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1. Summary of the outcome of the consultation
2. Individual comments and responses
1. Summary of the outcome of the consultation

The comments from state organisations (10) and from industry (14) on NPA 2020-06 were generally positive, with some suggestions for clarification and edits to the NPA text. 7 comments were directly related to the amendments proposed by ICAO.

Chapter 2 provides the individual responses to each comment.
2. Individual comments and responses

In responding to the comments, the following terminology has been applied to attest EASA’s position:

(a) **Accepted** — EASA agrees with the comment and any proposed amendment is wholly transferred to the revised text.

(b) **Partially accepted** — EASA either partially agrees with the comment, or agrees with it but the proposed amendment is only partially transferred to the revised text.

(c) **Noted** — EASA acknowledges the comment, but no change to the existing text is considered to be necessary.

(d) **Not accepted** — The comment or proposed amendment is not agreed by EASA.

(General Comments)

<table>
<thead>
<tr>
<th>comment</th>
<th>comment by: FOCA Switzerland</th>
</tr>
</thead>
<tbody>
<tr>
<td>comment</td>
<td>The Federal Office of Civil Aviation (FOCA), Swiss CAA, supports the proposed amendments and has no remark.</td>
</tr>
<tr>
<td>response</td>
<td>Noted</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>comment</th>
<th>comment by: LBA</th>
</tr>
</thead>
<tbody>
<tr>
<td>comment</td>
<td>The LBA has no comments.</td>
</tr>
<tr>
<td>response</td>
<td>Noted</td>
</tr>
</tbody>
</table>

### 3. Proposed amendments and rationale in detail — 3.1. Draft regulation (draft EASA opinion) — 3.1.3. Draft amendment to Commission Regulation (EU) No 748/2012 and to the related AMC and GM

<table>
<thead>
<tr>
<th>Page Number</th>
<th>Paragraph Number</th>
<th>Referenced Text</th>
<th>Comment/Rationale or Question</th>
<th>Proposed Resolution</th>
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</thead>
<tbody>
<tr>
<td>9</td>
<td>21.A.21(a) 3. II</td>
<td>have been demonstrated to be in compliance with the aircraft type-certification basis established and the environmental protection requirements designated and notified by the Agency as necessary to ensure the safe and environmentally compatible flight of the aircraft.’</td>
<td>How would this be demonstrated? There is no requirement in Annex 16, Vol. I or SARP for engines or propellers by themselves to &quot;demonstrate&quot; being in compliance with noise requirements based on the aircraft certification basis. Propellers and engines have their own type certificates whose certification do not include noise.</td>
<td>Remove requirement to &quot;demonstrate&quot; for engines and propellers.</td>
</tr>
<tr>
<td>21</td>
<td>21.B.85 (a)</td>
<td>The Agency shall designate and notify to the applicant the applicable environmental protection requirements for a type-certificate or restricted type-certificate for an aircraft or an engine.</td>
<td>Is not consistent with ¶21.A.21 (a) 3. ii.</td>
<td>Make consistent with ¶21.A.21 3. ii.</td>
</tr>
</tbody>
</table>

**Response**

Not accepted

The provision in 21.A.21(a)(3)(ii) is about the case where an aircraft TC is sought for and the engine does not hold its own TC. Then the applicant for the aircraft restricted TC needs also to demonstrate compliance with the engine-related
specifications in the aircraft TC basis and with the environmental protection requirements (aircraft and engines). The proposal in the NPA is to add ‘environmental compatibility’ in 21.A.21(a)(3)(ii), which is missing.

21.B.85(a):
21.B.85 is not inconsistent with 21.A.21(a)(3)(ii) since the basis for certifying the aircraft consists of the TC basis and the environmental protection requirements for the aircraft and engines. 21.B.85 provides the requirements for the aircraft and also for engines in case they are certified separately.

comment 13
comment by: DGAC France

GM 21.1.130(b)(4)(i) : the definition of the different applicability dates is not crystal clear and in particular the second "date of application for a type certificate". The difference between the first two definitions deserves to be better defined.

response
Accepted
GM 21.A.130(b)(4)(i) provides details on ‘Date of manufacture for the individual engine’ since 21.A.130(b)(4)(i) relates to the production requirements for engine exhaust emissions.


