

NPA 34-1 Comment Response Document

A total of 159 comment responses were received from 6 JAA-member National Aviation Authorities (JAA-NAAAs), 2 European Industry Associations (Euro Assns) and one JAA Study Group (SG)

11 General comments were received addressing the following issues:

- (1) 1 SG and 1 JAA-NAA found the vocabulary used not always compatible with the usual vocabulary used in other JAR codes.

Response: Comments noted. The intent is to maintain compatibility with the ICAO Annex 16 volume II as was the case for JAR-36(noise). This could be the subject of a future NPA.

- (2) 1 JAA-NAA pointed out that the official language for JAR- codes is British-English not the US-English found in many places.

Response: Comment accepted – text amended

- (3) 1 JAA-NAA suggested to clearly define the subsonic and the supersonic speeds.

Response: Comment not accepted. Definitions are only given in JAR-34 for those terms that have a specific meaning within this code. Where terms are not defined in JAR-34 the international aeronautical meanings are accepted. The “sonic cruiser” concept is an aircraft that cruises at high subsonic speed.

- (4) 1 JAA-NAA proposed to fully harmonise the JAR-34 with the ICAO Annex 16, as regards to existing aircraft/engines, since it appears that JAR 34 shall apply to aircraft/engines produced back in 1965/1982.

Response: Comment noted. JAR-34 is harmonised with ICAO Annex 16 volume II. It is applicable to engines produced after 1965(subsonic)/1982(supersonic)

- (5) 1JAA-NAA found it difficult to know whether what one is reading is complete or not without administrative pages like Contents, check list of pages etc.

Response: Comment accepted- text amended

- (6) 1 JAA-NAA found the NPA contains heading and sections no longer permitted according to JAR-11.

Response: Comment accepted- text amended

- (7) 1 JAA-NAA pointed out that even what it is said in the introduction to NPA 34-1 about the relationship with the FAR 34 it has not been harmonised and there are differences.

Response: Comment noted. It is recognised that there are differences between JAR-34 and FAR-34. For this reason the introduction to NPA 34-1 states that these two codes are considered to be equivalent: it does not claim that they are harmonised.

- (8) 1 JAA-NAA reminded that the explanatory note ignores to mention certain types of gaseous emissions and smoke test procedures.

Response: Comment noted. The explanatory note is only of a general nature.

- (9) 1 JAA-NAA accepted the NPA 34-1 as presented.

Response: Response noted

- (10) 1 Euro-Assn had no comments on the NPA in question.

Response: Response noted

(11) 1 JAA-NAA found the NPA acceptable. However required a link with JAR 21 where aircraft engine emissions is connected with the date of application. The newer requirements, like EASA regulation was also addressed.

Response: Comment noted. Regarding JAR-21 NPA 21-3 addresses the procedural requirements regarding emissions certification. EASA requirements are being created separately and are not subject to this NPA.

14 comments on JAR 34.100 were received addressing the following issues:

Note: Following the Regulation Sectorial Team advice the definitions in JAR 34.100 were kept unchanged to remain consistent with ICAO Annex 16 Volume II, since after the establishment of the European Aviation Safety Agency (EASA) end of September 2003 the Annex 16 will be part of EASA Essential Requirements for 15 EU-states. This affected the responses in 14,16,18,19 and 20.

(12) 1 SG reminded that the title is not consistent with JAR-11 and the format of JAR-34 also might diverge from JAR-11.

Response: Comment noted- see response nr.1 and 6

(13) 1 SG and 1 JAA-NAA pointed out that the note in this paragraph is obscure and cannot be understood.

Response: Comment accepted- note deleted

(14) 1 SG and 1 JAA-NAA proposed an alternate wording for this paragraph, to define requirement more precisely.

Response: ~~Comment accepted~~ text amended Comment not accepted- See note above

(15) 1 JAA-NAA proposed to add definitions for aircraft and turbine engine.

Response: Comment accepted- text amended

(16) 3 JAA-NAA proposed to change the definition of the date of manufacture.

Response: ~~Comments accepted~~ text amended Comment not accepted- See note above

(17) 1 JAA-NAA proposed to change the title to read "terminology" and include the other definitions in JAR-34 under this paragraph.

Response: Comment accepted in part- title amended. The definitions in each appendix are left in situ for ease of reference.

