

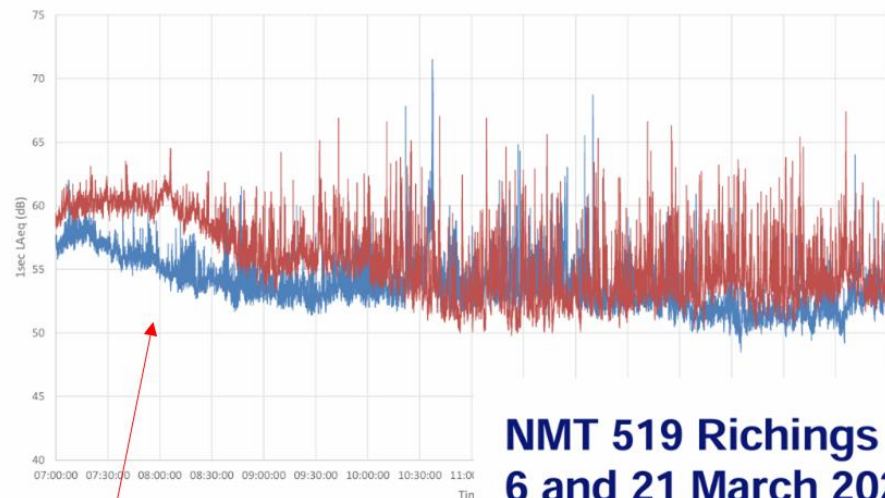
Noise Monitoring & Modelling Around Heathrow

Community Questions raised from previous
presentations and NACF discussion

23rd July 2025

Impact of Heathrow Operations on Local Noise Environment

NMT 519 Richings Park 1 sec LAeq 6 and 21 March 2025



Data presented at last NACF
comparing Heathrow
Closed vs Normal operations

NMT 519 Richings Park 1 sec LAeq 6 and 21 March 2025



Increased Noise –
most noticeable 7-9am

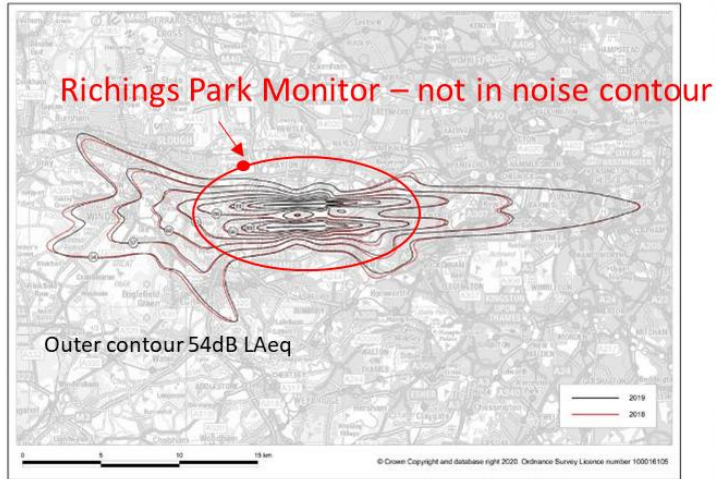
- 6 March (Heathrow normal westerly operations)
Total LAeq 8h: 56.7 dB
- 21 March (Heathrow closed)
Total LAeq 8h: 54.3 dB

} **Difference is ~2.5dB**
3dB represents a doubling
of sound levels

Communities Conclusion - When Heathrow is in operation it nearly doubles the already higher noise levels in the local environment