comment 17
comment by: DGAC France

AMC 21.A.130(b)(4)(i) 1 General : The AMC states that “In the case the competent authority has granted an exemption, the emissions requirements applicable are the regulatory levels from the previous corresponding standard.”
DGAC France supports this sentence albeit unspecified in ICAO Annex 16. Therefore we would be grateful if EASA can confirm that it is indeed how the Agency intends to implement the ICAO exemption provision.

response
Accepted
This sentence is extracted from ICAO Doc 9501 ‘Environmental Technical Manual’ Volume II. Since the reference to this document is provided in this AMC 21.A.130(b)(4)(i), the Opinion will propose to simplify the text to avoid any ambiguity by just referring to this Doc 9501.

comment 19
comment by: FNAM
FNAM (Fédération Nationale de l’Aviation Marchande):


"Terminological modifications and addition of documentary references following the ICAO CAEP / 11 meeting.

Position: Neutral impact."

response
Noted

comment 20
comment by: FNAM

FNAM (Fédération Nationale de l’Aviation Marchande):

GM 21.B.85(a)(5):

"Addition of this GM in order to provide assistance to aircraft engine manufacturers on the CO2 emission criteria.

Position: Positive Impact: This new point provides a documentary reference"

response
Noted

GM 21.B.85(a)(5) is related to the calculation of nvPM mass and number system loss factors for nvPM mass and number inventory and modelling purposes.


comment 6
comment by: AIRBUS

PAGE / PARAGRAPH / SECTION:
Page 21 / §21.B.85 a)

PROPOSED TEXT / COMMENT:
It is suggested to remove the “a)” in 21.B.85 a) (without changing the text of the paragraph).

RATIONALE / REASON:
For consistency reason with other Part 21 sections, a “a)” section is followed by a “b)” one. There is no “b)” in 21.B.85.

response
Accepted

21.B.85 b) will be added and marked as ‘reserved’ as a placeholder for future text developed in the context of the activities of another rulemaking task.
2. Individual comments and responses

comment 7  
**PAGE / PARAGRAPH / SECTION:**  

**PROPOSED TEXT / COMMENT:**  
Linked to previous comment, it is proposed to remove the “(a)” in GM 21.B.85(a)(5) without changing the text itself.  

**RATIONALE / REASON:**  
Same rationale as in previous comment.  

response  
Accepted  

21.B.85 b) will be added and marked as ‘reserved’ as a placeholder for future text developed in the context of the activities of another rulemaking task.


comment 21  
**comment by: FNAM**  
FNAM (Fédération Nationale de l'Aviation Marchande):  
For CS 34.1, 34.2:  
"Terminological modifications and addition of documentary references following the ICAO CAEP / 11 meeting.  
Position: Neutral impact."

response  
Noted

comment 22  
**comment by: FNAM**  
FNAM (Fédération Nationale de l'Aviation Marchande):  
For GM 34.1, GM 34.2:  
"Amendment of these GM in order to provide the documentary reference in order to comply with point 21.A.21.  
Position: Positive Impact: This new point provides a documentary reference."

response  
Noted
<table>
<thead>
<tr>
<th>Comment</th>
<th>Page</th>
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</thead>
</table>
| **23** | 3.3.1. Draft amendments to CS-36 | FNAM (Fédération Nationale de l'Aviation Marchande):  
For CS 36.1:  
"Terminological modifications and addition of documentary references following the ICAO CAEP / 11 meeting.  
Position: Neutral impact. " | **Noted** |
| **24** | 3.3.1. Draft amendments to CS-36 | FNAM (Fédération Nationale de l'Aviation Marchande):  
For GM 36.1:  
"Amendment of these GM in order to provide the documentary reference in order to comply with point 21.A.21.  
Position: Positive Impact: This new point provides a documentary reference. " | **Noted** |

**Comment 8**  
**PAGE / PARAGRAPH / SECTION :**  
Page 29 / GM CO2.1 Aeroplane CO2 emissions  
**PROPOSED TEXT / COMMENT :**  
It is suggested to modify the text of the first paragraph as follows:  
“Point 21.A.21 does not list the applicable requirements, but refers to point 21.A.20 that requests the applicant to demonstrate compliance with the environmental protection requirements designated by the Agency in accordance with point 21.B.85. Therefore, the environmental protection requirements which need to be complied with for CO₂ emissions are listed in point 21.B.85 of Annex 1 (Part 21) to commission Regulation (EU) No 748/2012.”
2. Individual comments and responses

