

Heathrow Airspace Consultation

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Past, Present & Future

This PowerPoint looks at:

- ▶ areas currently impacted by flights and flight paths
- ▶ areas that might be impacted by Heathrow's proposals
- ▶ it doesn't detail every change but uses examples to highlight the new trends

It has four sections

▶ Arrivals

▶ Departures

▶ Heights

▶ Concluding Thoughts

Two runway airport

- ▶ The PowerPoint focuses on the changes associated with the 3rd runway.
- ▶ Flight paths would change significantly even if Heathrow remained a 2-runway airport since airports across the world are moving to satellite systems to guide planes
- ▶ But no work has been done on flight path changes for a 2-runway airport by Heathrow.
- ▶ Except for **Independent Parallel Approaches (IPAs)** – see next slide

Independent Parallel Approaches

- ▶ Independent Parallel Approaches (IPAs) are intended to improve the resilience of the airport
- ▶ These will be new **narrow, dedicated, concentrated flight paths**, with planes lower over some areas.
- ▶ They are worrying a lot of people and would remain unless or until a new runway is built.
- ▶ **This PowerPoint doesn't assess them as its focus is flight paths post any 3rd runway.**

Arrivals

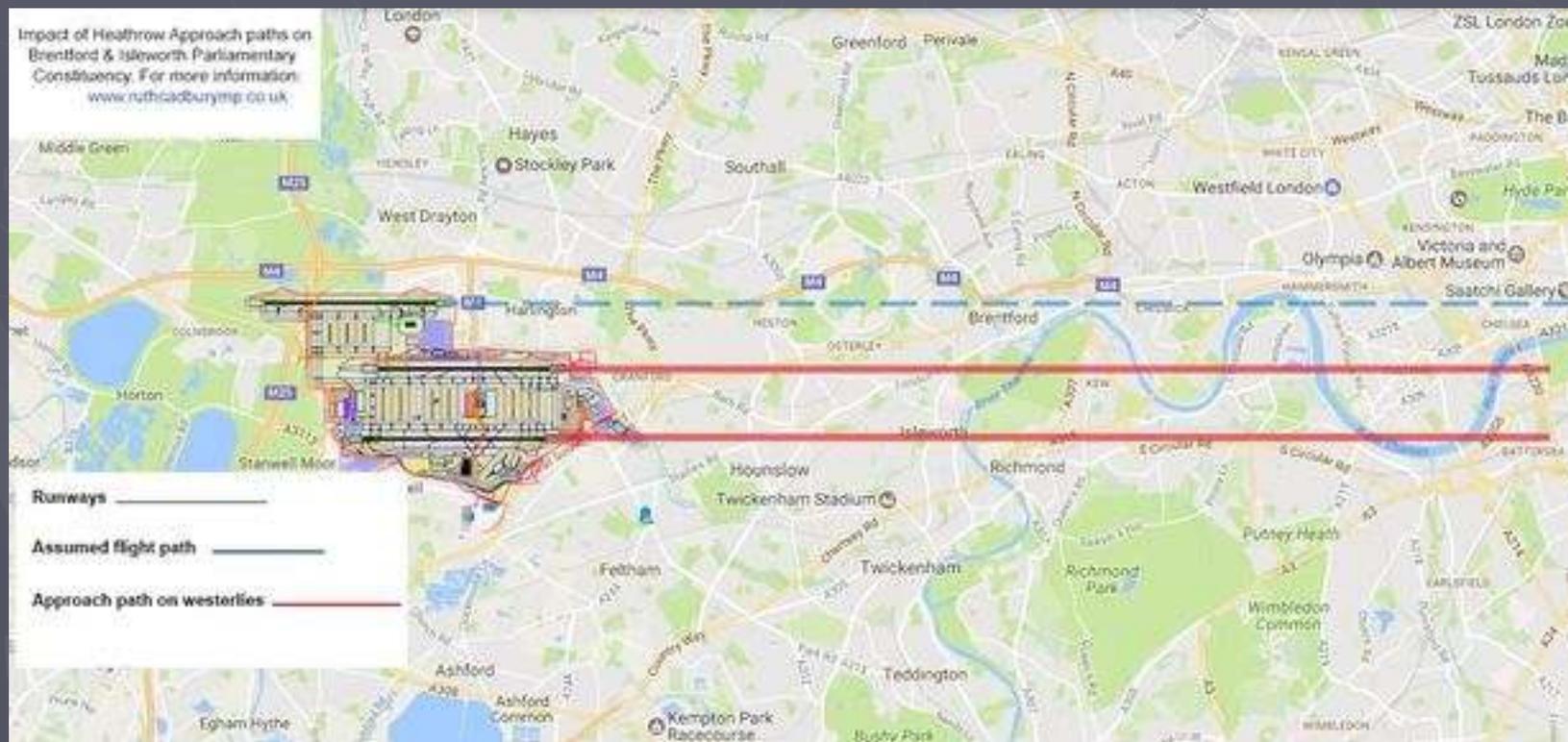
- ▶ Currently there are just **3 fixed arrival flight paths**
- ▶ Planes need to join their final approach round 8nm from the airport (about 9 miles) but these days usually join it further out
- ▶ The only fixed paths are those final approaches to the airport

