

Appendix 8A

Noise - Legislation, policy, and guidance

Noise from airports is considered in several planning policy documents and is subject to legislative control and regulation. At an international level, standards governing aircraft noise emissions are set by the International Civil Aviation Organization (ICAO). In the UK, the DfT and Defra are responsible for regulating the various environmental aspects of the aviation industry. At a local level, the local planning authority also has some control over the development of an airport through planning policy.

Legislative context

*The Civil Aviation Act*¹ is the principal legislation for the regulation of aircraft operations. It was updated in 2006 when additional powers to avoid, limit or mitigate the effects of noise connected with departures or arrivals of aircraft at an aerodrome were introduced.

*The Airports (Noise-related Operating Restrictions) (England and Wales) Regulations 2018*² implements into UK law the provisions of *European Union (EU) Regulation 598*³, aimed at enabling authorities to deal with aircraft noise within the international framework of the Balanced Approach. The Balanced Approach to noise management involves consideration of noise in the context of environmental benefit and economic incentives, but without imposing control measures that would be overly restrictive. *EU Regulation 598* makes it clear that for airports where a noise problem has been identified, additional noise abatement measures should be identified in accordance with the Balanced Approach method and should restrictions be required these should be cost-effective and be introduced only when other Balanced Approach measures are not sufficient to attain the specific noise abatement objectives.

*The Environmental Noise Directive (2002/49/EC)*⁴ (END) requires all Member States within the EU to produce Noise Maps and Action Plans for the main sources of environmental noise, including major airports. The requirements of the *Environmental Noise Directive* are transposed into the *Environmental Noise (England) Regulations 2006* (as amended)⁵. These regulations require major airports (such as LLA) to prepare Noise Maps and Action Plans.

¹ Civil Aviation Act, 2006 [online]. Available at: <https://www.legislation.gov.uk/ukpga/2006/34/contents> [Checked November 2020].

² The Airports (Noise-related Operating Restrictions) (England and Wales) Regulations, 2018 [online]. Available at: [https://www.legislation.gov.uk/uksi/2018/785#:~:text=The%20Airports%20\(Noise-related%20Operating%20Restrictions\)%20\(England%20and%20Wales\),in%20the%20content%20and%20are%20referenced%20with%20a%20notation](https://www.legislation.gov.uk/uksi/2018/785#:~:text=The%20Airports%20(Noise-related%20Operating%20Restrictions)%20(England%20and%20Wales),in%20the%20content%20and%20are%20referenced%20with%20a%20notation) [Checked December 2020].

³ Regulation (EU) 598/2014, [online]. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0598&from=EN> [Checked November 2020].

⁴ Directive 2002/49/EC, [online]. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32002L0049&from=EN> [Checked November 2020].

⁵ The Environmental Noise (England) Regulations, 2006 [online]. Available at: <http://www.legislation.gov.uk/uksi/2006/2238/contents/made> [Checked November 2020].

Planning policy context

National planning policy framework

Noise is considered by the *National Planning Policy Framework* (MHCLG, 2019). The NPPF advises that significant adverse impacts on health and the quality of life as a result of noise from new development should be avoided. It also advises that other adverse impacts on health and quality of life arising from noise from new development should be reduced to a minimum.

The NPPF states in Paragraph 180 that "Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:

- "mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;
- identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason."

Paragraph 182 advises that "*Planning policies and decisions should ensure that new development can be integrated effectively with existing businesses and community facilities (such as places of worship, pubs, music venues and sports clubs). Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or 'agent of change') should be required to provide suitable mitigation before the development has been completed.*" This should be taken into account when considering whether proposed development is an acceptable use of land.

The NPPF document does not refer to any other documents regarding noise other than the *Noise Policy Statement for England* (NPSE, 2010).

Noise Policy Statement for England (2010)

The *Noise Policy Statement for England* (NPSE) (Defra, 2010) forms the overarching statement of noise policy for England (and hence is of direct relevance to the assessment of planning applications under the NPPF for developments in England only). It sets out the long-term vision of the Government, as follows:

"[to] Promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development."