<table>
<thead>
<tr>
<th>RATIONALE</th>
<th>REASON</th>
</tr>
</thead>
</table>
| Point 21.A.21 does not directly refer to environmental protection requirements of point 21.B.85, but refers to them through point 21.A.20. | response Accepted  
GM CO2.1, as well as GM 34.1, GM 34.2 and GM 36.1, will be amended to take this comment into account. |

comment 25  
FNAM (Fédération Nationale de l’Aviation Marchande):  
For CS CO2.1:  
"Terminological modifications and addition of documentary references following the ICAO CAEP / 11 meeting.  
Position: Neutral impact. "  
response Noted  

comment 26  
FNAM (Fédération Nationale de l’Aviation Marchande):  
GM CS CO2.1:  
"Amendment of these GM in order to provide the documentary reference in order to comply with point 21.A.21.  
Position: Positive Impact: This new point provides a documentary reference. "  
response Noted

7. Appendices | 7.1. Appendix 1 — ICAO Annex 16 Volume I amendments  

comment 4  
FAA  
<table>
<thead>
<tr>
<th>Page Number</th>
<th>Paragraph Number</th>
<th>Referenced Text</th>
<th>Comment/Rationale or Question</th>
<th>Proposed Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
<td>Annex 16, Volume I, Appendix 2, ¶3.7.4</td>
<td>The sum of the rising and corresponding falling response shall be $-6.5 \pm 1, \text{dB}$, at both 0.5 and 1 seconds. At subsequent times</td>
<td>The SLOW response exponential averaging process has historically required four half second measurements (2 seconds). What is the purpose for this change and has it been</td>
<td>Clarification of the intent and whether this is may result in an EASA difference to</td>
</tr>
</tbody>
</table>
The sum of the rising and falling responses shall be –7.5–6.5 dB or less at 1.5 seconds and –7.5 dB or less at 2 seconds and subsequent times relative to the steady-state levels. This equates to an exponential averaging process (SLOW weighting) with a nominal 1-second time constant (i.e. 2 seconds averaging time).

Approved by ICAO CAEP as a change to Annex 16, Volume I, Appendix 2?

Annex 16, Volume I.

Not accepted

This proposed amendment was agreed at CAEP/11 meeting. The NPA provides an extract from CAEP/11 Report (ICAO Doc 10126), Appendix A to the Report on Agenda Item 4, in its Appendix 7 for reference.

Your proposal was adopted by the ICAO Council at the fifth meeting of its 219th Session on 11 March 2020 (ICAO State Letter AN 1/17.14 – 20/28 was published on 9 April 2020).

The NPA proposes to amend Regulation (EU) 2018/1139 with the direct reference to Amendment 13 to Annex 16 Volume I and (EU) 748/2012 with direct references to sections of Annex 16 Volume I. Therefore, the final amendments as adopted by the ICAO Council will be automatically implemented in Regulation (EU) 2018/1139 and Commission Regulation (EU) No 748/2012. There is no need for EASA to file any difference.

**Comment by: AIRBUS**

**PAGE / PARAGRAPH / SECTION:**
§ 3.7.4 page 55 footer note

**PROPOSED TEXT / COMMENT:**
10. IEC 61260-1:2014... shall be replaced by 2.IEC 61260-1:2014
x2. IEC 61260-3:2016... shall be replaced by 10. IEC 61260-3:2016

**RATIONALE / REASON:**
Consistency with superscript referred to in the main text of §3.7.4
response Not accepted

The text in the NPA is an extract from CAEP/11 Report (ICAO Doc 10126), Appendix A to the Report on Agenda Item 4, and is provided as an appendix to the NPA for reference.

Consistent subscripts were adopted by the ICAO Council at the fifth meeting of its 219th Session on 11 March 2020 (ICAO State Letter AN 1/17.14 – 20/28 was published on 9 April 2020).

The NPA proposes to amend Regulation (EU) 2018/1139 with the direct reference to Amendment 13 to Annex 16 Volume I and Regulation No (EU) 748/2012 with direct references to sections of Annex 16 Volume I. Therefore, the final amendments as adopted by the ICAO Council will be automatically implemented in Regulation (EU) 2018/1139 and Commission Regulation (EU) No 748/2012.

comment 10 comment by: AIRBUS

PAGE / PARAGRAPH / SECTION :
§ 3.7.4 page 55

PROPOSED TEXT / COMMENT:
"The sum of the rising and corresponding falling response shall be..." to be changed to:
"The sum of the rising and corresponding falling responses shall be..."

