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Our reference number: 07/03-9

1 November 2004

Your reference number:

JAR-34: AIRCRAFT ENGINE EMISSIONS

Please find attached a copy of Amendment 1 to JAR-34, effective 1 November 2004.

Following the establishment of the European Aviation Safety Agency in September 2003 and the adoption of EASA Implementing Rules (IR), Certification Specifications (CS), and Acceptable Means of Compliance and Guidance Material (AMC) the Joint Aviation Authorities Committee made the decision that in future the JAA would publish amendments to the airworthiness JARs by incorporation of reference to EASA Implementing Rules, AMC and CS. Such publications would have a JAA cover with reference to the relevant EASA document, as well as any differences to it agreed by the JAA.

The appended JAR-34 is published following this decision, and replace the current JAR-34 Initial Issue.

Inge R Steenberg
Assistant to Regulation Director

Book Supplement

Joint Aviation Requirements

JAR–34

Aircraft Engine Emissions

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JAR-34

Aircraft Engine Emissions

Amendment 1
1 November 2004

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The members of the Joint Aviation Authorities Committee are representatives of the Civil Aviation Authorities of the countries and of the European Aviation Safety Agency (EASA) that have signed the 'Arrangements Concerning the Development and the Acceptance of Joint Aviation Requirements'. A list of these members is kept by European Civil Aviation Conference, 3 bis Villa Emile Bergerat, 92522 NEUILLY SUR SEINE Cedex, France.*

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Enquiries regarding the contents should be addressed to Central JAA, Saturnusstraat 8–10, PO Box 3000, 2130 KA HOOFFDORP, Netherlands (Fax No. (31) 23 5621714).

* These members are:

[Albania, Armenia, Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, European Aviation Safety Agency, Finland, Former Yugoslav Republic of Macedonia (FYROM), France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Monaco, Netherlands, Norway, Poland, Portugal, Republic of Moldova, Romania, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine & United Kingdom.]

Transposition into JAR-34 (Amendment 1) of the emission requirements as published,

- a) In Article 6.1 of the Regulation (EC) No 1592/2002 of the European Parliament and of the Council dated 15 July 2002;
- b) In the Commission Regulation (EC) No. 1701/2003 dated 24 September 2003 amending the Article 6.1 to distinguish ICAO Annex 16 volume I and volume II;
- c) In the Article 21A.18 (b) of the Commission Regulation (EC) No. 1702/2003 dated 24 September 2003;
- d) In the Annex (also called CS-34) to the EASA Executive Director Decision 2003/3/RM dated 17 October 2003, amends the current JAR-34 (Initial issue dated 1 September 2003) as follows:

JAR-34 Section 1

JAR 34.1 Fuel venting

The applicable emission requirements for the issue of a type-certificate for an aircraft and engine are prescribed in Annex 16 to the Chicago Convention

The aircraft must be designed to comply with the applicable fuel venting requirements defined in Volume II, Part II, Chapter 2

JAR 34.2 Aircraft engine emissions

(See ACJ 34.2 and GM 34.2)

The applicable emission requirements for the issue of a type-certificate for an aircraft and engine are prescribed in Annex 16 to the Chicago Convention

The aircraft engine must be designed to comply with the applicable emission requirements defined:

- in Volume II, Part III, Chapter 2 for emissions of turbo-jet and turbofan engines intended for propulsion only at subsonic speeds and;
- in Volume II, Part III, Chapter 3. for emissions of turbo-jet and turbofan engines intended for propulsion only at supersonic speeds

JAR-34 Section 2

ACJ 34.2 Aircraft engine emissions

The advisory circular joint for aircraft engine emissions is presented in:

- (a) for measurement of reference pressure ratio, Appendix 1 of ICAO Annex 16, Volume II;
- (b) for smoke emission evaluation, Appendix 2 of ICAO Annex 16, Volume II;
- (c) for instrumentation and measurement techniques for gaseous emissions, Appendix 3, except for its attachments, of ICAO Annex 16, Volume II;
- (d) for specification for fuel to be used in aircraft turbine engine emission testing, Appendix 4 of ICAO Annex 16, Volume II;
- (e) for instrumentation and measurement techniques for gaseous emissions from afterburning gas turbine engines, Appendix 5, except for its attachments, of ICAO Annex 16, Volume II; and

- (f) for compliance procedure for gaseous emissions and smoke, Appendix 6 of ICAO Annex 16, Volume II.

GM 34.2 Aircraft engine emissions

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

- (a) for instrumentation and measurement techniques for gaseous emissions, the attachments to Appendix 3 of ICAO Annex 16, Volume II; and
- (b) for instrumentation and measurement techniques for gaseous emissions from afterburning gas turbine engines, the attachments to Appendix 5 of ICAO Annex 16, Volume II.

For all references to Agency please read Joint Aviation Authorities/Authority as appropriate.

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