The Fixed Flight Paths

- ▶ **Northern flight path:** Fulham area to Heathrow
- ▶ **Southern flight path:** Barnes area to Heathrow
- ▶ **Northern flight path:** A few miles west of Windsor to Heathrow – **the southern flight path** is less used when planes approach from the west (but is regularly used by the early morning flights: 4.30am onwards)

Fixed Flight Paths...with a 3rd runway

- ▶ **Hammersmith, North Chiswick, North Brentford, Heston** under the new flight path; most of these areas for the first time. To the west the new flight path would be just north of Windsor.



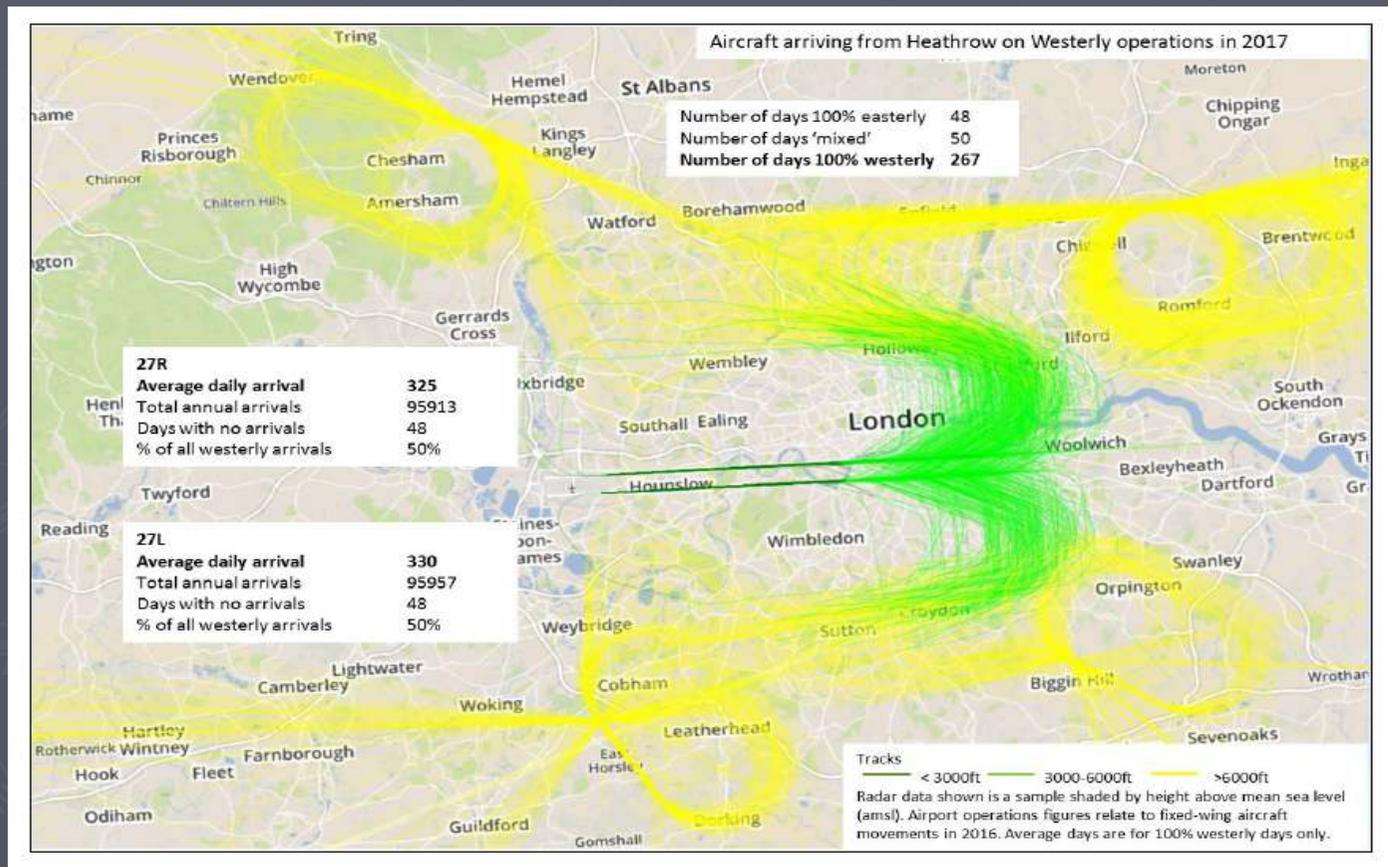
Proposed respite for the fixed approach paths