RATIONALE / REASON:
For consistency / typo

response Not accepted

The text in the NPA is an extract from CAEP/11 Report (ICAO Doc 10126), Appendix A to the Report on Agenda Item 4, and is provided as an appendix to the NPA for reference.

The NPA proposes to amend Regulation (EU) 2018/1139 with the direct reference to Amendment 13 to Annex 16 Volume I and Regulation No (EU) 748/2012 with direct references to sections of Annex 16 Volume I.

Your proposed typo correction was not adopted by the ICAO Council at the fifth meeting of its 219th Session on 11 March 2020 (ICAO State Letter AN 1/17.14 – 20/28 was published on 9 April 2020).

comment 16 comment by: DGAC France

ICAO Annex 16 Volume I:
Several differences can be found between the amendments presented in the State Letter AN 1/17.14 - 20/28 dated April 9th 2020 (on A16V1) and this NPA. Among others:

- On page 48: Definition of Reference speed of sound is not consistent with ICAO "Speed of sound at a reference temperature conditions (25°C)."
- On page 52, the Note 2 of paragraph 3.7 Analysis systems is not consistent with the ICAO recommendation
2. Individual comments and responses

- On page 59, The formula is not consistent with ICAO doc : $\Delta 1 = 12.5 \log (H/150 \text{ m})$ versus $\Delta 1 = 12.5 \log (H/150)$
- On page 59, paragraph 5.2.3 : where $\Delta 2$ is the quantity in decibels that must be algebraically added versus ICAO where $\Delta 2$ is the quantity in decibels that shall be algebraically added
- NPA paragraph 7.1 is not consistent with ICAO SL 20/28 Appendix 2 changes on Chapter 3. Measurement of Aircraft Noise received on the ground : 3.6 Recording and reproducing systems : Note 1. Recommendation.— Level linearity of measurement system components should be tested according to the methods described in IEC 612651 as amended.
- NPA paragraph 7.1 is not consistent with ICAO SL 20/28 Appendix 2 changes on Chapter 3 (para 3.7.7), Chapter 4 (para 4.4.3, 4.5.3, 4.6.3), Chapter 8 (para 8.7.11) and Chapter 13 (para 13.7) : must versus shall

We shouldn't find these differences in the NPA text.

response Not accepted

The text in the NPA is an extract from CAEP/11 Report (ICAO Doc 10126), Appendix A to the Report on Agenda Item 3, and is provided as an appendix to the NPA for reference. These are not the final amendments as adopted by the ICAO Council at the fifth meeting of its 219th Session on 11 March 2020 since the State letters were not available before the publication NPA on 16 March 2020 (ICAO State Letter AN 1/17.14 – 20/28 was published on 9 April 2020).

However, the NPA proposes to amend Regulation (EU) 2018/1139 with the direct reference to Amendment 13 to Annex 16 Volume I, and Regulation (EU) No 748/2012 with direct references to sections of Annex 16 Volume I. Therefore the final amendments as adopted by the ICAO Council will be automatically implemented in Regulation (EU) 2018/1139 and Commission Regulation (EU) No 748/2012.


comment 14

comment by: DGAC France

ICAO Annex 16 Volume II :
A recurring difference can be found between the amendments presented in the State Letters AN 1/17.14 - 20/29 dated April 15th 2020 (on A16V2) and this NPA (Refer to DGAC France comments on 7.1. Appendix 1 — ICAO Annex 16 Volume I amendments). This difference is on §1.5 : "which is responsible for the production organisation of the engine" in EASA NPA, versus "having jurisdiction over the organization responsible for production of the engine," in State Letter.

We shouldn't find these differences in the NPA text.

response Not accepted
The text in the NPA is an extract from CAEP/11 Report (ICAO Doc 10126), Appendix A to the Report on Agenda Item 3, and is provided as an appendix to the NPA for reference. These are not the final amendments as adopted by the ICAO Council at the fifth meeting of its 219th Session on 11 March 2020 since the State letters were not available before the publication NPA on 16 March 2020 (ICAO State Letter AN 1/17.14 – 20/29 was published on 15 April 2020).

However, the NPA proposes to amend Regulation (EU) 2018/1139 with the direct reference to Amendment 10 to Annex 16 Volume II, and Regulation (EU) No 748/2012 with direct references to sections of Annex 16 Volume II. Therefore the final amendments as adopted by the ICAO Council will be automatically implemented in Regulation (EU) 2018/1139 and Commission Regulation (EU) No 748/2012.