(18) 1 JAA-NAA proposed to change the definition of the afterburning.

Response: ~~Comment accepted~~ text amended Comment not accepted- See note above

(19) 1 JAA-NAA requested clarification for the rated output.

Response: ~~Comment accepted in part~~ text amended to clarify the use of afterburner. The remaining text kept unchanged to remain consistent with ICAO and FAR-34. Comment not accepted- See note above

(20) 1 JAA-NAA proposed to changes the definition for Reference pressure ratio.

Response: ~~Comment accepted~~ definition amended Comment not accepted- See note above

(21) 1 JAA-NAA requested to delete the reference to appendix.

Response: Comment accepted- text amended

(22) 1 JAA-NAA asked clarification to the definition of the take-off phase.

Response: Comment not accepted. The time at Take-off phase, along with the climb and approach phases, is specified in 34.300(d)(3).

2 comments on JAR 34.110 were received addressing the following issues:

(23) 1 JAA-NAA proposed clarity for the definition of Fn and its consistent use.

Response: Comment not accepted. Fn refers to various operating modes. See for example JAR 34.300(d)(2). The use of Fn is consistent throughout the document.

(24) 1 JAA-NAA proposed to delete the reference to "definition"

Response: Comment not accepted. Definition helps to understand the meaning of the symbols.

1 comment on JAR 34.200 and 2 comments on JAR 34.210 were received addressing the following issues:

(25) 1 JAA-NAA needed some more explanation on the meaning of turbine engine powered aircraft for fuel venting applicability. It also proposed similar definition as in comment no.12.

Response: Comment accepted- text amended. See also comment 15

(26) 1 JAA-NAA proposes to move 34.210 to JAR-25 or JAR-23 since it contains design requirements for aircraft.

Response: Comment accepted- NPAs for JAR-23, JAR-25 have been submitted to the relevant Steering Groups.

3 comments on Subpart C were received addressing the following issues:

(27) 1 SG and 1 JAA-NAA made the general comments that according to its title, is only applicable to turbojet and turbofan engines, but the scope may be interpreted larger by some wordings used in through the text. Also the use of word 'applications' can be interpreted in a way that may enlarge the scope of the applicability.

Response: Comment accepted in part- text amended

(28) 1 JAA-NAA needed a clarification for a sub title used in the text.

Response: Comment accepted-text amended

1 comment on Subpart B and Subpart D were received addressing the following issues:

(29) 1 JAA-NAA needed a clarification for a sub title used in the text.

Response: See 28

1 comment on JAR 34.300(a) was received addressing the following issue:

(30) 1 JAA-NAA sought clarification about the use of sup-paragraphs to improve the readability. It also expressed its concern that granting exemptions was not addressed.

Response: Comment noted. The exemptions could be the subject for a future NPA and are currently being reviewed by ICAO.

2 comments on JAR 34.300(b)) were received addressing the following issues:

(31) 1 JAA-NAA proposed to delete the abbreviations and to make the use of subparagraphs for clarity reasons.

Response: Comment partly accepted- subparagraphs added

(32) 1 JAA-NAA proposed to delete the reference for certification of aircraft engine because the emissions can not be made part of the engine certification. See also NPA 21-3

Response: Comment not accepted. Certification of emission levels is included as part of engine certification. See NPA-E-47.

2 comments on JAR 34.300(d)(2) were received addressing the following issues:

(33) 1 JAA-NAA proposed to take a close look on wording "as agreed by the authority", since the percentages mentioned in paragraph 34.300(d)(2) gives no variation.

Response: Comment accepted- text amended

(34) 1 JAA-NAA urged some consistency for the use of words "thrust settings/ power settings".

Response: Comment accepted- text amended

1 comment on JAR 34.300(e)(2) and (e)(3) was received addressing the following issues:

(35) 1 JAA-NAA wanted clarification for the use of word "certificated" and "certification" through the document; is it about engine certification and JAR-34 certification?.

Response: Comment accepted- text amended

(36) 1 JAA-NAA sought clarification for the use of conditions "specified in" contra conditions "of" JAR 34.300(d)

Response: Comment accepted- text amended

1 comment on JAR 34.320 was received addressing the following issue:

(37) 1 JAA-NAA suggested to improve the readability of the paragraph by renumbering and lay out changes (see 39)

Response: Comment not accepted. The text is consistent with ICAO.