- ▶ The proposal is this:
- ▶ **Northern & Southern Runways:** a third of a day respite; a third with planes every 90 seconds; a third with planes less frequently (day is defined as 7am – 11pm)
- ▶ **Middle runway (current Northern Runway):** half day respite; half day with planes every 90 seconds – as now.
- ▶ The pattern would be the same for areas both east and west of the airport.
- ▶ **Respite** is still an imprecise term, indicating a period no/less aircraft noise, ideally (but not always) far enough away not to be heard.

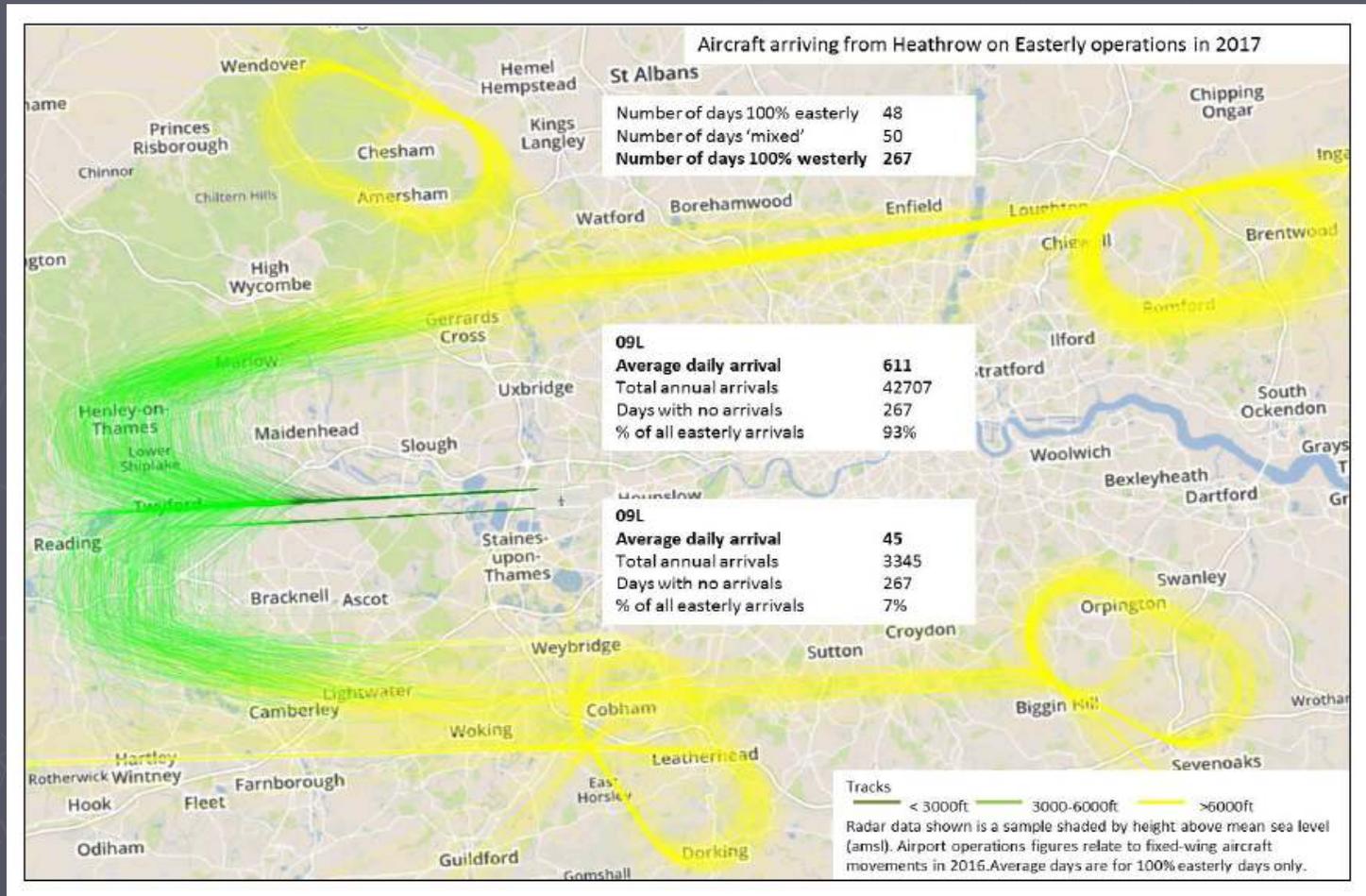
Areas further out: the current extended approach

- ▶ **In 1996**, the recommended points to join the final approach were extended further east and west
- ▶ **Today the typical joining point is about 13nm from Heathrow** (i.e. 15 miles – round about the Oval in South London; and a similar distance to the west of the airport)

Current arrivals when west wind blows



Current arrivals when the east wind blows



The pattern without a pattern

- ▶ The last two slides showed there is a very general pattern (yellow and green indicate heights)
- ▶ But aircraft can be and are guided by air traffic control anywhere within that pattern
- ▶ **The result is very few areas are without planes**