### 7. Appendices | 7.3. Appendix 3 — ICAO Annex 16 Volume III amendments

<table>
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<tr>
<th>Page Number</th>
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</thead>
<tbody>
<tr>
<td>170</td>
<td>Note</td>
<td>Note.— In some States, where the certificating authority finds that the proposed change in design, configuration, power or mass is so extensive that a substantially complete investigation of compliance with the applicable airworthiness regulations is required, the aeroplane requires a new Type Certificate.</td>
<td>This note on a substantial design change is different than what is found in 14 CFR 21.19 which says &quot;Each person who proposes to change a product must apply for a new type certificate if the FAA finds that the proposed change in design, power, thrust or weight is so extensive that a substantially complete investigation of compliance with the applicable airworthiness regulations is required, the aeroplane requires a new Type Certificate.&quot;</td>
<td>Consider using the following change to more closely match that found in 14 CFR 21.19: &quot;Note.— In some States, where the certificating authority finds that the proposed change in design, power, thrust or weight is so extensive that a substantially complete investigation of compliance with the applicable airworthiness regulations is required, the aeroplane requires a new Type Certificate.&quot;</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>171</th>
<th>Type design. The set of data and information necessary to define an aircraft, engine or propeller type for airworthiness determination.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>This definition of type design is different than that found in FAA Order 8110.4C on page 57 which says &quot;The type design consists of the drawings, specifications, and information on the dimensions, materials, and processes necessary to define the product.&quot; Consider using the definition found in FAA Order 8110.4C.</td>
</tr>
</tbody>
</table>

Response

Not accepted
The text in the NPA is an extract from CAEP/11 Report (ICAO Doc 10126), Appendix B to the Report on Agenda Item 3, and is provided as an appendix to the NPA for reference. The NPA proposes to amend the Regulation (EU) 2018/1139 with the direct reference to Amendment 1 to Annex 16 Volume III, and Regulation (EU) No 748/2012 with direct references to sections of Annex 16 Volume III.

<table>
<thead>
<tr>
<th>Comment</th>
<th>15</th>
</tr>
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<tbody>
<tr>
<td><strong>comment by:</strong> DGAC France</td>
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<tr>
<td>ICAO Annex 16 Volume III:</td>
<td></td>
</tr>
<tr>
<td>A recurring difference can be found between the amendments presented in the State Letter AN 1/17.14 - 20/28 dated April 9th 2020 (on A16V3) and this NPA (Refer to DGAC France comments on 7.1. Appendix 1 — ICAO Annex 16 Volume I amendments) : &quot;which is responsible for the production organisation of the engine&quot; in EASA NPA, versus &quot;having jurisdiction over the organization responsible for production of the engine,&quot; in State Letter.</td>
<td></td>
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<tr>
<td>In addition, a difference is on Note in Part II, chap 2, after 2.1.3 (page 173) which is missing (in the State Letter, the note reads : Note.—Further guidance on issuing exemption, including guidance on the certificating authority or the competent authority having jurisdiction over the organization responsible for production of the aeroplane for granting exemptions, is provided in the Environmental Technical Manual (Doc 9501), Volume III — Procedures for the CO2 Emissions Certification of Aeroplanes.)</td>
<td></td>
</tr>
<tr>
<td>We shouldn’t find these differences in the NPA text.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Response</th>
<th>Not accepted</th>
</tr>
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<tbody>
<tr>
<td>The text in the NPA is an extract from CAEP/11 Report (ICAO Doc 10126), Appendix B to the Report on Agenda Item 3, and is provided as an appendix to the NPA for reference. These are not the final amendments as adopted by the ICAO Council at the fifth meeting of its 219th Session on 11 March 2020 since the State letters were not available before the publication NPA on 16 March 2020 (ICAO State Letter AN 1/17.14 – 20/30 was published on 9 April 2020).</td>
<td></td>
</tr>
<tr>
<td>However, the NPA proposes to amend Regulation (EU) 2018/1139 with the direct reference to Amendment 1 to Annex 16 Volume III, and Regulation (EU) No 748/2012 with direct references to sections of Annex 16 Volume III. Therefore the final amendments as adopted by the ICAO Council will be automatically implemented in Regulation (EU) 2018/1139 and Commission Regulation (EU) No 748/2012.</td>
<td></td>
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</table>