

# Response and Decision following CAA's Consultation on the Definition of Category D for Minimum Standards for Noise Modelling

CAP 1875c

A large, abstract graphic composed of overlapping, semi-transparent blue shapes in various shades, ranging from light cyan to deep navy blue. The shapes are curved and layered, creating a sense of depth and movement. The graphic occupies the lower two-thirds of the page.

**Published by the Civil Aviation Authority, September 2021**

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First published 2021

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## Executive Summary

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1. On 8 January 2020, the CAA published CAP 1875, a Consultation on CAA Minimum Requirements for Noise Modelling. The consultation closed on 4 March 2020 and we had expected to respond and publish our policy by Easter 2020. However, with the onset of the COVID-19 pandemic (preceded by the demise of FlyBe), we decided to defer any response for at least six months.
2. On 25 January 2021, the CAA published CAP 1875a, Interim Response to CAA Consultation on Minimum Standards for Noise Modelling, and CAP 1875b, a Consultation on the Definition of Category D for Minimum Standards for Noise Modelling. The consultation closed on 8 March 2021. This document sets out our decisions after taking into account the consultation responses.
3. We have decided to implement our preferred option to redefine Category D to use other sources of local information. This option retains a Category D along with the previously defined thresholds but requires airports in Category D to use local data on the position of aircraft either collected from ADS-B signals or from some other commercially available source.
4. We have decided to implement these new requirements, at the same time as publishing guidance and defining standards on which ADS-B data should be collected, how it should be cleaned, and for how long it should be retained. We will provide two weeks' notice for the implementation date, and will publish our guidance at the same time.
5. We have decided to apply Category E requirements to Category D airports in the interim.

## Chapter 1

# Introduction

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## Background

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- 1.1 On 8 January 2020, the CAA published CAP 1875<sup>1</sup>, a Consultation on CAA Minimum Requirements for Noise Modelling. The consultation closed on 4 March 2020 and we had expected to respond and publish our policy by Easter 2020. However, with the onset of the COVID-19 pandemic (preceded by the demise of FlyBe), we decided to defer any response for at least six months.
- 1.2 Having taken account of the consultation responses, on 25 January 2021, the CAA published CAP 1875a<sup>2</sup>, Interim Response to CAA Consultation on Minimum Standards for Noise Modelling, and CAP 1875b, a Consultation on the Definition of Category D for Minimum Standards for Noise Modelling. The consultation closed on 8 March 2021.
- 1.3 In this document, we describe the responses we received from this consultation and the decision we have made of the requirements for Category D after reviewing them all.

## What we were not consulting on in CAP 1875b and CAP 1875

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- 1.4 In CAP 1875, we described those of our regulatory duties for which we require stakeholders to submit noise analysis to us. CAP 1875 was mainly concerned with the sophistication of the computer modelling processes and data used by airports (or their consultants) to produce noise contours and other metrics when they engage with us and their local communities. It was not about deciding whether the current noise produced by aviation is acceptable, nor about whether changes to aircraft flight paths or volumes should be approved, or the means by which such decisions are made.
- 1.5 In CAP 1875a we assessed the responses to CAP 1875 and announced our decision to implement most of our proposals. The consultation in CAP 1875b was only intended to clarify a specific aspect of the way certain smaller airports model noise when applying for permissions from us, such as those to change airspace design.

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<sup>1</sup> [www.caa.co.uk/cap1875](http://www.caa.co.uk/cap1875)

<sup>2</sup> [www.caa.co.uk/cap1875a](http://www.caa.co.uk/cap1875a)

## Structure of this document

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- 1.6 This document should be read alongside CAP 2091<sup>3</sup>, our Policy on Minimum Standards for Noise Modelling, which was published following the consultation in CAP 1875a. This document and describes the Categories of Noise Modelling that the CAA now uses, one of which is Category D, the subject of the subsequent consultation in CAP 1875b.
- 1.7 This document should also be read alongside CAP 1875b<sup>4</sup>, our consultation on the Definition of Category D for Minimum Standards for Noise Modelling, which sets out in detail the options we considered for Category D, our assessment of them and our proposal. We do not repeat the contents of that consultation in this document.
- 1.8 In the remainder of the document, we will describe the responses received from CAP 1875b and our assessment of them.