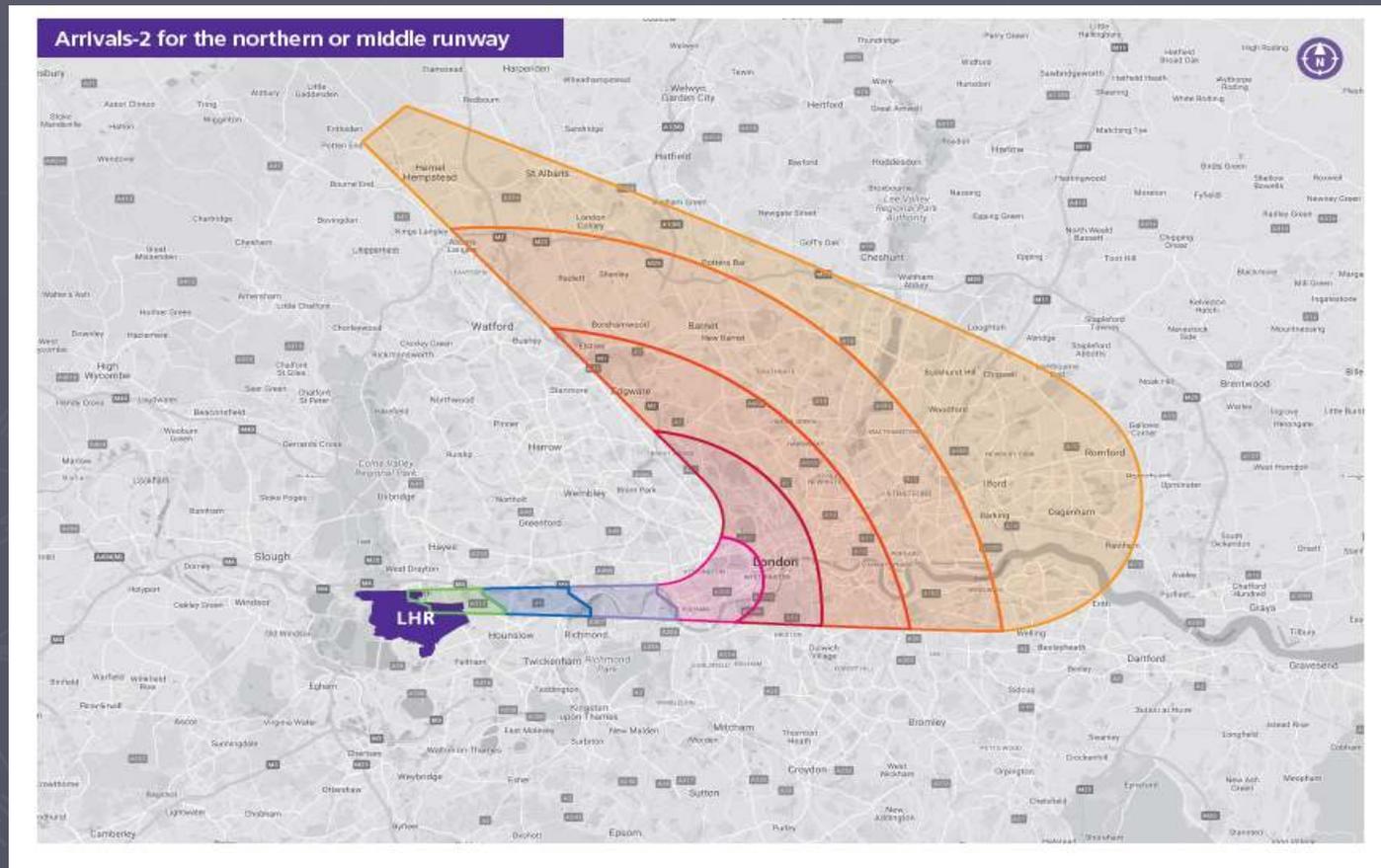
The New Pattern

- ▶ Essentially what is being proposed is that **the yellow and green spread is being replaced by distinct, individual yellow and green lines**, rotated, to give people under them a break from the noise – **see slide 18**