1 comment on JAR 34.320(b)(1) was received addressing the following issue:

(38) 1 JAA-NAA requested definitions for "type" and "model" in this context.

Response: Comment noted. Text is consistent with ICAO. Definitions for engine type and model may be sought from the engine steering group and may be the subject for a future NPA.

2 comments on JAR 34.320(b)(2) were received addressing the following issue:

(39) 1 JAA-NAA and 1 SG proposed to add an end date to clarify the applicability because otherwise the same engine could be the subject of dual incompatible requirements.

Response: Comment not accepted. The applicability is compatible with ICAO requirements. It should be noted that the requirements address both individual engine production and new models.

2 comments on JAR 34.320(b)(3) were received addressing the following issues:

(40) 1 JAA-NAA proposed to change wording "maximum rated output" to "rated output" and to delete the thrust value.

Response: Comment accepted partly. The thrust value is retained for clarification.

5 comments on JAR 34.330 were received addressing the following issues:

(41) 1 SG reminded that when the "emission certificate" is introduced it should be consistent with all JAR codes(21/34/E) and that basic data on engine emissions is provided by the engine manufacturer under the control o the authority of the engine TC holder. The applicability for piston engines was questioned.

Response: Comment noted. This is addressed in NPA 21-3 and NPA-E-47. Piston engines are not currently addressed in the ICAO Annex 16.

JAR 34.330(a)

(42) 1 JAA-NAA was concerned about the intent of emissions certification and asked also definition for "each engine type".

Response: See 32, 35 and 38

JAR 34.330(a)(2)

(43) 1 JAA-NAA requested consistency for the use of wordings thrust or power.

Response: Comment not accepted. Subpart C is not applicable to turboprop engines, hence the reference to power is not needed.

JAR 34.330(b)

(44) 1 JAA-NAA expressed its view about the emissions requirements during the engine certification process.

Response: Comment accepted- text amended

JAR 34.330(c)(2)

(45) 1 JAA-NAA was concerned about the intent of emissions certification and asked also definition for "each engine type".

Response: See 38, 41 and 42

4 comments on JAR 34.400 were received addressing the following issues:

JAR 34.400(b)

(46) 1 JAA-NAA proposed to delete the abbreviations and to make the use of sub-paragraphs for clarity reasons.

Response: Comment accepted partly- text amended, see 31

JAR 34.400(e)(2) and (f)(3)

(47) 1 JAA-NAA urged some consistency for the use of words "thrust settings/ power settings".

Response: Comment accepted- text amended

JAR 34.400(f)(2)

(48) 1 JAA-NAA wanted clarification for the use of word "certificated" and "certification" through the document; is it about engine certification and JAR-34 certification?.

Response: Comment accepted- text amended

JAR 34.400(g)

(49) 1 JAA-NAA sought clarification for the use of "specified in" contra "of" JAR 34.300(d).

Response: Comment accepted-text amended

4 comments on JAR 34.410 were received addressing the following issues:

(50) 1 JAA-NAA questioned the lack of equivalent paragraph here like 34.310(a)

Response: The equivalent paragraph to 34.310(a) is 34.400(a)

(51) 1 JAA-NAA requested to change the reference to another paragraph.

Response: Comment accepted- text amended

(52) 1 JAA-NAA commented on the relevance of the ACJ 34.350.

Response: See 51

(53) 1 JAA-NAA suggested to remove the sub-paragraph (a) because there is no subparagraph (b).

Response: Comment accepted- text amended

4 comments on JAR 34.420 were received addressing the following issues:

(54) 1 JAA-NAA suggested to remove the sub-paragraph (a) because there is no subparagraph (b).

Response: Comment accepted- text amended

(55) 1 JAA-NAA proposed to move the abbreviations (HC,CO,NOx) to be redundant with the text elsewhere

Response: Comment not accepted. Abbreviations retained for clarification. See also 31

(56) 1 JAA-NAA asked to change the reference to ACJ 34.420 instead of AJC 34.360

Response: Comment accepted- text amended

(57) 1 JAA-NAA questioned the relevance of the AJC 34.360

Response: Comment accepted- text amended

3 comments on JAR 34.430(a) was received addressing the following issue:

(58) 1 JAA-NAA suggested to harmonise this paragraph with 34.330(a) and delete the sub-title.