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<sup>3</sup> [www.caa.co.uk/CAP2091](http://www.caa.co.uk/CAP2091)

<sup>4</sup> [www.caa.co.uk/CAP1875b](http://www.caa.co.uk/CAP1875b)

## Chapter 2

# The Consultation on the Definition of Category D for Minimum Standards for Noise Modelling

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- 2.1 The Consultation on the Definition of Category D for Minimum Standards for Noise Modelling (CAP 1875b) closed on 8 March 2021, by which time we had received five responses. Of these responses, one was from an aviation industry body, one from local government, two from community organisations, and one from individuals.

## Summary of options in the consultation

- 2.2 In CAP 1875b, we set out three options for re-defining Category D, which can be summarised as:

- Option 1: Remove Category D and have all airports below Category C conform to Category E criteria. This would mean many airports would not be required to use local data which could make their noise modelling more accurate.
- Remove Category D and lower the threshold for Category C. This would mean more airports were required to install expensive track-keeping systems.
- Option 3: Redefine Category D to use other sources of local information. This option retains a Category D along with the previously defined thresholds but requires airports in Category D to use local data on the position of aircraft either collected from ADS-B signals or from some other commercially available source.

- 2.3 We indicated that our preferred option was Option 3.

## Summary of responses

- 2.4 Of the five responses we received, three agreed with our proposal, one disagreed and one had no strong feelings either way.
- 2.5 The respondent who disagreed with our proposal commented that noise propagation is fundamentally affected by terrain and local ambient conditions, and that 'to qualify on the basis of out of context testing is not proportional'.
- 2.6 The respondents who agreed with our proposal commented that:

- We would like to see the totality of noise included in noise metrics which is currently not the case. We welcome taking local noise and surroundings into consideration as ICAO figures of aircraft do not seem to be accurate to commercial operations.
- The proposal puts the onus on the airport to collect and publish the data on track keeping, which is welcomed.
- Stakeholders need to be assured that airports would retain their correct Category Level and not move to a lower Category level to avoid the installation of costly noise modelling equipment, as stated in CAP 2091 point 4.3.
- Stakeholders and impacted communities should feel confident that the quality of the noise modelling data gathered is of a significant standard and from a sustainable reliable source. If the data is found to be unreliable or compromised, impacted communities need assurance that this data would always be rejected.
- With the CAA's decision not to use the comparison to 'similar' airports, with similar fleet mix size and range of destination, as a method for noise modelling purposes for Category D airports and the proposal to use data that could be rejected, would potentially impacted communities be advised, at the earliest possible time, that this is not as sophisticated as the methods used for Category A-C airports?

## CAA assessment of the responses

- 2.7 None of the responses we received to the consultation in CAP 1875b proposed that we use either our Option 1, Option 2, or some new option which we had not considered in the consultation.
- 2.8 Neither did they address the assessment we made of the three options which we proposed in CAP 1875b. However, we do note that three of the five respondents indicated that they agreed with our preferred option.
- 2.9 In response to the comment about the effect of terrain and ambient conditions, it is the CAA's experience that topography in general has little effect on measured and calculated noise levels in the UK. The main effect of topography (i.e. the changing of the distance between an aircraft and the ground) can be easily corrected for and thus measurements and modelling can take account of topography. Local ambient conditions affect aircraft noise in two ways: affecting aircraft performance, thereby changing the position of the noise source; and changing the propagation of sound through the air. Both factors can and should be accounted for using the internationally recommended calculation methods.



For example, measurements taken during the summer months will be more representative of average summer day noise exposure, as required by UK policy.

- 2.10 The remaining comments made in the responses do address other points related to noise modelling in general, although not CAP 1875b in particular, and we will take these into account as we implement our policy and when we consider other relevant aspects of noise modelling.

## CAA decision on Category D of our minimum noise modelling requirements

- 2.11 We have assessed the points made in the consultation responses and find no reason to amend our preferred option for Category D. We have therefore decided to implement our preferred option to **redefine Category D to use other sources of local information**. This option retains a Category D along with the previously defined thresholds but requires airports in Category D to use local data on the position of aircraft either collected from ADS-B signals or from some other commercially available source.
- 2.12 The CAA will provide guidance and define standards on which ADS-B data needs to be collected, how the data should be cleaned, and for how long it should be retained.
- 2.13 We have decided to implement these new requirements when we have issued the above-mentioned guidance, which will be published in due course. We will provide two weeks' notice of this implementation date. We have decided to continue to apply Category E requirements to Category D airports in the interim.
- 2.14 Our Policy on Minimum Noise Modelling Requirements has been published as CAP 2091. We will update this document to reflect our decisions in due course.