submitted on or after 1 January 2006.**

**(ii) Propeller-Driven Aeroplanes over 8618 kg – Application for Type Certificate submitted on or after 1 January 2006.**

The Standards specified in the chapter 4 of the Annex-16 Volume1 shall be applicable to the above stated aeroplanes.

## **Chapter 5**

**Propeller-Driven Aeroplanes over 5700 kg –Application for type Certificate submitted before 1 January 1985.**

The Standards specified in the chapter 5 of the Annex-16 Volume1 shall be applicable to the above stated aeroplanes.

## **Chapter 6**

**Propeller – Driven Aeroplanes not exceeding 8618 kg – Application for Type Certificate submitted before 17 November 1988.**



The Standards specified in the chapter 6 of the Annex-16 Volume1 shall be applicable to the above stated aeroplanes

## **Chapter 7**

### **Propeller – Driven STOL Aeroplanes**

Guidelines provided in Attachment “B” of the Annex-16 Volume1 may be used for noise certification of propeller driven STOL aeroplanes for which a Certificate of Airworthiness for the individual aeroplanes was first issued on or after 1 January 1976.

## **Chapter 8**

### **Helicopters**

The Standards specified in the chapter 8 of the Annex-16 Volume1 shall be applicable to the above stated helicopters except those designed exclusively for agricultural, fire fighting or external load carrying purposes.

Note: The Owners/Operators of helicopters which have a maximum certified take-of mass of 3175 kg or less may alternatively elect to show compliance with Chapter 11 below.

## **Chapter 9**

### **Installed Auxiliary Power Units (APU) and associated aircraft systems during ground operations.**

Guidelines provided in Attachment “C” of the Annex-16 Volume1 may be used for noise certification of Installed Auxiliary Power Units (APU) and associated aircraft systems during ground operations.

- a) all aircraft for which the application for a Type Certificate was submitted, or another equivalent prescribed procedure was carried out by the certifying authority, on or after 6 October 1977; and
- b) aircraft of existing type design for which the application for a change of type design involving the basic APU installation was submitted, or another equivalent prescribed procedure was carried out by the certifying authority, on or after 6 October 1977.

## **Chapter 10**

### **Propeller-Driven Aeroplanes not exceeding 8618 kg – Application for Type Certificate or derived version submitted on or after 17 November 1988.**

The Standards specified in the chapter 10 of the Annex-16 Volume1 shall be applicable to the above stated aeroplanes

## **Chapter 11**

### **Helicopter not exceeding 3175 kg MCTOM**

The Standards specified in the chapter 11 of the Annex-16 Volume1 shall be applicable to the above stated aeroplanes

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## Chapter 12

### i) Supersonic aeroplanes — application for Type Certificate submitted before 1 January 1975

The Standards specified in the chapter 12 of the Annex-16 Volume1 shall be applicable to the above stated aeroplanes

## Part III

### Noise Measurement for Monitoring Purposes

Where the measurement of aircraft noise is made for monitoring purposes, the method of Annex 16 Vol 1 Appendix 5 shall be used.

## Part IV

### ASSESSMENT OF AIRPORT NOISE

Where international comparison of noise assessment around airports is undertaken, the methodology described in recommended method for computing noise contours around airport (cir 205) shall be used.

## Part V

### BALANCED APPROACH TO NOISE MANAGEMENT

The balanced approach to noise management consists of identifying the noise problem at an airport and then analyzing the various measures available to reduce noise through the exploration of four principal elements, namely reduction at source (addressed in Part II of Annex 16 Vol 1), land-use planning and management, noise abatement operational procedures and operating restrictions, with the goal of addressing the noise problem in the most cost-effective manner.

All the elements of the balanced approach are addressed in the Guidance on the Balanced Approach to Aircraft Noise Management (Doc 9829).

## 2. NOISE STANDARDS

2.1 All aircraft operated under AOC issued by the Director General of Civil Aviation shall comply with noise standards of ICAO Annex 16, Volume 1

2.2 Noise certificates are issued on the basis of noise certificates issued by the National Aviation Authority of ICAO Contracting States responsible for issue of Type Certificate in compliance with ICAO Annex 16 Volume 1 noise standards or equivalent noise standards, information/data contained in the NAA approved flight manual.

## 3. Issue/ Validation of Noise Certificate

3.1 An operator/owner is requested to submit the following documents to the CAA requiring the issue of Noise Certificate by the Director General of Civil Aviation.

(a) Original copy of the Noise certificate issued by the NAA responsible for issue of Type Certificate of the aircraft type;

- (b) Subsequent Noise Certificate(s) issued by the NAA(s) responsible for issue / renewal of Certificate of Airworthiness and Noise Certificate of the aircraft, if applicable;
- (c) Approved and current Flight Manual or other document / manual confirming that the aircraft complies with the noise standards in the section 3 above; and,
- (d) Verification and the statement that there has been no adverse and/or unapproved change in the acoustical design of the aircraft/engine and the current status of the aircraft and engine is in compliance with type design.

#### **4. Suspension/ Cancellation of Noise Certificate**

4.1 Noise certificate of an aircraft may be suspended or revoked if the aircraft ceases to comply with the applicable noise standards. Suspension of Noise Certificate may not be removed or a new certificate may not granted unless the aircraft is found, on reassessment, to comply with the applicable noise standards.

Registry No:



File Ref:

## CIVIL AVIATION AUTHORITY OF SRI LANKA

### *Noise Certificate*

(01) Nationality and Registration Marks;	(02) Manufacturer and Manufacturer,s Designation of aircraft;	(03) Aircraft Serial No;		
(04) Engine Manufacturer Type /Model:		(05) Propeller Type/ Model;		
(06) Maximum Take-off mass;	(07) Maximum Landing mass	(08) Noise Certification Standards ICAO Annex 16 Vol 01 Chapter3		
(09) Additional modification incorporated for the purpose of compliance with the applicable noise certification standards:				
(10) Lateral/ full power noise level;	(11) Approach noise level	(12) Flyover noise level	(13) Overflight noise level	(14) Take-off noise level
(15) Remarks;				
This noise certificate is issued pursuant to volume 1 of Annex 16 to the Convention on International Civil Aviation, in respect of the above mentioned aircraft, which is considered to comply with the indicated noise standard when mentioned and operated in accordance with the relevant requirements and operating limitations.				
<div style="display: flex; justify-content: space-between;"> <span>Date of issue :-</span> <span>Director General of Civil Aviation</span> </div>				

**Figure 1**