

# Community Views on effectiveness of Heathrow's initiatives & research on respite

**Noise and Airspace Community Forum**

Thursday 27<sup>th</sup> July 2023

# What is respite?

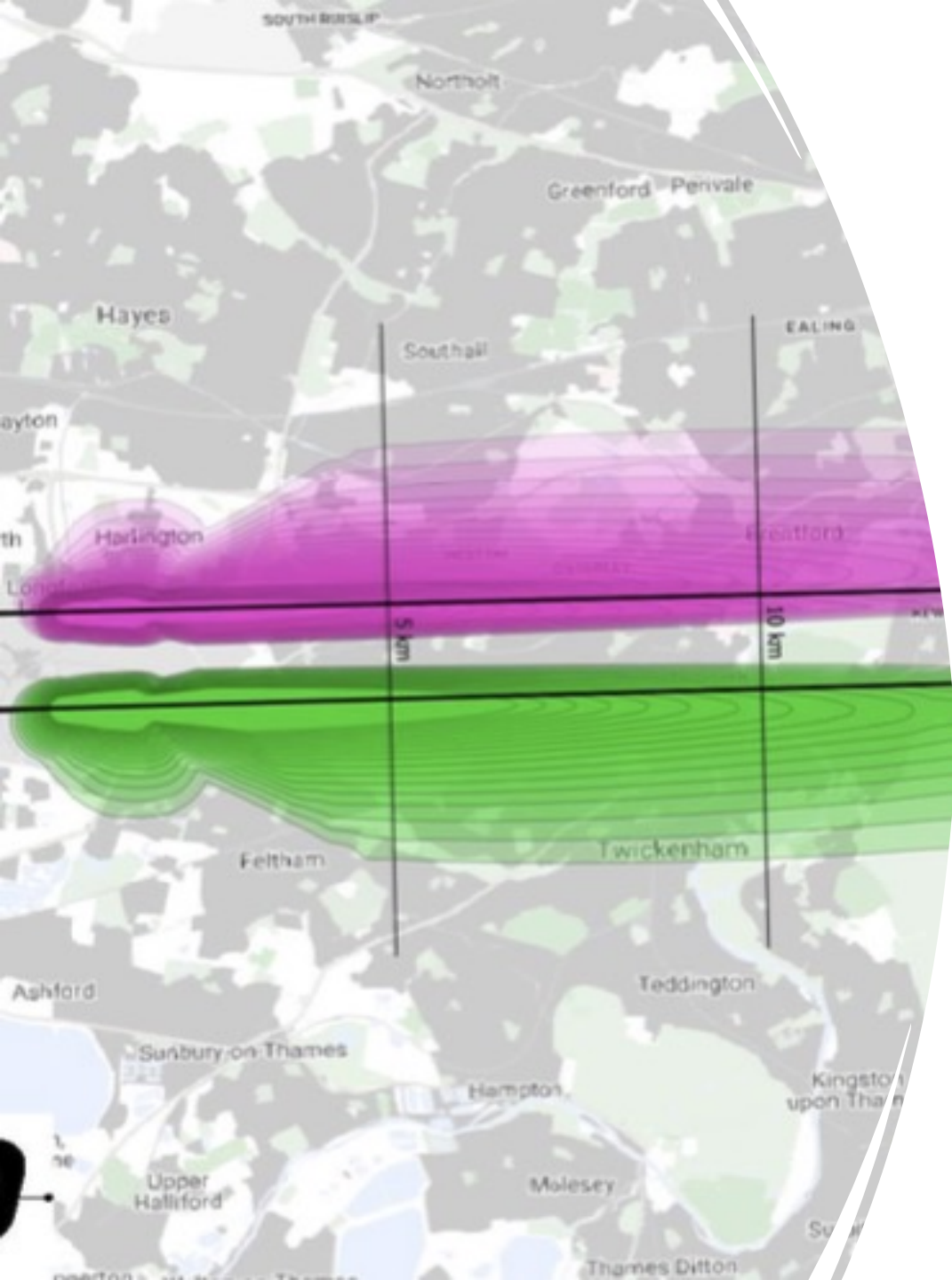
*“a short break or escape from something difficult or unpleasant” (OED)*

**Respite** can be defined as a scheduled relief from aircraft noise for a period of time. (Respite Working Group 2014-16). The key distinction is that this form of respite is planned.