This vision is supported by the following aims, which are reflected in the provisions of the NPPF:

"Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:

- *Avoid significant adverse impacts on health and quality of life;*
- *Mitigate and minimise adverse impacts on health and quality of life; and*
- *Where possible, contribute to the improvement of health and quality of life."*

The Explanatory Note to the NPSE (paragraph 2.14) acknowledges that noise contributing to annoyance and / or sleep disturbance in human populations can have long-term consequences for health and wellbeing. It introduces three 'Effect Levels' relevant to the assessment of noise. These are:

- **NOEL: No Observed Effect Level** – this is the level below which no effect can be detected. In simple terms, below this level there is no detectable effect on health and quality of life due to the noise;
- **LOAEL: Lowest Observed Adverse Effect Level** – this is the level above which adverse effects on health and quality of life can be detected; and
- **SOAEL: Significant Observed Adverse Effect Level** – this is the level above which significant adverse effects on health and quality of life occur.

The aim of the NPSE is to avoid all noise occurring at the SOAEL level and to minimise, as far as possible, all noise occurring between the LOAEL and SOAEL brackets.

The NPSE states that it is not possible to have a single, numerical definition of the SOAEL that is applicable to all sources of noise in all situations, since the SOAEL is likely to be different for different noise sources, for different receptors at different times. Further research is required to increase understanding of what constitutes a significant adverse impact on health and quality of life due to noise, and the NPSE states that not stating specific SOAEL levels provides a suitable degree of policy flexibility until such evidence is available.

Planning Practice Guidance, 2019

The *Planning Practice Guidance-Noise*⁶ (PPG-N) (MCHLG, 2019), published by the Ministry of Housing, Communities and Local Government, was revised in July 2019. The PPG-N introduces a fourth effect level not included in the NPSE:

- **UAEL – Unacceptable Adverse Effect Level** – this is the level above which extensive and regular changes in behaviour and / or an inability to mitigate the effect of noise leading to psychological stress or physical effects occurs.

In cases where existing noise sensitive locations already experience high noise levels, PPG-N suggests that a development that is expected to cause even a small increase in noise may result in a significant adverse effect occurring even though little to no change in behaviour would be likely to occur.

PPG-N advises that the noise impact may be partially offset if the residents of those dwellings have access to:

- a relatively quiet façade (containing windows to habitable rooms) as part of their dwelling;
- a relatively quiet external amenity space for their sole use (e.g. a garden or balcony). Although the existence of a garden or balcony is generally desirable, the intended benefits will be reduced with increasing noise exposure and could be such that significant adverse effects occur;
- a relatively quiet, protected, nearby external amenity space for sole use by a limited group of residents as part of the amenity of their dwellings; and
- a relatively quiet, protected, external publicly accessible amenity space (e.g. a public park or a local green space designated because of its tranquillity) that is nearby (e.g. within 5 minutes walking distance).

The potential effect of an existing business on a new residential development being located close to it should be carefully considered as the existing noise levels from the business may be regarded as unacceptable by the new residents and subject to enforcement action. In the case of an established business, the policy set out in Paragraph 182 of the NPPF should be followed.

⁶ Gov.uk (2019) Planning Practice Guidance – Noise, [online]. Available at <https://www.gov.uk/guidance/noise--2> [Checked May 2020]

PPG-N links the increasing effect levels to an effect, perception by receptor and associated action, as summarised in **Table 8A.1**.

Table 8A.1 PPG-N – Summary of noise exposure hierarchy

Increasing effect level	Effect	Perception	Action
Less than NOEL (No Observed Effect)	No effect	Not noticeable	No specific measures
Greater than LOAEL (Lowest Observed Adverse Effect Level)	Adverse effect	Noticeable and intrusive	Mitigate and reduce to a minimum
Greater than SOAEL (Significant Observed Adverse Effect Level)	Significant adverse effect	Noticeable and disruptive	Avoid
Greater than UAEL (Unacceptable Adverse Effect Level)	Unacceptable adverse effect	Noticeable and very disruptive	Prevent

Source: Planning Practice Guidance – Noise, 2019

Aviation policy and guidance

Aviation 2050

The Government announced that the Department for Transport (DfT) is currently progressing work to develop a new strategy for UK aviation⁷ that will set out the long-term direction for aviation policy to 2050 and beyond.

In December 2018, the Government published *Aviation 2050: The Future of UK Aviation* – A consultation document seeking views until April 2019. Recognising the strong and continuing growth in demand for air services, the strategy will look to address what should constitute a framework for future sustainable growth and consider how the UK can balance environmental costs with the economic benefits of aviation.

