

# Questions on Respite

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The Future Runway Ops document published as part of AEC defines respite as:

“...a predictable and guaranteed break from aircraft noise (known as respite) for people living close to the arrival or departure flight paths”

“3.1.2 By respite, we mean predictable relief from aircraft noise for a period of time for local communities. 'Relief' can be defined as a break from or a reduction in aircraft noise. We know from community feedback that many residents affected by aircraft noise value the respite offered by runway alternation. “

Respite is frequently referred to in the consultation documents and it is important that everyone is clear what this means.

The definitions of respite are imprecise and need to be clarified. The following questions need to be answered:

- What is the definition of aircraft noise?
  - is this all noise from aircraft or just noise from planes in the air?
  - how is this noise measured?

- What is meant by reduction in aircraft noise
  - 1%? 10%?
  - How is this measured?
- What is meant by relief from aircraft noise?
  - No noise?
  - A reduced level of noise?
- The descriptors “meaningful” and “valued” are used in various documents.
  - What do these terms mean – are there different degrees or levels of respite?

- The consultation document Future Runway Operations suggests that the respite proposals for a 3 runway airport will only provide respite to those who are directly overflowed to the east and west
- What are the respite provisions for other communities round the airport to the north or south?
- What are the health implications for communities who will receive little or no respite?