**Relief** can be defined as a break from or a reduction in aircraft noise.

The principle of noise respite is to provide planned and defined periods of perceptible noise relief to people living directly under a flight path. (Air Navigation Guidance, 2017)

- An effective (valued) break from aviation noise.
- An essential tool to avoid/mitigate aviation’s significant adverse physical and mental health impacts as well as quality of life around Heathrow.
- A key factor in avoiding noise blighted and stigmatised neighbourhoods under flight paths, with social, economic and property implications.



# Respite at Heathrow

- When on westerlies, Heathrow operate runway alternation running in 2-week cycles where the runways used arrivals and departures switch at 3pm.
- This provides some respite from noise in the morning one week and the evening the next.
- **No legal or regulatory framework** that governs/administers respite.
- Limited or no respite for communities close to the sides and ends of runways (e.g Heathrow villages, Feltham, Iver).
- Alternation does not benefit overflown communities further out (e.g. Lewisham, Camberwell).
- No respite at all on easterlies.

# Effectiveness of Heathrow Initiatives

- Communities place value on the respite delivered by runway alternation.
- However, the relief achievable through operational mode is dependent on wind direction. This form of respite is not predictable (not technically respite?). Respite by alternation and operational mode are needed.
- For communities close to the airport, there is a lack of clarity about how Heathrow measure the noise communities experience. If this is not done and understood, then no proposed initiatives to reduce noise can be successfully measured. (Also respite excludes ground operations).
- Previous work by Anderson Acoustics found that **valued respite** requires around a **9dB LAmax difference** – this seems reasonable and clearly understandable to communities. However, 9dB is in practical terms very difficult to achieve near an airport.
- Use of averages i.e. LAeq does not define loudness levels or periods of overflight and varies significantly depending on route usage. **How does this help to measure impact of respite?**

# Effectiveness of Heathrow Initiatives

- Need to continue to use N metrics to help provide a more understandable assessment of overflight and impact of respite.
- Operational Safety Instruction (v.12, Oct 22) – **‘reasonable period of respite’ – any late flight must operate by 1am**
  - 0100 – 0600 hours
  - Is 5 hours considered reasonable? (Actually 3.5 hours when arrivals included).