Response: Comment accepted- text amended

(59) 1 JAA-NAA renewed the comments made in 34.330(a)

Response: See 32, 35, 38 and 42

(60) 1 JAA-NAA proposed to change the reference from ACJ 34.370 to ACJ 34.430 and questioned the relevance of the ACJ 34.370.

Response: Comment accepted-text amended

1 comment on JAR 34.430(a)(2) and (3) were received addressing the following issues:

(61) 1 JAA-NAA proposed to remove (a)(2) and (a)(3) since the rated output already includes operation of afterburner.

Response: Comment not accepted. The reference cycle includes operation with and without afterburner.

1 comment on JAR 34.430(b) was received addressing the following issue:

(62) 1 JAA-NAA renewed and questioned the idea of the emissions requirements during the engine certification process.

Response: Comment accepted- text amended

1 comment on JAR 34.430(c)(2) was received addressing the following issue:

(63) 1JAA-NAA was concerned about the intent of emissions certification and asked also definition for “each engine type”.

Response: See 38, 41,42 and 45

4 comments on Appendix A were received addressing the following issues:

(64) 1 JAA-NAA suggested to delete the unknown subtitle

Response: Comment accepted- text amended. See 28

paragraph A34.1(b)

(65) 1 JAA-NAA requested some consistency to the wordings used through the text i.e. the word “thrust”.

Response: Comment not accepted. Appendix A is only applicable to turboprop and turbofan engines.

paragraph A34.2(a)

(66) 1 JAA-NAA proposed to delete the note to be in line with JAR-11 and to improve the wording for clarity reasons.

Response: Comment partly accepted. Wording not changed, the measurement of pressure ratio is part of emissions testing.

paragraph A34.2(b)

(67) 1 JAA-NAA raised the question about the effect of this JAR-34 impact for the JAR-E changes in engine certification process and proposed to rewrite the philosophy of the JAR-34. A question of correlation factors was also raised.

Response: Comment noted. This is addressed in NPA-E -47. The correlation factors relate to corrections which may be necessary where measurements can not be taken at the required reference point.

1 comment on Appendix B was received addressing the following issue:

(68) 1 JAA-NAA suggested to delete the unknown subtitle

Response: Comment accepted- text amended. See 28 and 64

3 comments on Appendix B paragraph B34.1 were received addressing the following issues:

(69) 1 JAA-NAA proposed to delete the note to be in line with JAR-11 which do not allow notes in section 1.

Response: Comment accepted- text amended

paragraph B34.1(a)

(70) 1 JAA-NAA asked clarity for the criteria for accepting or rejecting variations.

Response: Comment noted. The criteria for variations is a matter of discussions between the applicant and the authority.

paragraph B34.1(b),SN

(71) 1 JAA-NAA wanted clarification for the use of S/N here and for the definition of smoke number compared to 34.100.

Response: Comment not accepted. This is the reference from 34.100

9 comments on Appendix B paragraph B34.2 were received addressing the following issues:

paragraph B34.2(a)(5)

(72) 1 JAA-NAA requested to delete the words "to the Authority" because with a concept of DOA it might cause problems.

Response: Comment not accepted. Evidence must be supplied to the authority.

(73) 1 JAA-NAA urged some consistency for the use of words "thrust settings/ power settings".

Response: Comment accepted- text amended

paragraph B34.2(b)(2)

(74) 1 JAA-NAA proposed to delete the note to be in line with JAR-11.

Response: Comment accepted- text amended

paragraph B34.2(c)(1)

(75) 1 JAA-NAA proposed to delete the note to be in line with JAR-11 and to improve the editorial aspects in this paragraph by re-numbering.

Response: Comment accepted- text amended

paragraph B34.2(c)(1)(iii)

(76) 1 JAA-NAA expressed its concern about using commercial brand in the regulation.

Response: Comment noted. Text consistent with the ICAO

paragraph B34.2(c)(1)(iv)

(77) 1 JAA-NAA proposed to delete the note to be in line with JAR-11.

Response: Comment accepted- text amended

paragraph B34.2(c)(1)(vi)

(78) 1 JAA-NAA proposed to delete the note to be in line with JAR-11.