The *Aviation 2050* notes on page 8 that it aims “*To achieve a safe, secure and sustainable aviation sector that meets the needs of consumers and of a global, outward-looking Britain*”. This aim is underpinned by the following six objectives:

- *Help the aviation industry work for its customers;*
- *Ensure a safe and secure way to travel;*
- *Build a global and connected Britain;*
- *Encourage competitive markets;*
- *Support growth while tackling environmental impacts; and*
- *Develop innovation, technology and skills.*

The “*increasing demand*” section (i.e. Paragraphs 1.17~1.21) clearly acknowledges the significantly increasing demand for flying in terms of transporting both passengers and freight. The need for further aviation capacity is highlighted and the Government is supportive of a new runway at London Heathrow Airport as well as other airports throughout the UK making best use of their existing runways.

⁷ Written Statement to Parliament on Airport Capacity and Airspace Policy – 2nd February 2017.

The Government essentially encourages making best use of existing runways throughout the UK and acknowledges the important role of airports beyond London Heathrow Airport. In particular, the Government recognises the economic benefits that airports can have on the local area to act as catalysts to encourage economic growth and development in the region. However, it also recognises the importance of appropriately managing the environmental impacts that airports could cause on surroundings particularly with respect to noise implications.

There is currently an ongoing consultation process regarding the 'Aviation 2050 – the future of UK aviation' document with initial results available for 'Legislation for enforcing the development of airspace change proposals'⁸ section, annex A of the consultation document. On the basis of the consultation, the government intends to:

- "to take forward new powers for the Secretary of State (delegable to the CAA) to direct that airspace change proposals are taken forward by airports or other relevant bodies;
- take forward its sanctions and penalties regime proposal; and
- give the CAA the responsibility for enforcing the sanctions and penalties regime."⁹

Further responses are to be published, leading to a final strategy for aviation growth.

Aviation policy framework

The *Aviation Policy Framework*¹⁰ (APF) was published in March 2013 and fully replaces the *2003 Air Transport White Paper*¹¹ as Government policy on aviation. The framework outlines objectives and principles to guide plans and decisions on airport developments, bringing together many related and discreet policies. By defining the Government's objectives and policies on the impacts of aviation, the APF sets out the framework within which decisions on aviation ought to be made to deliver a balanced approach to securing the benefits of aviation and to support economic growth.

The APF states that the "Government wants to see the best use of existing airport capacity" and that in the short-term, a key priority for Government is to continue to work with the aviation industry and other stakeholders to make better use of existing runways at all UK airports to improve performance, resilience and the passenger experience.

There has been no update to the *Aviation Policy Framework* (APF) 2013¹² which underpinned the noise assessment for the Original Permission, and hence the APF 2013 continues to act as the primary policy framework for this assessment. However, to ensure consistency with recent aviation policy guidance contained in the Consultation Response on *UK Airspace Policy: A Framework for balanced decisions on the design and use of airspace*¹³, noise levels have been reported down to 51 dB $L_{Aeq, 16hr}$ and 45 dB $L_{Aeq, 8hr}$ and these values are considered as the lowest-observed adverse-effect level (LOAEL) for daytime and night-time respectively.

⁸ Department for Transport (2019). Consultation Response on Legislation for Enforcing the Development of Airspace Change [online]. Proposals Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/841247/consultation-response-on-legislation-for-enforcing-the-development-of-airspace-change-proposals.pdf [Checked December 2020].

⁹ Department for Transport <https://www.gov.uk/government/consultations/aviation-2050-the-future-of-uk-aviation>

¹⁰ Department for Transport (2013). Aviation Policy Framework, [online]. Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/153776/aviation-policy-framework.pdf [Checked November 2018].

¹¹ Department for Transport (2003). The Future of Air Transport, [online]. Available at: <https://www.gov.uk/government/publications/the-future-of-air-transport> [Checked November 2018].

¹² Department for Transport (2013) Aviation Policy Framework, [online]. Available at <https://www.gov.uk/government/publications/aviation-policy-framework> [Checked March 2019].

¹³ Department for Transport and Civil Aviation Authority (2017) Consultation Response on UK Airspace Policy: A framework for balanced decisions on the design and use of airspace [online] Available at

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/653801/consultation-response-on-uk-airspace-policy-web-version.pdf [Checked October 2018].