## Questions

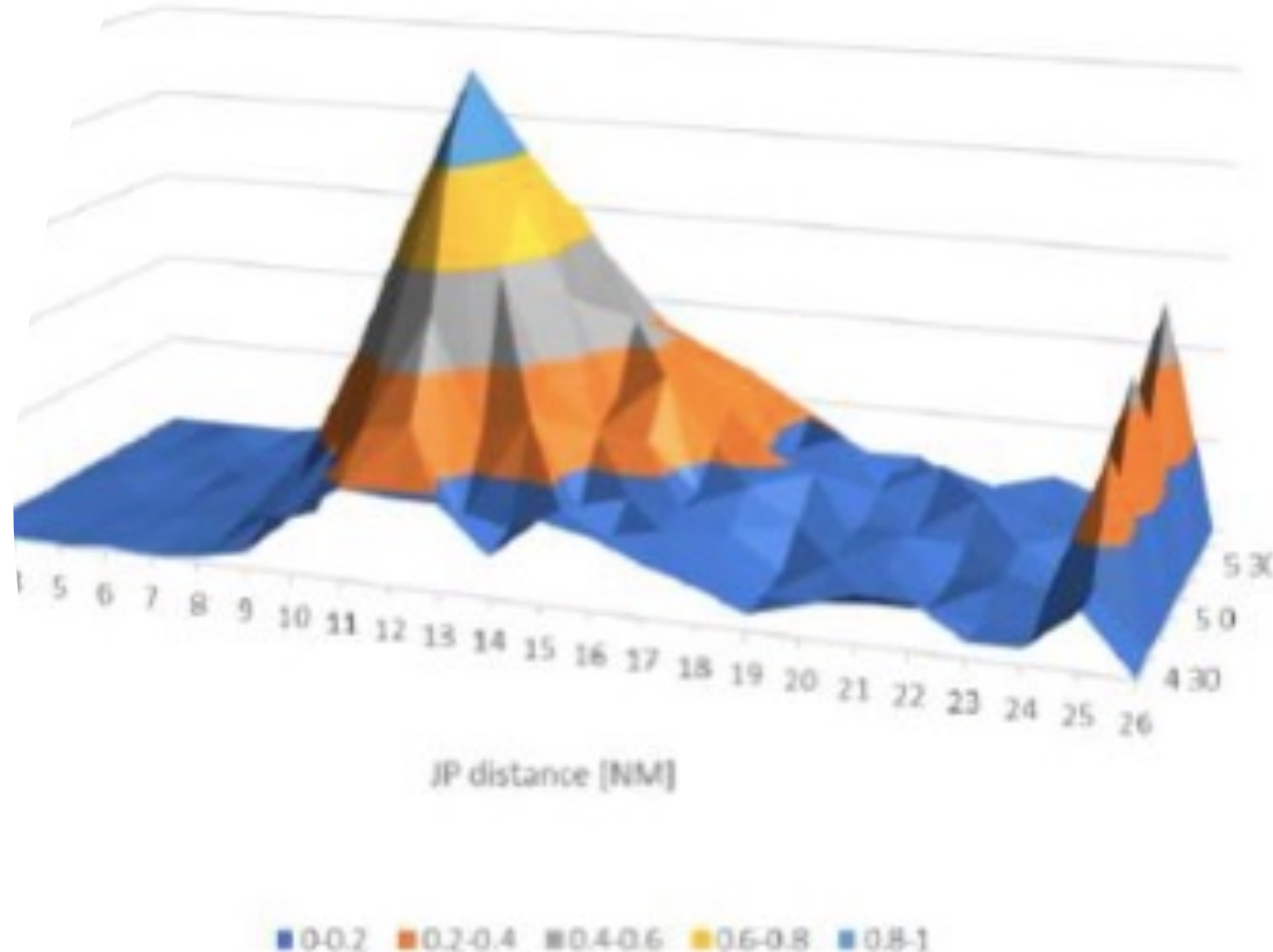
- Currently no lateral separation on departures - is this possible with flight path alternation?
- Ending merges of flight paths or extending the point at which they merge - could aide communities further from the airport.
- What consideration being given to heights of departure and impact of noise to each side of flight path?
- What assessment made of overflight track density? Can greater sharing of numbers be achieved? Is respite efforts targeting communities most impacted?

# Respite Research

- Range of research undertaken over past 10 years – Anderson Acoustics, SYSTRA, Arup, CAA etc...

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- Progress on RWG recommendations?
  - Community value of respite still not properly understood?
    - Blocks of time, dispersal, alternating flight paths
  - HACAN paper (2019) on greater dispersion on departures, varying pre 6am arrivals paths & staggered joining point of arrivals – NO PROGRESS?