Response: Comment accepted- text amended

paragraph B34.2(e)(1)(ii)

(79) 1 JAA-NAA urged some consistency for the use of words "thrust settings/ power settings".

Response: Comment accepted- text amended

(80) 1 JAA-NAA proposed to delete wording "approved by the Authority" because they do not provide any useful additional information and conflict with the rules of JAR-34.

Response: Comment accepted- text amended

1 comment on Appendix B paragraph B34.4 (a) was received addressing the following issues:

(81) 1 JAA-NAA suggested deleting the first sentence because it is misplaced. It also proposed to re-number the sub-paragraphs.

Response: Comment accepted- text amended

33 comments on Appendix C were received addressing the following issues:

(82) 1 JAA-NAA suggested to delete the unknown subtitle (Appendix 3 of Annex 16, volume II).

Response: Comment accepted- text amended

paragraph C34.1

(83) 1 JAA-NAA proposed to delete the note to be in line with JAR-11 and requested criteria in the text for accepting and rejecting variations.

Response: Comment partly accepted. The variations are a matter of agreement between the applicant and the authority.

paragraph C34.2

(84) 1 JAA-NAA suggested to remove this paragraph to JAR 34.100.

Response: Comment noted. This may be the subject for a future NPA.

paragraph C34.2, exhaust nozzle

(85) 1 JAA-NAA wanted to delete the title for the consistency reasons.

Response: Comment accepted in part- definition amended

paragraph C34.2, noise

(86) 1 JAA-NAA proposed some clarification with this noise wording.

Response: Comment noted. Definition consistent with ICAO and understood as signal noise.

paragraph C34.3(a)

(87) 1 JAA-NAA wanted this paragraph totally re-written because it seems to duplicate and even introduce new requirements. Additionally it was proposed to delete the note to be in line with JAR-11.

Response: Comment partly accepted- text note amended. C34.3(a) does not introduce new requirements.

paragraph C34.3(a)(1)

(88) 1 JAA-NAA needed clarification for the use of “HC” and its meaning through the JAR-34.

Response: Comment accepted- text amended

paragraph C34.3(a)(4)

(89) 1 JAA-NAA proposed to delete the whole paragraph because it is not consistent with the definition of “oxides of nitrogen” in JAR 34.100.

Response: Comment not accepted. Text is consistent with JAR 34.100.

paragraph C34.3(b)

(90) 1 JAA-NAA reminded not to have references to AJC in the rule itself. Also the information to normalise the data is not the same as in E34.3 even when the appendices seem to be identical.

Response: Comment partly accepted- reference to ACJ amended. Information to normalise the data is consistent with ICAO.

paragraph C34.4(a)(3)

(91) 1 JAA-NAA suggested to delete the text in the brackets because it is simply a comment and to delete also the note to be in line with JAR-11.

Response: Comment agreed in principle- text amended.

paragraph C34.5

(92) 1 JAA-NAA proposed to delete the note to be in line with JAR-11 and additionally check if ACJ's contain “rule- material”.

Response: Comment accepted- text amended

paragraph C34.5(a)(1)(v)

(93) 1 JAA-NAA requested to delete the words “to the Authority” because with a concept of DOA it might cause interpreting problems.

Response: See 72

paragraph C34.5(b), paragraph C34.5(c) and paragraph C34.5(d)

(94) 1 JAA-NAA proposed to delete the note to be in line with JAR-11 and additionally check if ACJ's contain “rule- material”.

Response: Comment accepted- text amended

paragraph C34.6(a)(2)

(95) 1 JAA-NAA proposed to delete wording “prescribed by the Authority” because they do not provide any useful additional information and conflict with the rules of JAR-34. Also the use of wording “power setting” versus “trust setting should be consistent.

Response: Comment accepted- text amended

paragraph C34.6(b)

(96) 1 JAA-NAA proposed to delete the note to be in line with JAR-11.

Response: Comment accepted- text amended

paragraph C34.6(b)(1)

(97) 1 JAA-NAA proposed to delete wording “satisfy the Authority” because they do not provide any useful additional information and conflict with the rules of JAR-34. Maybe replace by word “ensure”.

Response: Comment accepted- text amended

paragraph C34.6(b)(2)

(98) 1 JAA-NAA reminded not to have references to AJC in the rule itself. Especially when referenced like “ to meet the requirements in the ACJ nr 3”.

