

This briefing sets out the noise impacts and costs associated with expansion at Heathrow. Noise pollution already affects over 700,000 people at the level which Government has determined causes significant annoyance.

Summary

- Up to **2.2 million people** would suffer from an increase in noise pollution by 2050.
- **653,900 people** will fall within the Department for Transport's 'significantly affected by noise' 54 decibel noise contour.
- About half of these, **323,684 people** will fall into this category for the first time (although will not know it yet).
- A further **419,803 people** already significantly affected by noise will receive a doubling of flights overhead (they also won't know this).
- Successive Governments have not set or defined an acceptable level of noise pollution – ignoring a request by the Transport Select Committee in 2018.
- Hundreds of thousands of school children across London and the South East are already exposed to aircraft noise above 54 decibels, the sound level threshold that has a negative effect on their behaviour, memory and cognitive development. Any expansion will only increase the harm caused by aircraft noise pollution.
- The very real negative costs of Heathrow expansion will fall on individuals as well as society as a whole. The physical and mental health of well over a million people is at risk, and this will have major implications for the NHS and social services.
- We remain concerned that support for expansion at Heathrow has emerged without knowing who will be impacted, for how long and what level of noise they will be exposed to.

Health Impacts of Noise

- The guidance in the [Survey of Noise Attitudes \(2014\)](#) showed that community sensitivity to noise has increased. More and more studies over the past decade have demonstrated that noise has negative health impacts at lower levels than previously understood.
- Communities around Heathrow are exposed to high levels of aircraft noise (above 63dB) and subsequently have a 24% higher chance of stroke, 21% higher chance of heart disease, and 14% higher chance of cardiovascular diseases compared to people exposed to low levels of aircraft noise ([Hansel et al, 2013](#)).
- [Shahrbabaki et al \(2021\)](#) report that sleep disturbance is linked to long-term cardiovascular disease and mortality.
- Similarly, [Münzel et al \(2021\)](#) describes for the first-time acute effects of noise on cardiovascular mortality, indicating that aircraft noise is a trigger for fatal acute coronary events. The need for policy action was further evidenced in [2025](#).
- Over 460 schools around Heathrow are exposed to aircraft noise levels that may impair learning and memory. Indeed, [Stansfeld et al \(2010\)](#) found that a 5dB increase in noise exposure is associated with a two-month delay in learning in UK primary school children.

Airports National Policy Statement (ANPS)

- The 2018 ANPS relied on highly optimistic assumptions concerning the transition to quieter (less noisy) and less polluting aircraft.
- The ANPS assumed a single 'minimise total' flight path scenario, which in fact is not compatible with the DfT's own key aviation noise policy – to reduce, minimise and mitigate significant adverse health and wellbeing impacts of aviation noise.
- Crucially the ANPS failed to include a robust financial sensitivity analysis relating to noise issues, despite being required to do so by the Treasury 'Green Book'. Thus, MPs were not fully aware of the negative impacts of the proposal ahead of the Parliamentary vote.

- The Health Impact Analysis accompanying the ANPS demonstrates that there will also be major adverse effects for people living in areas with poor health status, children and young people.
- The analysis also identifies a number of serious adverse impacts of a third runway in relation to reduced life expectancy, the numbers of people exposed to increased nitrogen dioxide concentrations and increased annoyance due to aircraft noise. However, these impacts were not included in the previous ANPS document, which is a major omission.

Amending the ANPS

- It is vital that the Government set out what constitutes significant adverse impacts of noise, to define an acceptable noise limit, to set out plans for the regulation of any noise envelope including recourse for breaches.
- As part of the review of the ANPS, the Government should undertake an assessment of the impact of noise by modelling the multiple flight paths associated with a third runway at Heathrow to ensure the potential noise impacts on local communities are properly understood.
- We would also welcome updated noise modelling to be undertaken to reflect a range of possible flight paths and include the assumptions about the future aircraft fleet mix.
- We believe that a condition should be included in the ANPS to ensure noise impacts are measured, during the Development Consent Order process, against an updated baseline that incorporates the Government's latest guidance and assumptions. This should include the specific metrics and thresholds against which the noise impacts of any proposal are assessed.

Independent Noise Body

- The Airports Commission recommended that an independent noise authority should be operational and making a judgement about expansion proposals.
- Supporting expansion at Heathrow without a robust and comprehensive assessment of the noise impacts risks exposing millions of people to noise pollution that damages their physical and mental health.
- The Independent Commission on Civil Aviation Noise was disbanded by the previous Government in 2022, just two years after it was established. We would welcome the re-establishment of an independent noise advisory body as soon as possible.

Key Questions

1. How many people will be exposed to increases in noise pollution should expansion proceed?
2. What is the total number of people that will be considered to be significantly adversely affected by expansion at Heathrow?
3. How many people will be exposed to noise at 45dB Lden - the level that WHO estimates that health impacts begin?
4. Will the Government commit to setting a minimum acceptable level of noise by which any expansion proposal can be judged?
5. What is the latest estimate of the number of primary schools/children who will be exposed to noise pollution above a) 45dB, b)51dB and c) 54dB?
6. What plans does the Government have to establish an independent noise authority?
7. Will the Government commit to updating the appraisal of sustainability to model multiple arrival and departure flight paths associated with a 3 runway Heathrow?
8. What plans does Government have to update the health costs of noise impacts in Transport Appraisal Guidance?