



دستورالعمل های هواپیمائی کشوری
Civil Aviation Directive (CAD)
CAD 3608

خصوصیات تایید برای سر و صدای هواپیما
Certification Specifications for
Aircraft Noise

Aircraft Engineering Department

دفتر مهندسی نظارت بر طراحی و ساخت
وسایل پرنده

بسم الله الرحمن الرحيم



دستورالعمل هواپیمایی کشوری جمهوری اسلامی ایران

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Civil Aviation Regulation of IR.IRAN

CAD 3608

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Certification Specifications for

Aircraft Noise

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AMENDMENTS

The issue of amendments is announced regularly in the CAO.IRI website, which holders of this publication should consult. The space below is provided to keep a record of such amendments.

RECORD OF AMENDMENTS AND CORRIGENDA

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Forward

1. For the definitions and abbreviations on this Regulation may refer to the CAO.IRI CAD-Definitions.
2. The content of Book 1 is Aircraft Engine Emissions and Fuel Venting requirements and Book 2 is Acceptable Means of Compliance and Guidance Material.

CAO.IRI Certification Specifications
for
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Book 1
Noise requirements

BOOK 1

3608.1 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).

CAO.IRI Certification Specifications
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Book 2
Acceptable Means of Compliance
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BOOK 2

AMC 36.1 Aircraft noise

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

- (a) for aeroplanes for which Chapter 2 of CAO IRI ICAS 116 Volume I, Part II is applicable, Appendix 1 of CAO IRI ICAS 116 Volume I;
- (b) for aeroplanes for which Chapter 3 of CAO IRI ICAS 116 Volume I, Part II is applicable, Appendix 2 of CAO IRI ICAS 116 Volume I;
- (c) for aeroplanes for which Chapter 4 of CAO IRI ICAS 116 Volume I, Part II is applicable, Appendix 2 of CAO IRI ICAS 116 Volume I;
- (d) for aeroplanes for which Chapter 5 of CAO IRI ICAS 116 Volume I, Part II is applicable, Appendix 2 of CAO IRI ICAS 116 Volume I;
- (e) for aeroplanes for which Chapter 6 of CAO IRI ICAS 116 Volume I, Part II is applicable, Appendix 3 of CAO IRI ICAS 116 Volume I;
- (f) for helicopters for which Chapter 8 of CAO IRI ICAS 116 Volume I, Part II is applicable, Appendix 2 of CAO IRI ICAS 116 Volume I;
- (g) for aeroplanes for which Chapter 10 of CAO IRI ICAS 116 Volume I, Part II is applicable, Appendix 6 of CAO IRI ICAS 116 Volume I;
- (h) for helicopters for which Chapter 11 of CAO IRI ICAS 116 Volume I, Part II is applicable, Appendix 4 of CAO IRI ICAS 116 Volume I; and
- (i) for aeroplanes for which Chapter 12 of CAO IRI ICAS 116 Volume I, Part II is applicable, Appendix 1 of CAO IRI ICAS 116 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 ICAS 116 to the Chicago Convention, Volume I;
- (b) for evaluating an alternative method of measuring helicopter noise during approach, Attachment D to ICAS 116 to the Chicago Convention, Volume I;
- (c) for applicability of noise certification standards for propeller driven aeroplanes, Attachment E to ICAS 116 to the Chicago Convention, Volume 1;
- (d) for equivalent procedures for sub-sonic jet aeroplanes, Chapter 2 of the International Civil Aviation Organization (CAO IRI) Environmental Technical Manual;
- (e) for equivalent procedures for propeller driven aeroplanes over 8,618 kg, Chapter 3 of the CAO IRI Environmental Technical Manual;
- (f) for equivalent procedures for propeller driven aeroplanes not exceeding 8,618 kg, Chapter of the CAO IRI Environmental Technical Manual;
- (g) for equivalent procedures for helicopters, Chapter 5 of the CAO IRI Environmental Technical Manual;
- (h) for evaluation methods, Chapter 6 of the CAO IRI Environmental Technical Manual;
- (i) reserved;
- (j) for control of noise certification computer program software and documentation related to static to flight projection processes, Chapter 8 of the CAO IRI Environmental Technical Manual;
- (k) for calculation of confidence intervals, Appendix 1 of the CAO IRI Environmental Technical Manual;

BOOK 2

- (l) for identification of spectral irregularities, Appendix 2 of the CAO IRI Environmental Technical Manual;
- (m) for a procedure for removing the effects of ambient noise levels from aeroplane noise data, Appendix 3 of the CAO IRI Environmental Technical Manual;
- (n) for reference tables and figures used in the manual calculation of Effective Perceived Noise Level, Appendix 4 of the CAO IRI 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 CAO IRI Environmental Technical Manual;
- (p) for noise data corrections for tests at high altitude test sites, Appendix 6 of the CAO IRI Environmental Technical Manual; and
- (q) for reassessment criteria for the re-certification of an aeroplane from ICAS 116 to the Chicago Convention, Volume 1, Chapter 3 to Chapter 4, Appendix 8 of the CAO IRI Environmental Technical Manual.

References throughout these Certification Specifications to the CAO IRI Environmental Technical Manual refer to the CAO IRI Environmental Technical Manual on the Use of Procedures in the Noise Certification of Aircraft, CAO IRI Doc 9501 AN/929, Third Edition 2004.