Response: Comment accepted- text amended

paragraph C34.6(b)(3)

(99) 1 JAA-NAA reminded not to have references to AJC in the rule itself, the other solution is to move the material from ACJ to this paragraph.

Response: Comment accepted- text amended

paragraph C34.6(c)(1)(iv)

(100) 1 JAA-NAA found the use of footnote not acceptable in the light of JAR-11.

Response: Comment accepted- text amended

paragraph C34.6(c)(1)(ii)

(101) 1 JAA-NAA proposed delete the notes to be in line with JAR-11

Response: Comment accepted- text amended

paragraph C34.7(a)

(102) 2 JAA-NAAs found the use of footnote not acceptable in the light of JAR-11.

Response: Comment accepted- text amended

(103) 1 JAA-NAA also suggested to delete the definitions in this C34.7 and have them in ACJ nr.5 ,but then the status of ACJ nr.5 would have to be reconsidered.

Response: Comment not accepted. Definitions are related to this specific requirement

paragraph C34.7(a)(4)

(104) 1 JAA-NAA proposed to delete or replace the second sentence because it seems like a comment not a real requirement.

Response: Comment accepted- text amended

(105) 1 JAA-NAA wanted to clarify the meaning of the vertical bar behind "19" and behind "0.00639" in EI (NO_x) formula.

Response: Comment noted. The vertical bars are brackets

(106) 1 JAA-NAA also expressed the concern about the consistency of rule / advisory material in this paragraph.

Response: Comment accepted- text amended

paragraph C34.7(b)(1)

(107) 1 JAA-NAA proposed to move all definitions to one and unique paragraph and to check the consistency of the all definitions or appropriate denominations.

Response: Comment noted. Text is consistent with ICAO and may be the subject for a future NPA.

paragraph C34.7(b)(2)(iii)

(108) 1 JAA-NAA needed clarity to the term "Fn (corrected to ISA sea level conditions) and proposed to delete the note in the text to be in line with the JAR-11.

Response: Comment accepted- text amended

(109) 1 JAA-NAA proposed to define some wording used in this paragraph and raised the question about the effect of this JAR-34 impact for the JAR-E changes in engine certification process and proposed to rewrite the philosophy of the JAR-34.

Response: Comment noted. Text is consistent with ICAO and may be the subject for a future NPA. The relationship between the JAR-34 and JAR- E is addressed in NPA-E-47. Definitions for engine type and model may be sought from the engine steering group and may be the subject for a future NPA.

paragraph C34.7(b)(2)(iv)

(110) 1 JAA-NAA requested to correct the definition of F₀₀ to be consistent with 34.100.

Response: Comment accepted- text amended

paragraph C34.7(b)(2)(v)

(111) 1 JAA-NAA requested to check the consistency with definition of (engine pressure ratio/ reference pressure ratio) and proposed to delete the note in the text to be in line with the JAR-11.

Response: Comment accepted- text amended

paragraph C34.7(b)(3)(i)

(112) 1 JAA-NAA needed clarification for the wording " at each mode ISA thrust condition".

Response: Comment noted. Text is consistent with ICAO and refers to the operating modes prescribed in JAR 34.300(d)(2) and 34.400(e)(2)

paragraph C34.7(b)(4)

(113) 1 JAA-NAA suggested not to use recommendations in the rule itself and to provide official mathematical expression of the curves.

Response: Comment accepted- text amended

paragraph C34.7(c)

(114) 1 JAA-NAA proposed to totally rewrite the whole paragraph to be clear without any ambiguity.

Response: Comment accepted- paragraph deleted

1 comment on Appendix D was received addressing the following issue:

(115) 1 JAA-NAA proposed to review the industry fuel specs that are now used against perhaps outdated ICAO spec.

Response: Comment noted. This may be the subject of a future NPA.

21 comments on Appendix E were received addressing the following issues:

(116) 1 JAA-NAA suggested to delete the unknown subtitle (Appendix 3 of Annex 16, volume II).

Response: Comment accepted- text amended

paragraph E34.1

(117) 1 JAA-NAA proposed to delete the note in the text to be in line with the JAR-11 and if the content is needed then reformatted to "rule". Also the criteria for accepting or rejecting variations was left unclear.

