

## European Aviation Safety Agency

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### PRELIMINARY REGULATORY IMPACT ASSESSMENT

#### Task No. 21.040

#### Aircraft Noise Documents

Headings	Sub Headings
<p><b>1. Purpose and Intended Effect</b></p>	<p><b><u>a. Issue to be addressed:</u></b></p> <p>In recent years the ICAO Committee of Aviation Environmental Protection (CAEP) developed rules and guidance material on noise certification documentation as laid down in Annex 16 to the Chicago Convention, Volume I, Aircraft Noise, Fourth Edition, Amendment 8. Attachment G of Annex 16 contains guidelines for the administration of noise certification documentation proposing three different options. These options are:</p> <ul style="list-style-type: none"> <li>• <u>ICAO Option 1:</u> One document. A noise certificate where all information is contained in a single one page document.</li> <li>• <u>ICAO Option 2:</u> Two complementary documents. The first document attests noise certification, but is limited to identification of the aircraft and the statement of compliance. The second, complementary document contains additional information needed (such as noise levels), normally as an approved page or pages of the Aircraft Flight Manual (AFM) or the Aircraft Operating Manual (AOM).</li> <li>• <u>ICAO Option 3:</u> Three complementary documents. The first document is identical with the first document of ICAO Option 2. The second document is similar to the second document of Option 2 containing all possible noise configurations of the aircraft. The third document is issued in accordance with a regulated process. It identifies the current aircraft configuration by associating a unique identifier to the actual maximum take-off mass (MTOM).</li> </ul> <p>Commission Regulation (EC) No. 1702/2003, amended by Regulation (EC) No. 335/2007, prescribes that EU Member States have to use EASA Form 45 as noise certificate, which is in line with ICAO Option 1.</p> <p>Following an ongoing debate about noise certification documents six different options were discussed in the Agency's Advance-Notice of Proposed Amendment (A-NPA) 13-2006. The comments received were evaluated in the Comment Response Document (CRD) to that A-NPA. Main conclusion was that the majority of comments is in support of A-NPA Option 1 (which is the ICAO Option 1 or do nothing) and that also a substantive number of</p>

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	<p>comments are in favor of A-NPA Option 4 (this is the choice between the three ICAO options).</p> <p><b><u>b. Scale of the issue (quantified if possible):</u></b></p> <p>Member States have to issue noise certificates for every aircraft for which the rules as laid down in Annex 16 to the Chicago Convention, Volume I, apply. Having in mind that approximately 90000 aircraft with a certificate of airworthiness are registered in EASA states, one can roughly estimate that approximately at least 60000 shall hold a noise certificate.</p> <p><b><u>c. Brief statement of the objectives:</u></b></p> <p>The objective of an upcoming rulemaking activity would be to improve the system for noise certification documentation within the EU, if this is possible.</p>
<b>2. Options</b>	<p><b><u>a. The options identified</u></b></p> <ul style="list-style-type: none"> <li>• <u>A-NPA Option 1:</u> Do nothing. The implementing rules including EASA Form 45 are kept unchanged.</li> <li>• <u>A-NPA Option 4:</u> Amend Commission Regulation (EC) No. 1702/2003 (by changing EASA Form 45) in order to then have the choice between the three ICAO options.</li> </ul> <p><b><u>b. The preferred option selected (if possible):</u></b></p> <p>A-NPA Option 1 is the preferred option.</p>
<b>3. Sectors concerned</b>	NAAAs, owners, operators and airport authorities.
<b>4. Impacts</b>	<p><b><u>a. All impacts identified</u></b></p> <p><u>i. Safety</u></p> <p>If the provisions related to fuel planning are implemented correctly it is not expected that any of these options would have an impact on safety.</p> <p><u>ii. Economic</u></p> <p>In general, the economic impact of the options depends broadly on the following factors:</p> <ul style="list-style-type: none"> <li>• Whether non-EU operators use administrative systems that are different from the EU system, and whether those differences would lead to an unequal treatment of operators.</li> </ul>

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	<ul style="list-style-type: none"> <li>• Whether the different administrative systems have different economic effects on NAAs, operators or other parties (regardless of the non-EU systems).</li> <li>• Whether the different systems would lead to different overall costs of the administrative system.</li> </ul> <p>From the information available and received during the consultation process via A-NPA 13-2006 it is not possible for the Agency to quantify the magnitude of these factors. However, it can be stated that A-NPA Option 4, which gives applicants the choice between the three ICAO systems, would lead to a more complex and more costly administration for NAAs.</p> <p>In addition, for A-NPA Option 4 in order to gain the maximum flexibility, operators must be able to change their noise certification status without the need to involve NAAs. A regulated system should then be installed to audit the fair application and administration of the configuration changes. This would come at an additional cost.</p> <p><u>iii. Environmental</u></p> <p>It is generally agreed that the administrative system of noise certification has a positive effect on the environment. Low noise levels are an important marketing argument for aircraft manufacturers and operators and the noise certification system helps in mobilising market forces to reduce aircraft noise. High quality, accurate noise data that can be easily accessed helps to differentiate between different aircraft designs and promotes competition on this aspect.</p> <p>Following this line a simple and transparent system, such as the one page noise certificate of A-NPA Option 1, ensures that the noise levels are less influenced by day to day variations in operational mass and are therefore more representative of the general level of noise reduction technology incorporated in the design of the aircraft.</p> <p>On the other hand it had been argued that the environment would benefit from the greater flexibility of A-NPA Option 4 as this option contains an incentive to operate at lower take-off masses where possible; this is however only true if the airport authorities establish incentive schemes to do so.</p> <p>It can be concluded that the format of the noise certificate is probably not significant as regards possible environmental benefits.</p> <p><u>iv. Social</u></p> <p>There seems to be no reason to believe that the choice of a system would have any social effect other than those covered under the above economic section.</p> <p><u>v. Other aviation requirements outside EASA scope</u></p> <p>None identified.</p>

