



Stop
Bristol Airport
Expansion

FACT SHEET 4: AIRCRAFT NOISE (v: 05.08.19)

The Fact Sheets are intended as a reference for issues raised by the threatened expansion of Bristol Airport and updated regularly. Comment and suggestions welcome.

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A Summary of the Problem

If full Airport expansion goes ahead, there will be **a flight movement on average every 3.5 minutes, 16 hours a day, an increase from 8 to 17 an hour. An extra 5,453 dwellings in North Somerset will be affected by airport noise. 4,000 night flights between the hours of 23:30 and 06:00 with no seasonal restrictions will damage mental health and wellbeing in regional communities, with greatest impact on children and the infirm.**

Impact of Aircraft Noise on Health

(1) Studies in Europe and the UK demonstrate that aircraft noise has substantial effects on cardiovascular disease including hypertension, ischaemic heart disease, heart failure and stroke. Aviation noise particularly at night causes increased blood pressure as stress hormone levels rise.

Aviation noise should not be considered in isolation. Atmospheric pollution engendered by a marked increase in road traffic in the vicinity of airports is likely to act in conjunction with the noise from aircraft to induce pulmonary disease in children experiencing low air quality.

(2.a) A German study revealed that a day-time average sound pressure level of 60 decibels increased coronary heart disease by 61% in men and 80% in women. A night-time average sound pressure level of 55 decibels increased the risk of heart attacks by 66% in men and 139% in women. Statistically significant health effects started from an average sound pressure level of 40 decibels.

(2.b) 'We have a night time noise limit for departing aircraft of 85 decibels (dB), as recorded at our centreline noise monitors, which is more stringent than our daytime limit of 90 dB.'

3. The World Health Organisation states that the learning of children in primary schools near airports is adversely affected by noise. Double glazed classrooms do not provide sufficient noise insulation.



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4. The Department of Health (DoH) 'recommends' that an independent Health Impact Assessment (HIA) be carried out prior to the approval of any planning application for airport expansion to ensure that the health of the local population is not put at risk by the commercial pursuit of economic benefits. However, HIAs are undertaken by airport operators and lack transparency and objectivity. Bristol Airport undertook its own HIA.

Bristol Airport and Noise

5. Responding to the Airport's chapter on noise in its planning application the Parish Councils Airport Association (PCAA) states that 'the whole chapter was inadequate with no examination of health related issues in the vicinity of the airport related to noise impacts. There was no discussion of the frequency of increased flights during the day and loss of tranquillity and being able to sleep undisturbed at night.'

6. Bristol Airport wants the right to operate **4,000 night flights between the hours of 23:30 and 06:00 with no seasonal restrictions**. A total of **5453 dwellings will be affected** by an increase in night noise if the Airport expands to accommodate 12 million passengers a year. The concentration of night flights in the summer season **will damage mental health and wellbeing in many communities affecting over 20,000 people**. The harm will be particularly damaging to children and the infirm.

7. Noise pollution currently extends to Keynsham and Yatton, yet the Airport has only produced modelling of ground, air and traffic noise at points exceptionally close to the airport. There is no modelling to the South West, where noise is often carried by prevailing winds. The Airport has also failed to respond to comments from Public Health England that tranquil spaces should be provided for regional communities.

8. The Airport has failed to assess the impacts of noise under 7,000 feet from the additional 24,000+ flights required to service 12 million passengers a year. Noise when planes are landing and taking off can be heard from as far away as Weston-super-Mare and Bath, but is only currently monitored along the line of the runway.

9. Aircraft noise will alter bird breeding patterns, disturb wildlife and damage sensitive ecosystems.

Other Information

10. ICCAN (Independent Commission on Civil Aviation Noise) was set up in January 2019. It states: 'It is clear that tensions are highly likely to arise when airport operations change or intensify in a way which changes how local communities experience noise impacts on the ground. (...) It (ICCAN) has been visiting a lot of airports, and also community groups. It plans to take two years to make its recommendations, and it will then decide if it needs to have some statutory powers – it currently has no powers to get the industry to do anything.'



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Note: A recent meeting between the PCAA and a commissioner from ICCAN revealed that Bristol Airport's 'noise measurements' are in fact only simulations and there is no real measurement of dB levels taking place by the airport.

Personal Testimony

11. *'I live directly in the flight path very close to Bristol Airport. I recently applied for one of their grants to go towards soundproofing our windows. They provided me with a map which is supposed to show which sound (dB) levels nearby homes experience. Ours allegedly falls into the 57dB area.*

We had a company come round to quote and they used sound recording equipment both outside and inside our home during both an EasyJet and Ryan Air flight and the noise levels reached significantly higher levels than they claim. [The recording chart available on request] It seems to me the airport is being extremely dishonest and misleading - probably because the levels of noise we are actually getting are considered harmful by the WHO etc. They must obviously base their data on outside dBs as they clearly couldn't claim to know what people heard inside their homes, so the 57dB they have decided affects us is more than 30 dB below what we are actually experiencing. I've contacted them to inform them...'

See many other similar comments on the North Somerset Planning website Application no 18/P/5118?OUT [link]

FURTHER INFORMATION

The following documents are available on the North Somerset planning website for the application [link]:

- Bickerdike Allen Partners LLP, 'Chapter 7: Noise and Vibration', Environmental Statement prepared on behalf of Bristol Airport Ltd to support a planning application for proposed expansion (Ref: 18/P/5118/OUT)
- Jacobs, review of Bickerdike Allen Partners LLP (Chapter 7: Noise and Vibration) on behalf of North Somerset Council (NSC).]
- Stop Bristol Airport Expansion, 'Noise Pollution from Bristol Airport: the real impact on health', [link]

REFERENCES

The numbers refer to paragraph numbers in the above documents

(1) *'The Harms to Health of Aircraft Noise'*, *British Medical Journal* (June 2019).
<https://blogs.bmj.com/bmj/2019/06/18/the-harms-to-health-caused-by-aviation-noise-require-urgent-action/>

(2.a) *Tödlicher Lärm* (tr. 'Deadly Noise') *Der Spiegel* (14 December 2009).
<http://magazin.spiegel.de/EpubDelivery/spiegel/pdf/68167761>

(2.b) *'About Us: Noise Management'*, *Bristol International Airport website*
<https://www.bristolairport.co.uk/about-us/environment/noise-management>



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(3 & 4) <http://www.euro.who.int/en/health-topics/environment-and-health/noise/environmental-noise-guidelines-for-the-european-region> (October 2018).

(5 & 7) 'Revised Comment on the Independent Review of Noise & Vibration' Parish Councils Airport Association (2019), Comments on Planning Application 18/P5118/OUTS.

(6) 'Planning Application 18/P/5118/OUT: PCAA Submission to North Somerset District Council (2019)', 'Inadequacies of the Environmental Statement' (para.30,31).

(8) 'Planning Application 18/P/5118/OUT: PCAA Submission to North Somerset District Council (2019)', 'Noise' (para.6).

(9) 'Planning Application 18/P/5118/OUT: PCAA Submission to North Somerset District Council (2019)', 'Health' (para.12).

(10) 'ICCAN. Candidate Information Pack', Department of Transport (2019).

(11) Testimony from local resident (name supplied, withheld on request)

END

LT (Editor)

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