Response: Comment accepted- text amended. The variations are a matter of agreement between the applicant and the authority.

paragraph E34.2

(118) 1 JAA-NAA commented that this paragraph is almost duplication of C34.2 and suggested to have only one paragraph for definitions.

Response: Comment not accepted. Definitions are related to this specific requirement

paragraph E34.3(a) and paragraph E34.3(a)(3)

(119) 1 JAA-NAA wanted to avoid the duplication of rules and wanted this paragraph totally re-written because it seems to duplicate and even introduce new requirements. Additionally it proposed to delete the note to be in line with JAR-11.

Response: Comment partly accepted- sub-paragraphs renumbered.

paragraph E34.3(b)

(120) 1 JAA-NAA reminded that reference to AJC in the rule is not acceptable. Also the information to normalise the data is not the same as in E34.3 even when the appendices seem to be identical.

Response: Comment accepted- text amended. Information to normalise the data is consistent with ICAO.

paragraph E34.5, E34.5(b), E34.5(c) and paragraph E34.5(d)

(121) 1 JAA-NAA NAA proposed to delete the note in the text to be in line with the JAR-11.

Response: Comment accepted- text amended.

paragraph E34.6

(122) 1 JAA-NAA noted that there is no equivalent C34.6(d) in the document. Why?

Response: Comment noted. The text is consistent with ICAO.

paragraph E34.6(a)

(123) 1 JAA-NAA suggested to use the same format than in C34.6(a). Also questions were raised about the consistency between this paragraph and C34.6(a)(1)/(2) and C34.5(a) and E34.5(a).

Response: Comment partly accepted- format changed, however consistency maintained with ICAO

paragraph E34.6(b)

(124) 1 JAA-NAA noted that there is no equivalent C34.6 in the document. Why?

Response: Comment noted. The text is consistent with ICAO

(125) JAA-NAA proposed to delete the second sentence because it appears to be simply a comment. Also notes were asked to delete from section one.

Response: Comment noted. The text is consistent with ICAO

paragraph E34.6(c)

(126) 1 JAA-NAA renewed its comments made to C34.6(d) and its various sub-paragraphs see 94-97.

Response: Comment accepted- text amended

paragraph E34.6(d)

(127) 1 JAA-NAA proposed to delete the note to be in line with JAR-11.

Response: Comment accepted- text amended

paragraph E34.7(a)(3)

(128) 1 JAA-NAA suggested to delete the definitions in this E34.7 and have them in ACJ nr.5 ,but then the status of ACJ nr.5 would have to be reconsidered.

Response: Comment noted. The text is consistent with ICAO. Definitions are related to this specific requirement.

(129) 1 JAA-NAA requested to delete the note in section one.

Response: Comment accepted- text amended

paragraph E34.7(a)(5)

(130) 1 JAA-NAA renewed the comments made to C34.7(a)(4)

Response: Comment accepted- text amended

paragraph E34.7(b)

(131) 1 JAA-NAA renewed the comments made to C34.7(b).

Response: Comment accepted- text amended

paragraph E34.7(c)

(132) 1 JAA-NAA renewed the comments made to C34.7(c)

Response: Comment accepted- text deleted

8 comments on Appendix F were received addressing the following issues:

(133) 1 JAA-NAA suggested to delete the unknown subtitle (Appendix 3 of Annex 16, volume II).

Response: Comment accepted- text amended

paragraph F34.1(a)(1)

(134) 1 JAA-NAA questioned the philosophy of the JAR-34 and the liaison to JAR E-330 (a)

Response: Comment noted. This is addressed in NPA-E-47. It should be noted that JAR-34 does not apply to piston engines.

paragraph F34.1(a)(2)

(135) 1 JAA-NAA urged clarification for the use of requirements for the authority not the applicant. Also the use of results by manufacturer is not clear.

Response: Comment accepted- text amended

paragraph F34.1(a)(6)

(136) 1 JAA-NAA questioned the philosophy and the liaison to JAR E engine certification.

Response: Comment noted. This is addressed in NPA-E-47

(137) 1 JAA-NAA wanted definition for " engine type" and needed clarification for the reference to "national authority".

Response: Comment partly accepted- word "national" deleted. See also 38

paragraph F34.2

(138) 1 JAA-NAA requested consistency of the various JAR codes (JAR-34 / JAR 21) and proposed to modify the text accordingly.