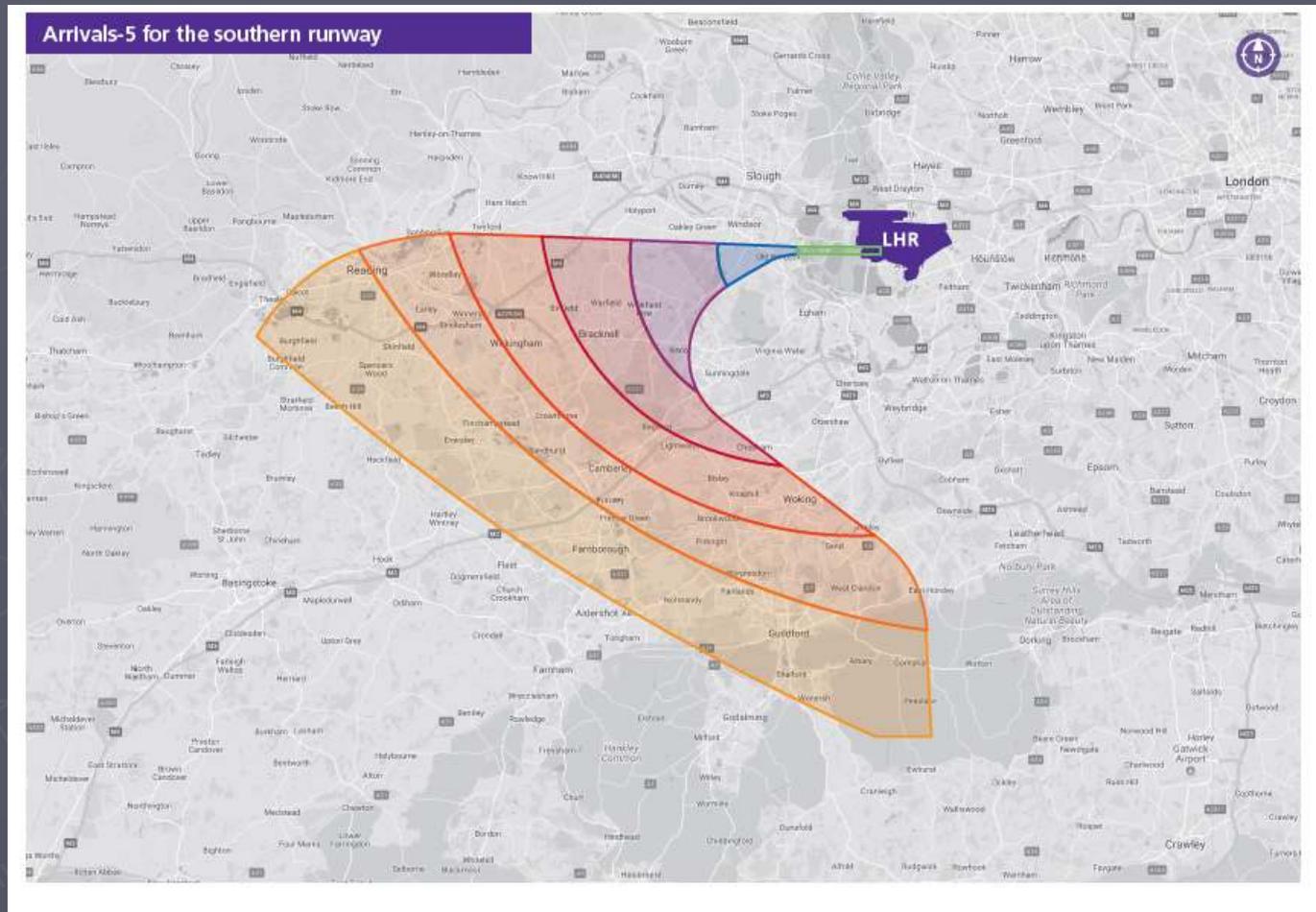
Flight Paths within 'Envelopes'

- ▶ Aircraft arriving at Heathrow will use a flight path within an 'envelope' depending on what runway they are heading for
- ▶ The use of these envelopes will have the same rotation pattern as used on the final approaches
- ▶ That is how respite will be provided. Additionally, there is likely to be more than one flight path within each envelope, which, if rotated would provide, additional respite.
- ▶ We give examples in the next two slides.