Distribution of AVG JP per day in 10 min bins

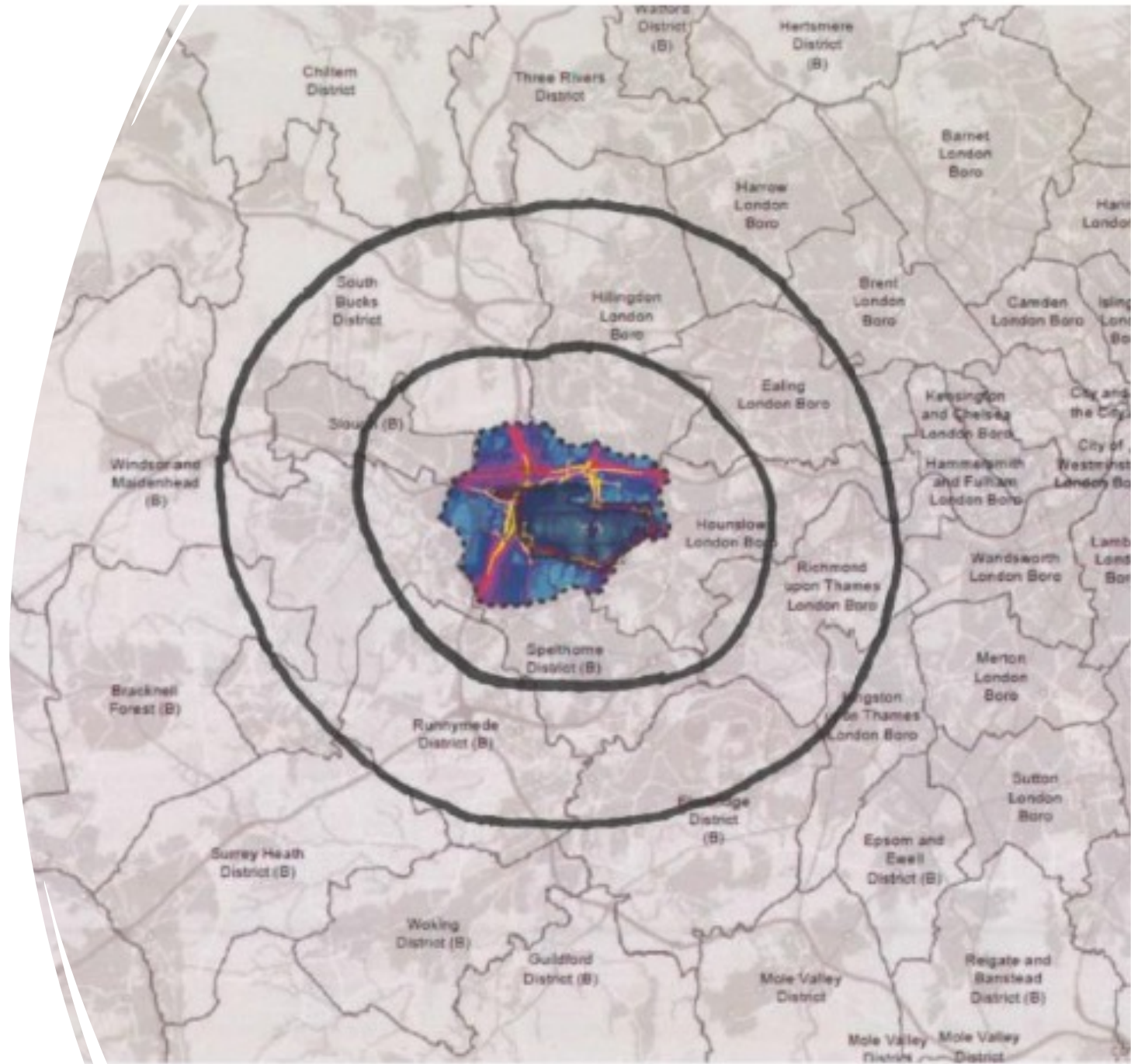




# Respite Research

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- Map showing potential areas that respite of 9dB L<sub>Amax</sub> may work and where it will not.
  - Is this still accurate?
  - Any further research planned on this basis?
- How to address absolute amount of noise communities experience?





# Respite and airspace modernisation

- Can existing periods of respite be protected?
- How can design ensure that currently overflowed communities are not exposed to increases in noise?
- How can noise be shared on a fair and equitable basis?
- Metrics – LAeq, N>, - need to explore how these combine with respite/relief to ensure that proposed changes can be measured and understood.
- How noise costs are calculated of proposed paths – total cost, average cost per household? Fundamental to assessment of actual noise reductions that might be delivered.



# Key Challenges

How can noise be shared on a fair and equitable basis?

What role does respite play?

Agreement on measurement of respite (time, exposure, number of movements)

How much valuable respite is possible? Achieving differences of average 9dB LAmax not always realistic.

Can numbers of flights down paths be limited to help deliver respite?

Pace of progress and clear timetable for action.