Local Actual Noise vs Modelled Noise

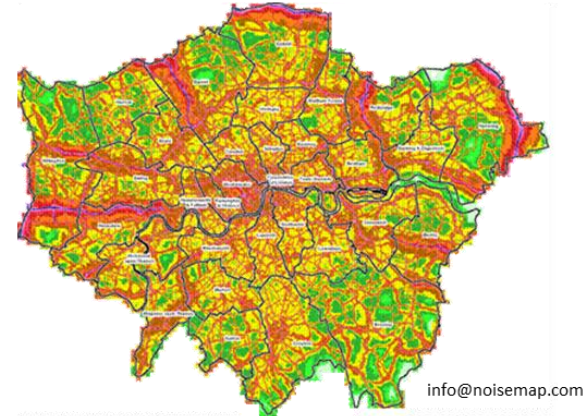
Figure B3 Heathrow 2019 and 2018 average summer day 54-72 dB actual modal split LAeq,10h noise contours



ERCD REPORT 2001

Appendix B.11

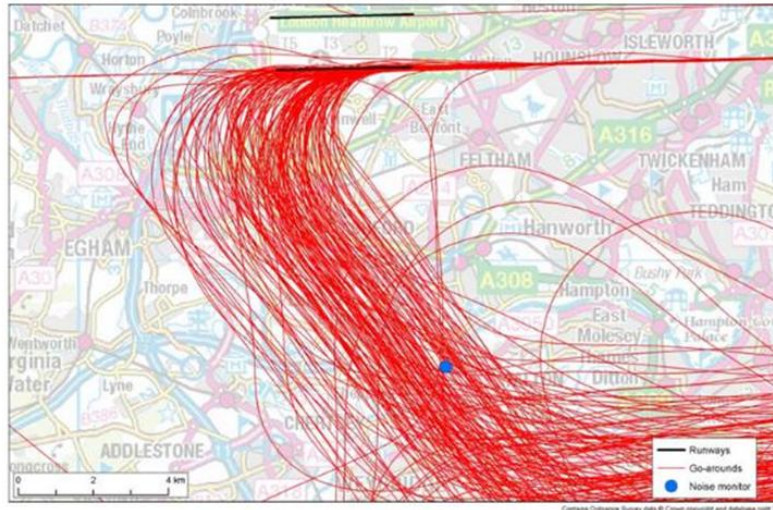
Defra Road Noise Map for London



1. Is ground noise from the airport accounted for in noise modelling contours and DfT TAG (financial) modelling?
2. Is increased background noise from activity caused by Heathrow e.g. on M25 & M4 and all surrounding roads accounted for in modelling contours (and DfT financial modelling)?
3. Is the existing background noise level taken into account? Aviation noise adds to existing noise so average LAeq etc are actually higher in urban environments like Heathrow/London. Not the case for a rural based airport.
4. How significant does CAA/ERCD see the effects from the points raised in questions 1-3 for noise modelling for Heathrow/London's urban environment vs a rural based airport?

Aborted Landings

Figure 7 Flight tracks for arrival go-arounds passing over the Shepperton noise monitor and surrounding area during the study period



Example of aborted landings from Shepperton Noise report 26/3 to 6/8/24 (expect similar picture to the North)

- Does noise modelling include the ~1000 aborted landings a year?
- Aborted landings are very loud, using full available thrust to 3000ft for safety reasons and so very disturbing for those impacted.

