



Noise Certification Workshop

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SESSION 4: DOCUMENTATION

NEW ATTACHMENT G AND OTHER NEW ADMINISTRATIVE PROVISIONS

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SUMMARY

This paper addresses administrative changes that were proposed for inclusion in Amendment 8. Aimed at making noise information available in a clear and unambiguous way, ICAO CAEP proposed changes to Chapter 1 of Annex 16, Volume I and the addition of a new attachment providing guidance for issuance of noise certification documentation. Also provisions for temporary changes were incorporated. This paper explains the new proposed material.

1. INTRODUCTION

1.1 Aeroplanes and helicopters built today are required to meet the noise certification requirements as set by the certifying authorities of the world. They are normally based on Certification Standards adopted by the Council of ICAO. These are contained in Annex 16 — *Environmental Protection, Volume I — Aircraft Noise to the Convention on International Civil Aviation*. This paper addresses proposed changes to the administration chapter (Chapter 1) and the new Attachment G on noise certification documentation.

2. CHANGES TO CHAPTER 1

2.1 Based on current experience with existing noise certification documentation CAEP decided to clarify which information should be mentioned on the noise certificate. In order to make it easier to recognize the various data items on foreign noise documents, it was also agreed to use a uniform numbering system for the items. Since some States use the Certificate of Airworthiness (CofA) to declare that the aircraft meets the noise requirements and since the CofA also uses a numbering system (which could not easily be aligned with that for noise documents), it is stated that in such case the numbering system of the CofA prevails.

2.2 The items are listed in figure 1. It should be noted that not all items are applicable to every aircraft. For instance, a jet aircraft will not have any information in the propeller item. Note that there is an option to add additional information in a remarks box. In order to avoid confusion between different States the remarks box is not numbered.

2.3 Many States issue noise documentation in the form of a dedicated and separate “Noise Certificate”. Since all relevant noise information is on such document there was no need seen to maintain the requirement to mention the same information in the Airflight Manual (AFM). Therefore the obligation to mention the information in the AFM has been removed. Note that of course it is still possible to give this information in the AFM. See the section on noise documentation below for further information on this

2.4 The obligation to carry the noise documentation on board of the aircraft has been made more clear and has been moved from a note to the body of the language.

2.5 A reference to Annex 6 concerning the translation into English was added.

3. NEW ATTACHMENT G

3.1 In the study on existing administrative systems for noise documentation it appeared that there existed a wide variety of administrative systems for noise certification documentation. It was concluded that there were differing needs in different States and that it was not possible to propose just one format for standardisation of these. It was agreed to suggest three alternative standardized options:

- a) all information items contained in a single document, a stand alone noise certificate;
- b) two complementary documents of which the second would be the AFM or the Aircraft Operating Manual (AOM); and
- c) three complementary documents.

3.2 It was deemed too early to put standardisation in the main body of Annex 16. It was considered prudent to include the standardisation material as guidance material in an attachment such that States could gain experience with the system. At a later stage the information may be promoted to the main body.

3.3 The three systems do not differ in the amount of information that is transmitted to the users of the noise certification documentation. The final noise numbers derived from the different systems will be the same.

4. THE THREE OPTIONS FOR FORMATTING NOISE DOCUMENTATION

4.1 One document (« Noise Certificate »)

The first option is an administrative system in which the document attesting noise certification takes the form of a separate Noise Certificate that contains all information items as identified in Chapter 1, Section 1.5. A standard format is provided in Figure 1. States using this format may deviate from this where needed to meet their national requirements and/or to include any additional items. It should however be generally similar to Figure 1.

4.2 Two complementary documents

The second option is an administrative system consisting of two documents in which the first official document attests noise certification but is limited to identification of the aircraft and the statement of compliance. This can be either in the form of a (limited) Noise Certificate or in the form of the Certificate of Airworthiness for States that includes noise requirements in the airworthiness requirements. In this option the other information items should be transferred in a complementary standardised noise certification document, normally as a page of the AFM or AOM certified by the State of Registry. The format of this can be very similar to the format of the Noise Certificate in figure 1.

4.3 Three complementary documents

4.3.1 The third option is an administrative system consisting of three documents in which the first official document is identical to the first document of Option 2 attesting noise certification. The missing information items should be transferred in the second and third documents.

4.3.2 The second document, normally presented as a page (or set of pages) of the AFM or AOM, certified by the State of Registry, list(s) all the configurations operated or forecasted to be operated since the date of issuance of the page(s) in the fleet of aircraft. Each list of parameters corresponding to a given configuration is identified by a “configuration number”, for example “x”. Therefore the format given in figure 1 can equally serve for the items concerned, with the addition of the configuration number.

4.3.3 The third document of this option is issued according to a national regulated process. It States that a given serial number aircraft is operated in the configuration number “x” since the date of issuance of this third document.

4.4 Transparency

If multiple (sets of) documents are issued for one individual aircraft, it should be obvious from the documentation which (set of) document(s) is/are applicable at any given time.

5. TEMPORARY CHANGES

5.1 It was found that some States had a provision to allow operation of an aircraft for limited time without the obligation to determine the exact certification numbers. The Annex had no such provision which meant that in theory it would not be possible to operate in deviating configurations for a short time without the alteration of the noise documentation. This was considered an undue burden and it was agreed to create a provision for this.

5.2 In the following cases it is no longer needed to modify the noise documentation or even to show compliance with the noise requirements.

- a) gear down flight with one or more retractable landing gear down during the entire flight;

- b) spare engine and nacelle carriage external to the skin of the aeroplane (and return of the pylon or other external mount); and
- c) time-limited engine and/or nacelle changes, where the change in type design specifies that the aeroplane may not be operated for a period of more than 90 days unless compliance with the provisions of Annex 16, Volume I is shown for that change in type design. This applies only to changes resulting from a required maintenance action.

Note that the last sentence limits the possible use of this provision.

5.3 The State of Registry must recognize the use of these provisions. The provisions are only available to aircraft certified under Chapters 2, 3, 4 and 5.

6. CONCLUSION

6.1 In 2004 CAEP/6 proposed more guidance on the administrative aspects of noise certification. This led to recommendations for changes in Chapter 1 and to the inclusion of a separate attachment on noise documentation in Annex 16, Volume I.

—END —

For use by State of Registry		1. <State of Registry>		3. Document Number:	
2. NOISE CERTIFICATE					
4. Nationality and Registration Marks:		5. Manufacturer and Manufacturer's Designation Of Aircraft:		6. Aircraft Serial Number:	
7. Engine:			8. Propeller: *		
9. Maximum Take-Off Mass: kg.		10. Maximum Landing Mass:*kg		11. Noise Certification Standard:	
12. Additional modifications incorporated for the purpose of compliance with the applicable noise certification Standards:					
13. Lateral/Full-Power Noise Level: *		14. Approach Noise Level*	15. Flyover Noise Level*	16. Overflight Noise Level*	17. Take-off Noise Level*
Remarks					
18. This Noise Certificate is issued pursuant to Annex 16, Volume I to the Convention on International Civil Aviation. In respect of the above-mentioned aircraft, which is considered to comply with the indicated noise Standard when maintained and operated in accordance with the relevant requirements and operating limitations.					
19. Date of Issue..... 20. Signature.....					

Figure 1.

* These boxes may be omitted depending on noise certification Standard.