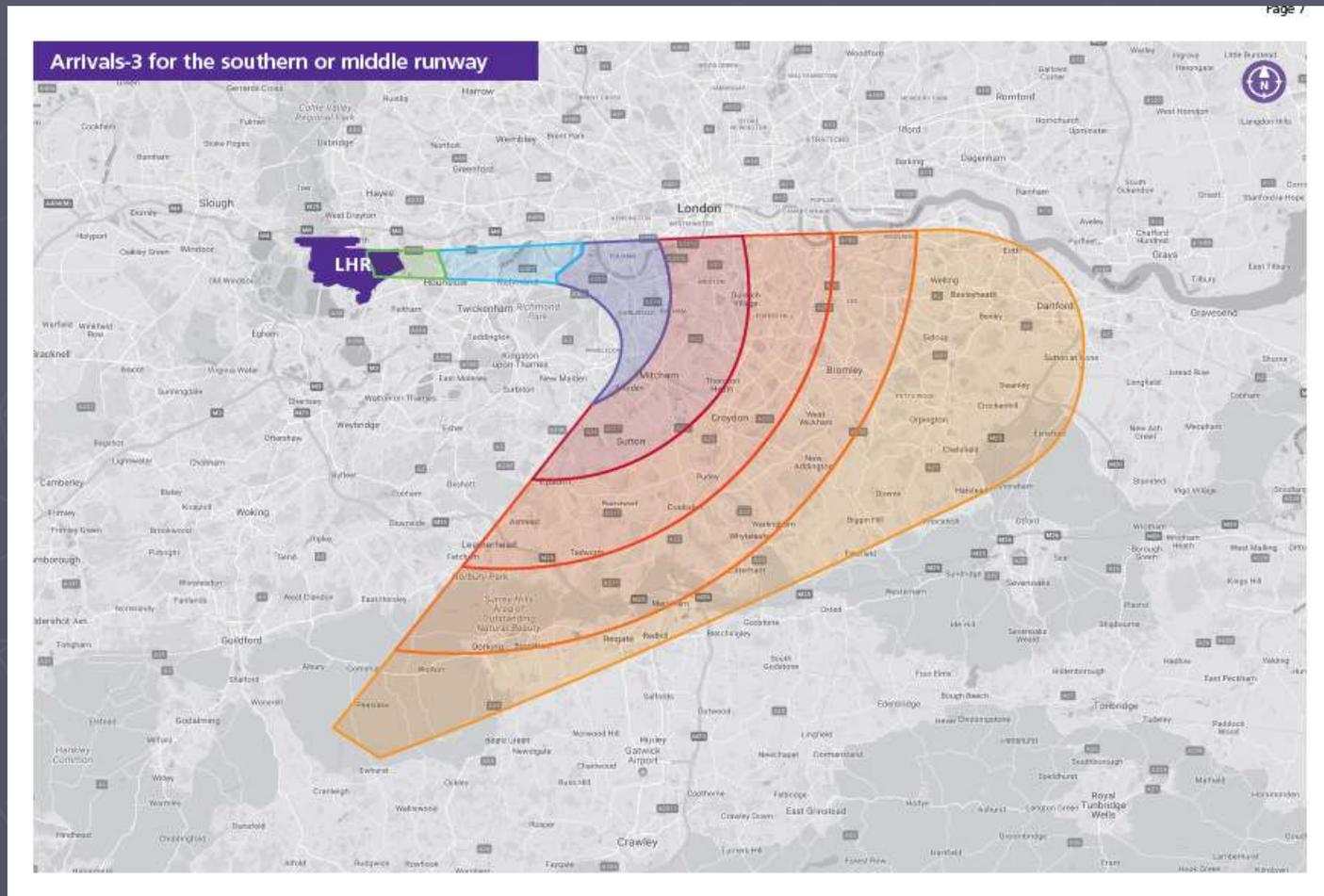
Example 1: within the envelope likely to be more than 1 arrival flight path