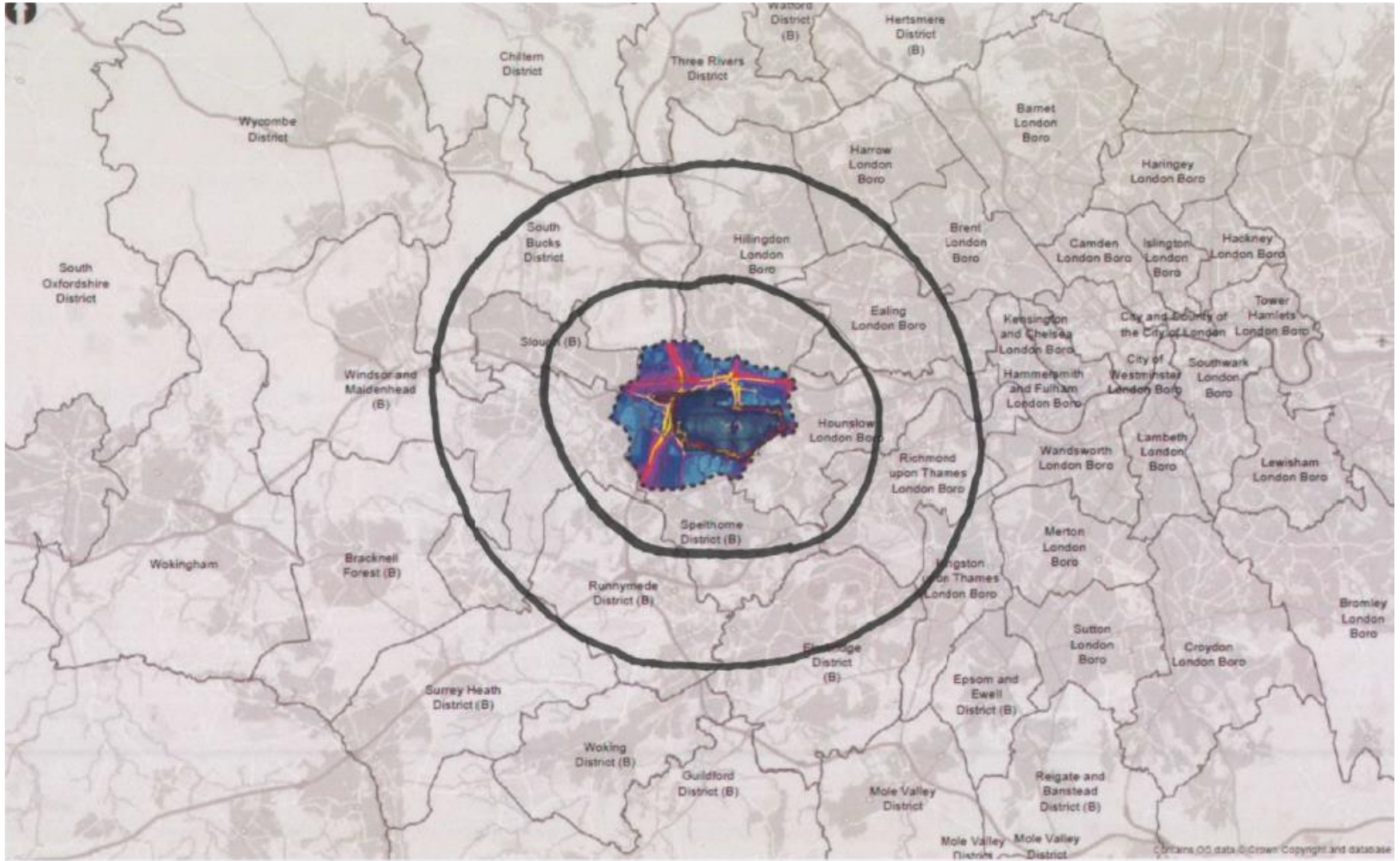
RESPIRE FROM MULTIPLE DEPARTURE ROUTES

AND

A FEW OTHER THINGS.

# Potential for respite through multiple routes

- A map showing area that could be afforded respite of 9 dBm
- Assumptions made that need to be substantiated
  - Central route with two adjacent routes separated by 10 degrees
  - A lateral separation of 2 miles to achieve 9 dBm noise difference
  - A lateral separation of 1 mile as the point when noise difference may be noticed.
  - This allows the generation of two rings
  - within the inner valued respite is not possible
  - Outer beyond which 9 dBm can be achieved.





# PEIR annexe D additional factors

- Respite focused upon runway alternation
- LAeq,16h and LAeq,8h do not fully evaluate the benefit perceived by communities due to predictable respite
- after having been told about managed respite, and for areas with average aircraft noise levels above 57dB LAeq,16h where respondents expressed benefit of respite it was 'valued' above 9 dB and noticed between 4 and 9 dB
- So to be valued noise should be below 48 dB LAeq
- policy now considers that "*significant community annoyance*" starts to occur at 54dB LAeq,16h (Consultation Response on UK Aviation Policy, DfT, October 2017). So at this key noise level, to be valued noise levels should be 45 dB LAeq
- This is the WHO measure of 'LOAEL'

# Other additional factors

- enables aircraft noise effects to be considered that may not be reflected in the 'primary metrics' such as number of events or N number N65 day and N60 night
- N numbers are as important as LAeq,16h and LAeq,8h
- HAL proposes to use Quota Counts as a proxy for aircraft noise
- Two 0.25 QC aircraft are equivalent to one 0.5 QC aircraft which in the world of average noise is probably correct.
- This assumes that the annoyance caused by two 0.25 QC aircraft either departing or arriving will be no greater than the single 0.5 QC aircraft.
- Departing aircraft;
  - With the same load a 0.5 QC aircraft will be equivalent to two 0.25 QC aircraft on take off.
  - Once on the SID whatever the QC rating all three aircraft will at a point create noise on the ground of 65 dBm.
  - Two N65 events for the 0.25 QC aircraft and one N65 event for the 0.5 QC aircraft
  - The two quieter aircraft cause more annoyance than the noisier aircraft.

## What does this mean

- Quota Counts are a poor measure of the impact of new 'allegedly' quieter aircraft.
- What matters in the real world is the impact on people on the ground.
- The number of people annoyed by aircraft noise is the only metric that can work
- This is realistic, measures what is important to the local population and importantly takes account of population growth around Heathrow.
- Would require regular Surveys on Attitudes to Aircraft noise.
- Will HAL recommend this to the NERG