European Aviation Safety Agency

Certification Specifications for Aircraft Noise

CS-36

Amendment 2
31 August 2009
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AIRCRAFT NOISE

PREAMBLE

BOOK 1 – NOISE REQUIREMENTS

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PREAMBLE

CS-36 Amendment 2  Effective: 07/09/2009

The following is a list of paragraphs affected by this amendment:

Book 2
- GM 36.1 (p)          Amended
- GM 36.1 (q)          Amended
- GM 36.1 (r)          Added
- GM 36.1 final section

CS-36 Amendment 1  Effective: 03/04/2007

The following is a list of paragraphs affected by this amendment:

Title page          Amended
Contents            Contents page added
Preamble            Preamble added

Book 1

Title page amended

Book 2
- AMC 36.1 (a) - (i)          Amended
- GM 36.1 (a) - (h), (j) and (q) Amended
- GM 36.1 (i)              Deleted and reserved
- GM 36.1                Final section Amended
EASA Certification Specifications for Aircraft Noise

CS-36 Book 1

Noise Requirements
CS 36 BOOK 1

CS 36.1 Aircraft noise
(See AMC 36.1 and GM 36.1)

The aircraft must be designed to comply with the applicable noise requirements defined under 21A.18(a).
EASA Certification Specifications for Aircraft Noise

CS-36 Book 2

Acceptable Means of Compliance and Guidance Material
AMC 36.1 Aircraft noise

The acceptable means of compliance for aircraft noise are presented in:

(a) for aeroplanes for which Chapter 2 of Annex 16 to the Chicago Convention\(^1\), Volume I, Part II is applicable, Appendix 1 of Annex 16, Volume I;

(b) for aeroplanes for which Chapter 3 of Annex 16 to the Chicago Convention, Volume I, Part II is applicable, Appendix 2 of Annex 16, Volume I;

(c) for aeroplanes for which Chapter 4 of Annex 16 to the Chicago Convention, Volume I, Part II is applicable, Appendix 2 of Annex 16, Volume I;

(d) for aeroplanes for which Chapter 5 of Annex 16 to the Chicago Convention, Volume I, Part II is applicable, Appendix 2 of Annex 16, Volume I;

(e) for aeroplanes for which Chapter 6 of Annex 16 to the Chicago Convention, Volume I, Part II is applicable, Appendix 3 of Annex 16, Volume I;

(f) for helicopters for which Chapter 8 of Annex 16 to the Chicago Convention, Volume I, Part II is applicable, Appendix 2 of Annex 16, Volume I;

(g) for aeroplanes for which Chapter 10 of Annex 16 to the Chicago Convention, Volume I, Part II is applicable, Appendix 6 of Annex 16, Volume I;

(h) for helicopters for which Chapter 11 of Annex 16 to the Chicago Convention, Volume I, Part II is applicable, Appendix 4 of Annex 16, Volume I; and

(i) for aeroplanes for which Chapter 12 of Annex 16 to the Chicago Convention, Volume I, Part II is applicable, Appendix 1 of Annex 16, Volume I.

GM 36.1 Aircraft noise

Guidance material for the application of the certification specifications for aircraft noise is presented in:

(a) for equations for the calculation of noise levels as a function of take-off mass, Attachment A to Annex 16 to the Chicago Convention, Volume I;

(b) for evaluating an alternative method of measuring helicopter noise during approach, Attachment D to Annex 16 to the Chicago Convention, Volume I;

(c) for applicability of noise certification standards for propeller-driven aeroplanes, Attachment E to Annex 16, Volume I;

(d) for equivalent procedures for subsonic jet aeroplanes, Chapter 2 of the International Civil Aviation Organisation (ICAO) Environmental Technical Manual;

(e) for equivalent procedures for propeller-driven aeroplanes over 8,618 kg, Chapter 3 of the ICAO Environmental Technical Manual;

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\(^1\) The Convention on International Civil Aviation on 7 December 1944
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(f) for equivalent procedures for propeller-driven aeroplanes not exceeding 8,618 kg, Chapter 4 of the ICAO Environmental Technical Manual;

(g) for equivalent procedures for helicopters, Chapter 5 of the ICAO Environmental Technical Manual;

(h) for evaluation methods, Chapter 6 of the ICAO Environmental Technical Manual;

(i) [Reserved];

(j) for control of noise certification computer programme software and documentation related to static to flight projection processes, Chapter 8 of the ICAO Environmental Technical Manual;

(k) for calculation of confidence intervals, Appendix 1 of the ICAO Environmental Technical Manual;

(l) for identification of spectral irregularities, Appendix 2 of the ICAO Environmental Technical Manual;

(m) for a procedure for removing the effects of ambient noise levels from aeroplane noise data, Appendix 3 of the ICAO Environmental Technical Manual;

(n) for reference tables and figures used in the manual calculation of Effective Perceived Noise Level, Appendix 4 of the ICAO Environmental Technical Manual;

(o) for worked examples of calculation of reference flyover height and reference conditions for source noise adjustments for certification of light propeller driven aeroplanes, Appendix 5 of the ICAO Environmental Technical Manual;

(p) for noise data corrections for tests at high altitude test sites, Appendix 6 of the ICAO Environmental Technical Manual;

(q) for reassessment criteria for the recertification of an aeroplane to Annex 16 to the Chicago Convention, Volume 1, Chapter 4, Appendix 8 of the ICAO Environmental Technical Manual; and

(r) for the use of DGPS-based time space position information tracking systems, Appendix 10 of the ICAO Environmental Technical Manual.


[Amdt. 36/1, Amdt. 36/2]