Several guidance documents have also been updated since the Original Permission, including the *Air Navigation Guidance (ANG) 2017*¹⁴, which, took effect from 2018 and provides guidance to the CAA on the implementation of the changes to airspace policy. Furthermore, the CAA published CAP1616¹⁵ in response to the ANG, and this provides guidance for the assessment of noise required for an airspace change. Although the ANG 2017 and CAP1616 are considered best practice for the assessment of noise resulting from an airspace change, the guidance is not considered primary policy for this assessment on the basis that this is not an airspace change assessment, nor does it seek to alter established flight paths.

Alongside the updated airspace guidance, the Government published its *Consultation Response on UK Airspace Policy 2017*, which provides the reasoning behind policy changes and reaffirms that the Government’s objective for aviation noise management as being, to:

“Limit and, where possible, reduce the number of people in the UK significantly affected by the adverse impacts of aircraft noise”¹⁶.

Table 8A.2 presents a summary of aviation policy and guidance that has been updated between the Original Permission and this report.

Table 8A.2 Aviation policy and guidance relevant to the noise assessment

Policy reference	Policy information relevant to noise
Air Navigation Guidance, 2017 ¹⁷	<p>Section 70(2) of the <i>Transport Act 2000</i>¹⁸ requires the CAA to take account of any guidance on environmental objectives given to it by the Secretary of State (SoS) when carrying out its air navigation function. Following extensive review by the CAA, the <i>Air Navigation Guidance 2017</i> was introduced. The guidance is considered statutory guidance to the CAA on environmental objectives in respect of its air navigation functions. The Guidance defines the Government’s key environmental objective in respect to noise as:</p> <p><i>“Limit and, where possible, reduce the number of people in the UK significantly affected by adverse impacts from aircraft noise”.</i></p> <p>The Guidance goes on to define a daytime LOAEL of 51 dB $L_{Aeq,16hr}$ and 45 dB $L_{Aeq,8hr}$ for night-time. The Guidance also highlights altitude-based priorities and identifies that noise is the priority objective for aircraft below 4,000 ft., between 4,000 and 7,000 ft noise should be balanced with other environmental objectives and above 7,000 ft noise is no longer priority.</p>
CAP 1129: Noise Envelopes ¹⁹	<p>CAP 1129 introduces and defines the concept of a noise envelope and provides example of use at other airports. The guidance defines three approaches to setting an envelope including restricting inputs; restricting noise exposure and restricting noise impact. A noise envelope should also be clearly defined, be agreed by stakeholders, be legally binding, take account</p>

¹⁴ Department for Transport and Civil Aviation Authority (2017) *Air Navigation Guidance 2017*, [online]. Available at <https://www.gov.uk/government/publications/uk-air-navigation-guidance-2017> [Checked March 2019]

¹⁵ Civil Aviation Authority (2017) CAP1616 Airspace Design: Guidance on the regulatory process for changing airspace design including community engagement requirements, [online]. Available at <http://publicapps.caa.co.uk/modalapplication.aspx?appid=11&mode=detail&id=8127> [Checked March 2019]

¹⁶ Department for Transport (2017) *Consultation Response on UK Airspace Policy: A framework for balanced decisions on the design and use of airspace* [online] Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/653801/consultation-response-on-uk-airspace-policy-web-version.pdf [Checked February 2018].

¹⁷ Department for Transport and Civil Aviation Authority (2017) *UK Air Navigation Guidance 2017*, [online]. Available at: <https://www.gov.uk/government/publications/uk-air-navigation-guidance-2017> [Checked March 2019].

¹⁸ Transport Act, 2000, [online]. Available at: <https://www.legislation.gov.uk/ukpga/2000/38/contents> [Checked March 2019]

¹⁹ Civil Aviation Authority (2013). *Noise Envelopes, CAP 1129*, [online]. Available at: <https://publicapps.caa.co.uk/docs/33/CAP%201129%20Noise%20Envelopes.pdf> [Checked March 2019].