Response: Comment partly accepted- text amended. See also NPA 21-3.

paragraph F34.3

(139) 1 JAA-NAA proposed to delete the note to be in line with JAR-11.

Response: Comment accepted- text amended

paragraph F34.3(a) and F34.1(d)

(140) 1 JAA-NAA reminded that the interference with engine certification is totally unacceptable and suggested to delete the text.

Response: Comment noted. This is addressed in NPA-E-47. It should be noted that F34.3(d) refers to application not certification.

1 comment on AJC 34.200 and 34.210 were received addressing the following issues:

(141) 1 JAA-NAA suggested changes to fuel venting requirements to be better in line with ICAO annex 16 and FAR34.

Response: Comment accepted- text amended

3 comments on AJC 34.300(a) were received addressing the following issues:

(142) 1 JAA-NAA proposed to add a sentence to better define the applicability scope to exclude turboprop engines.

Response: Comment accepted- text amended

(143) 1 JAA-NAA noted that the text is not relevant in ACJ or in JAR-34; it should be in JAR-21.

Response: Comment accepted –ACJ deleted and JAR 34.300 amended

(144) 1 JAA-NAA wanted to have a better understanding of exemptions in this part of requirements and also the criteria of exemptions.

Response: See response to 143

1 comment on AJC 34.320 was received addressing the following issue:

(145) 1 JAA-NAA noted that the text is unnecessary duplicated in F34.2. Also this AJC appears to be a definition for “characteristic level” and so be in 34.100

Response: Comment noted. This may be the subject of a future NPA

1 comment on AJC 34.330 was received addressing the following issue:

(146) 1 JAA-NAA proposed to delete the whole paragraph because it either reproduces or triplicates the text already mentioned elsewhere.

Response: Comment noted. This may be the subject of a future NPA

1 comment on AJC 34.350, AJC 34.360, AJC 34.370 were received addressing the following issues:

(147) 1 JAA-NAA requested to delete these ACJs because there are no paragraphs with the same numbers in the section one. Also to avoid ambiguity; some material already exists elsewhere in the text.

Response: Comment partly accepted –ACJs not deleted but amended so as to cross refer correctly to the relevant requirements

1 comment on ACJ no.1 to Appendix C was received addressing the following issue:

(148) 1 JAA-NAA requested to not to have notes here and remove them to be part of the main text. Also the format “ italics” was questioned in the beginning of the paragraph 2.

Response: Comment noted –text amended

1 comment on ACJ no.2 to Appendix C was received addressing the following issue:

(149) 1 JAA-NAA requested to not to have notes here and remove them to be part of the main text.

Response: Comment noted –text amended

1 comment on ACJ no.4 to Appendix C was received addressing the following issue:

(150) 1 JAA-NAA requested to not to have notes here and remove them to be part of the main text. Additionally statement “described elsewhere” should be clarified.

Response: Comment noted –text amended. The “elsewhere” refers to Appendix C34.6(b)(3) and the text will be amended accordingly.

The same comment on ACJ no.12/3/4/5/ to Appendix E was received addressing the following issue:

(151) 1 JAA-NAA proposed to delete these AJCs because they only duplicate the ACJ no.1, 2,3,4,5, in Appendix C.

Response: Comment noted. This may be the subject of a future NPA

1 comment on ACJ no.6 to Appendix E was received addressing the following issue:

(152) 1 JAA-NAA proposed to delete this ACJ no. 6 because its simply duplicates the ACJ no.6 to Appendix C. Additionally requirements in E34.3(b) and C34.3(b) are not the same.

Response: Comment noted. This may be the subject of a future NPA

6 miscellaneous comments were received addressing the following issues:

(153) Editorial:

- (a) 1 JAA-NAA proposed editorial corrections to Appendix B – text amended.
- (b) 1 JAA-NAA proposed editorial corrections to B34.2– text amended.
- (c) 1 JAA-NAA proposed editorial corrections to C34.2– text amended.
- (d) 1 JAA-NAA proposed editorial corrections to figure labelling– text amended.
- (e) 1 JAA-NAA proposed editorial corrections to quote to Volume II second edition amendment 4 instead of volume II amendment 4– text amended.
- (f) 1 JAA-NAA proposed editorial corrections to 34.400(c)(2)–text amended.