Helicopter Routes

Figure 8 Flight tracks for a typical week of helicopter operations

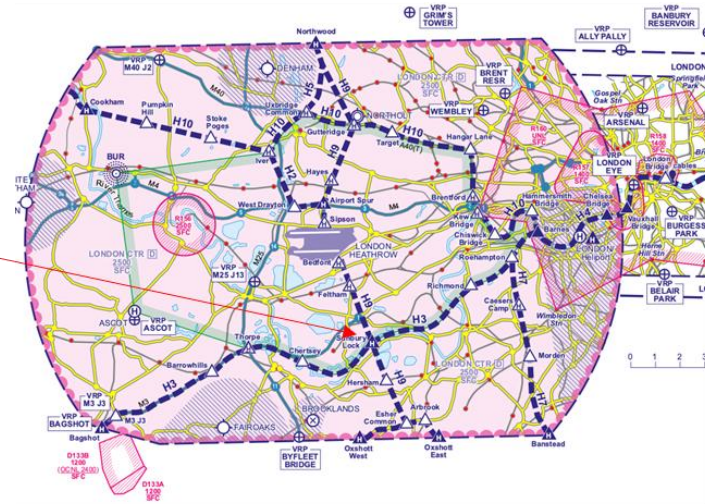
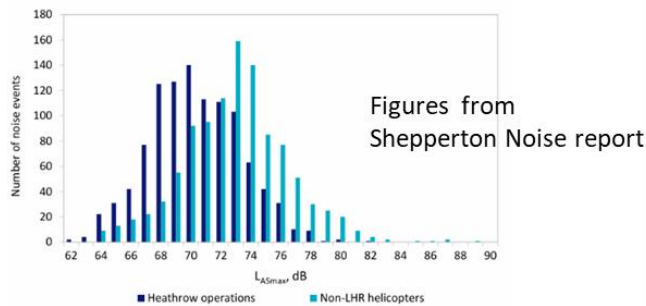


Figure 15 Distribution of $L_{A_{max}}$ noise levels for Heathrow and helicopter operations



Figures from Shepperton Noise report

Helicopter Routes

- Helicopter routes fly below Heathrow flight paths (can Heathrow/NATS increase flight path height so helicopters can fly higher?)
- Helicopters can as noisy as planes if forced to fly low
- Is the noise from Helicopters or General Aviation included in modelling?