Policy reference	Policy information relevant to noise
	of noise and annoyance, consider modern technology and have aims proportionate to the airport.
CAP 1278: Aircraft Noise and Health Effects: Recent Findings²⁰	Published by the CAA, this report is an update to the previous <i>ERCD Report 0907</i> and highlights key research that has been published in aircraft noise and health effects since 2007, including sleep disturbance, cardiovascular disease, children's learning, and other health effects.
CAP 1506: Survey of Noise Attitudes 2014: Aircraft²¹	Latest UK-based evidence on the effects of aircraft noise exposure on social attitudes and annoyance. The results of this survey have been used to aid the setting of noise exposure thresholds in the <i>Air Navigation Guidance 2017</i> .
CAP 1616: Airspace Design Guidance²²	<p>CAP 1616 presents guidance to support the new process of assessing airspace change and outlines the process and metrics for environmental assessments, including noise and states that:</p> <p><i>"In the airspace from the ground to 4,000 ft, the Government's environmental priority is to minimise the noise impact of aircraft and the number of people on the ground affected by it".</i></p> <p>Furthermore, for airspace between 4,000 ft and 7,000 ft the focus is to continue minimising the noise impact on populated areas as well as balancing other requirements.</p> <p>CAP 1616a²³ provides technical guidance in support of CAP 1616. The guidance defines noise metrics and provides a method for calculating aircraft noise using a recognised and validated model.</p>
Consultation Response on UK Airspace Policy: A Framework for Balanced Decisions on the Design and use of Airspace²⁴	<p>The Consultation Response confirms: <i>"The government has issued revised Air Navigation Directions and Air Navigation Guidance to the CAA which will take effect from 1 January 2018"</i>. With regard to aircraft noise the Consultation Response sets out that:</p> <ul style="list-style-type: none"> • <i>"The Government's current aviation policy is set out in the Aviation Policy Framework (APF). The policies set out within this document provide an update to some of the policies on aviation noise contained within the APF and should be viewed as the current government policy."</i> • <i>"Consistent with the Noise Policy Statement for England, our objectives in implementing this [UK airspace] policy are to: ... limit and, where possible, reduce the number of people in the UK significantly affected by the adverse impacts from aircraft noise."</i>

²⁰ Civil Aviation Authority (2016). Aircraft noise and health effects: recent findings, CAP 1278, [online]. Available at: <https://publicapps.caa.co.uk/docs/33/CAP%201278%20MAR16.pdf> [Checked March 2019].

²¹ Civil Aviation Authority (2017). Survey of noise attitudes 2014: aircraft, CAP 1506, [online]. Available at: <https://publicapps.caa.co.uk/docs/33/CAP%201506%20FEB17.pdf> [Checked March 2019].

²² Civil Aviation Authority (2017) Airspace Design: guidance on the regulatory process for changing airspace design including community engagement requirements, CAP 1616, [online]. Available at: <https://publicapps.caa.co.uk/modalapplication.aspx?appid=11&mode=detail&id=8127> [Checked March 2019].

²³ Civil Aviation Authority (2017) Airspace Design: Environmental requirements technical annex, CAP 1616a, [online]. Available at: <https://publicapps.caa.co.uk/modalapplication.aspx?appid=11&mode=detail&id=8128> [Checked March 2019].

²⁴ Department for Transport (2017) Consultation Response on UK Airspace Policy: a framework for balanced decisions on the design and use of airspace, [online]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/653801/consultation-response-on-uk-airspace-policy-web-version.pdf [Checked March 2019].

Policy reference

Policy information relevant to noise

- *"The specific daytime and night-time values proposed for the LOAEL: 51 dB LAeq 16hr and 45 dB Lnight also received broad support" and therefore "We [the Government] will set a LOAEL at 51 dB LAeq 16hr for daytime noise and based on feedback and further discussion with CAA we are making one minor change to the LOAEL night metric to be 45 dB LAeq 8hr rather than Lnight to be consistent with the daytime metric."*
- *"The Government acknowledges the evidence from recent research which shows that sensitivity to aircraft noise has increased, with the same percentage of people reporting to be highly annoyed at a level of 54 dB LAeq 16hr as occurred at 57 dB LAeq 16hr in the past."*

Similar to the APF, 2012 The Consultation Response also confirms:

- The Government continues to expect airport operators to offer households exposed to levels of noise of 69 dB LAeq,16h or more, assistance with the costs of moving;
- The Government also expects airport operators to offer acoustic insulation to noise-sensitive buildings, such as schools and hospitals, exposed to levels of noise of 63 dB LAeq,16h or more; and
- *"As a minimum, the Government would expect airport operators to offer financial assistance towards acoustic insulation to residential dwellings which experience an increase in noise of 3 dB or more which leaves them exposed to levels of noise of 63 dB LAeq,16h or more."*