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	<p><u>vi. Foreign comparable regulatory requirements</u></p> <p>None identified. However, it should be noted that the more harmonisation is achieved within ICAO contracting states, the bigger the benefit concerning economic and administrative aspects would be.</p> <p><b><u>b. Equity and Fairness issues</u></b></p> <p>A-NPA Option 1 is simple to administer and fair to the ones involved. The uniform implementation of this option would provide the same conditions for all operators and therefore, guarantee at best equal treatment.</p> <p>On the other hand one could also state that A-NPA Option 4 retaining the flexibility allowed by ICAO would give the best guarantee of equal treatment for all operators when airport authorities implement incentive schemes. It seems however strange that rules applicable to the environmental certification of aeronautical products would have to be adapted to implement such schemes. It is for the airport regulations themselves to guarantee equal treatment to all operators regardless of the option/system used for aircraft noise documents and ensure that there is no discrimination against users of one of the options/systems. If airport rules do not fulfill these requirements, they have to be reconsidered in the light of applicable ICAO and other applicable principles of international law related to non-discrimination.</p>
<b>5. Summary and Final Assessment</b>	<p><b><u>a. Comparison of the positive and negative impacts for each option evaluated:</u></b></p> <p><u>A-NPA Option 1:</u></p> <ul style="list-style-type: none"> <li>• All information on the noise characteristics is readily available in one document. Little technical expertise is required to find the certificated noise levels of the aircraft, which helps the users of the information.</li> <li>• The prime purpose of noise certification is to ensure that the latest noise reduction technology is incorporated into aircraft design demonstrated by procedures which are relevant to day to day operations, to ensure that noise reduction offered by technology is reflected around airports. The purpose of noise certification (and the documents to be issued) is not to provide input to an airport incentive scheme. From that perspective A-NPA Option 1 can be considered as the more appropriate solution.</li> <li>• The certificated noise levels as measured according to Annex 16 to the Chicago Convention, Volume I, describe in an unambiguous way the noise characteristics of the aircraft.</li> </ul>

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	<ul style="list-style-type: none"> <li>• The option is expected to have a positive economic impact compared to A-NPA Option 4 (see above).</li> </ul> <p><u>A-NPA Option 4:</u></p> <ul style="list-style-type: none"> <li>• The option can be seen to be the most flexible solution for operators. This allows e.g. ICAO Option 3 to be used for aircraft where the operator has an economic or environmental need to vary the certificated noise data on a regular basis. However, this can also be achieved with A-NPA Option 1 using an additional arrangement between the operator and the airport. Such an arrangement could mean that e.g. the operator reports to the airport the actual take-off mass and, if appropriate, corresponding noise levels for every flight and based on that, the airport authorities calculate the landing fees for that specific flight. Following this concept, the Agency does not see a need to change the provisions of Part 21, Sub-Part I of Commission Regulation 1702/2003.</li> <li>• The original ICAO system as agreed in the CAEP process is retained.</li> </ul> <p><b><u>b. A summary of who would be affected by these impacts and issues of equity and fairness:</u></b></p> <p>The affected parties, NAAs, owners, operators and airport operators are all equally affected.</p> <p><b><u>c. Final assessment and recommendation of a preferred option:</u></b></p> <p>The reason for issuing noise certificates is to demonstrate that the aircraft complies with the noise requirements as laid down in Annex 16 of the Chicago Convention (as transposed into EC law by Article 6 of Regulation 1592/2002) and is therefore entitled to free movement as provided for by that Convention. With this document in hand the operator and/or the owner can demonstrate to airport or other authorities that the aircraft fulfils the necessary requirements. The noise certificate, although documenting technical information including the maximum take-off mass and noise level(s), is not primarily intended to provide input to an airport incentive scheme; in this context it is considered that the two considered options provide for the same results and therefore the same environmental benefits.</p> <p>A-NPA Option 1 is however less costly to administrate and provide for a better certainty on whether the aircraft is compliant with the applicable certification requirements. This was one of the main arguments that led to the initial choice of the Commission to introduce the future ICAO</p>

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	<p>Option 1 in its implementing rule (Part 21 sub-Part I).</p> <p>As a consequence the Agency sees no reason to initiate rulemaking to amend the current regulatory provisions applicable to the format of the noise certificate bearing in mind that the modulation of airport incentives schemes in accordance with the actual noise emitted by each aircraft is to be addressed in the related regulations.</p>