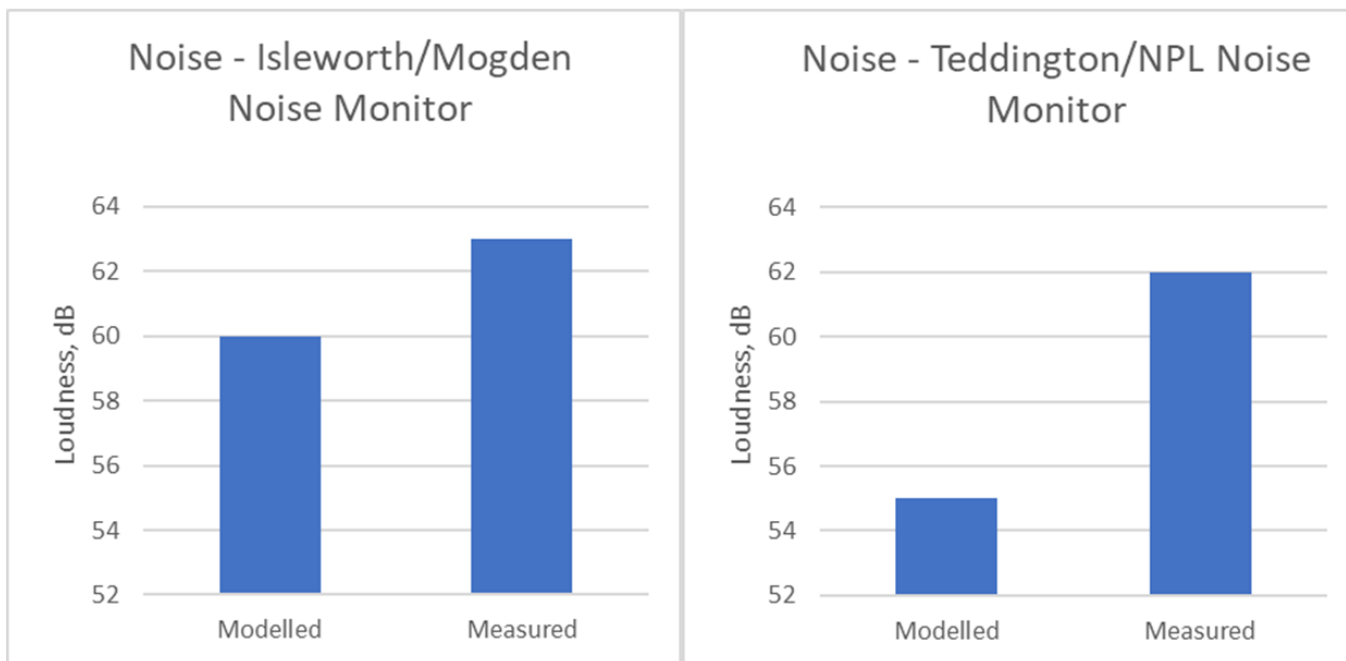
Other Airport Impacts



- Routes into City have to fly under Heathrow arrivals and so are noisier (can Heathrow increase arrivals heights?)
- Is the noise from other airports i.e. City included in modelling contours?

Issues with Noise modelling around Heathrow – Sideways Noise looks higher than modelled but does not get validated

Data for A380 stage length to Middle East, Isleworth & Teddington monitors are at side of flight path



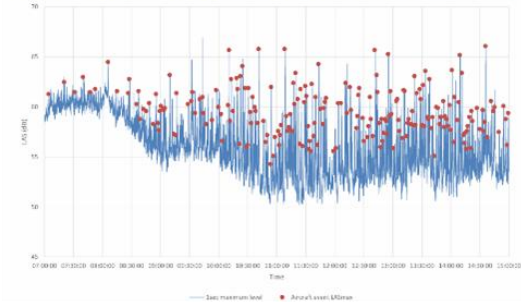
Noise Model Validation – Centre vs Sideline

Our understanding;

- Validation around Heathrow looks to be only checked at the centre of flight paths – not at the sides
- At the sides an International Standard is used to calculate the attenuation but it is noted it is only valid for grassy/soft acoustic environments
- The urban environment around Heathrow and into London is very different to this requirement
- There are limited physical models to describe these ground surface effects so noise levels need to be confirmed by measurement and validated against models presently used around Heathrow
- This is important because many people experience noise at the side of flight paths – especially where this noise extends further for louder planes such as the 777, A330, A340 and A380

ANEEM Monitor Set Up

NMT 519 Richings Park 6 March 2025



- Threshold Duration
 - a) What are the minimum duration thresholds used for regulatory noise monitors?
 - b) what is used for ANEEM noise monitors. We understand 'A event must be of at least 5 seconds for the ANEEM sensors' but is this the minimum duration actually used for all ANEEM sensors?
- Given the data showing events at Richings Park on March 6th would we now expect to see in webtrak the circle over the noise monitor turn to a square as an event has been identified - can this be checked?
- When the ANCON noise model presents a loudness contour/event is this for 0.5-1 second event (suggested by AI internet searches) or an event of 5 seconds (or more) as measured by monitors?
- Please can a list of how long the various monitors have been in situ in their locations, especially the mobile monitors be provided - and what the programme for review and further roll out may be?
- Would the Cranford School Monitor (515) and Stanwell Moor (523) be good monitors to record ground noise? The Cranfield School monitor is also close to some engine testing areas to record night noise?

Summary of Questions and Implications

- What is included in Noise Modelling and subsequent financial impacts – if modelling does not include all noise sources, negative impacts of any expansion are much bigger, while reducing ATMs would be more beneficial?
- Do CAA/ERCD accept that Heathrow's urban location makes ignoring any sources of noise much worse for residents especially near the airport but also for those already in a noisier urban environment like London?
- Can Heathrow flight paths heights be increased to allow helicopters and City airport traffic to fly higher? (e.g. as part of ASM)
- Is Modelling of sideways noise validated – many people may be much more impacted than modelling suggests?
- ANEEM monitors
 - does webtrak identify events based on ANEEM?
 - are event duration thresholds vs what is presented in modelling contours consistent?
 - list of durations mobile monitors have been in place, review programme and use for ground and night noise monitoring?