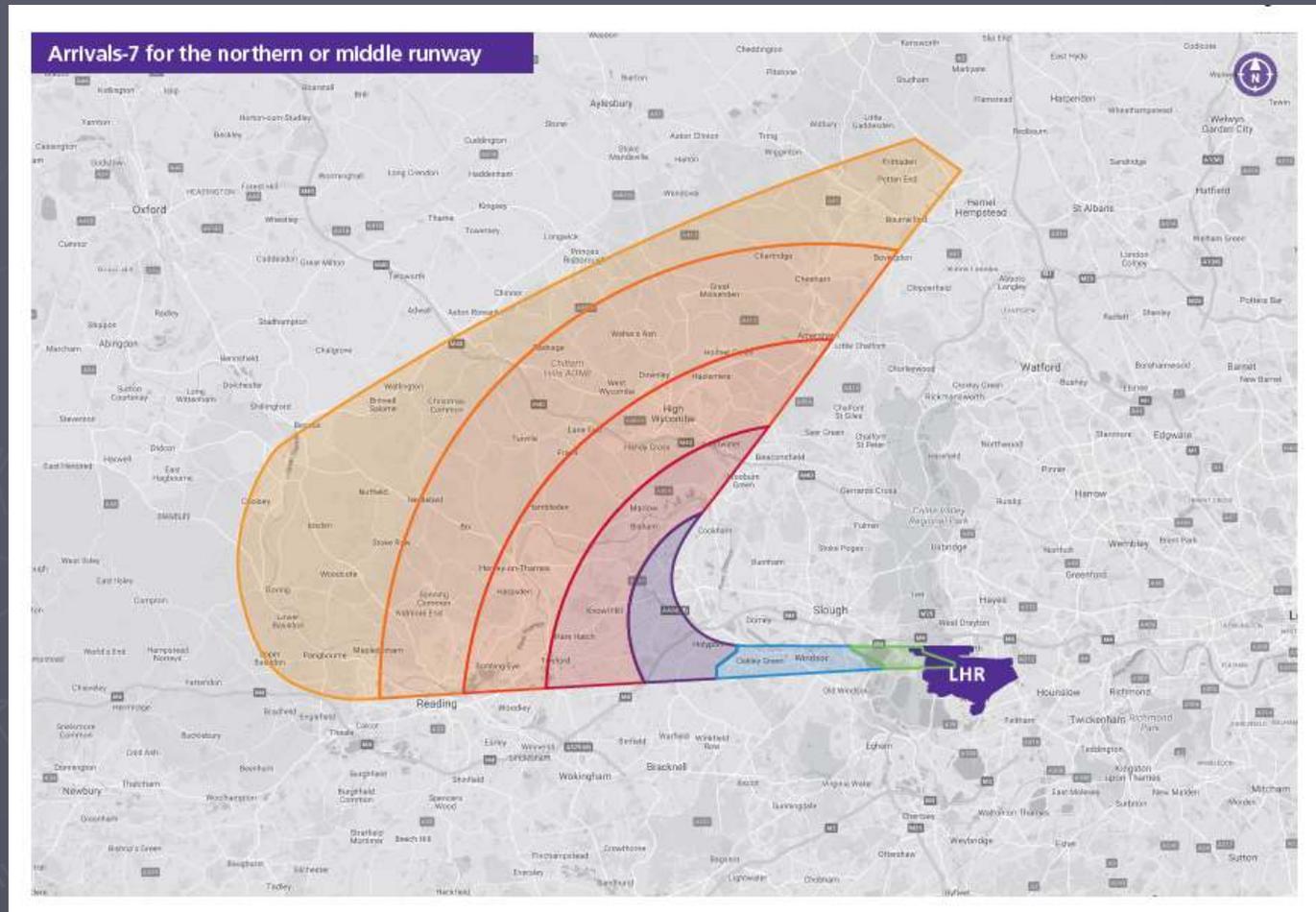
Example 2: within the envelope likely to be more than 1 arrival flight path



Example 3: within the envelope likely to be more than 1 arrival flight path



Example 4: within the envelope likely to be more than 1 arrival flight path



Indicative New Pattern

- Our attempt to show what 3 flight paths might be like, not what has been decided.



Impact of New Pattern (1)

We won't know impact on individual areas until we see exact flight paths.

In general though:

- an end to the current scattergun all-day flying most of these areas further from Heathrow currently get
- there will be areas currently overflowed in a scattergun way which will get **no planes** when the more concentrated flights are introduced
- some areas such as **Streatham, Tooting Broadway, Camden & Islington** where flights have reduced in recent years could get more if impacted by a new route

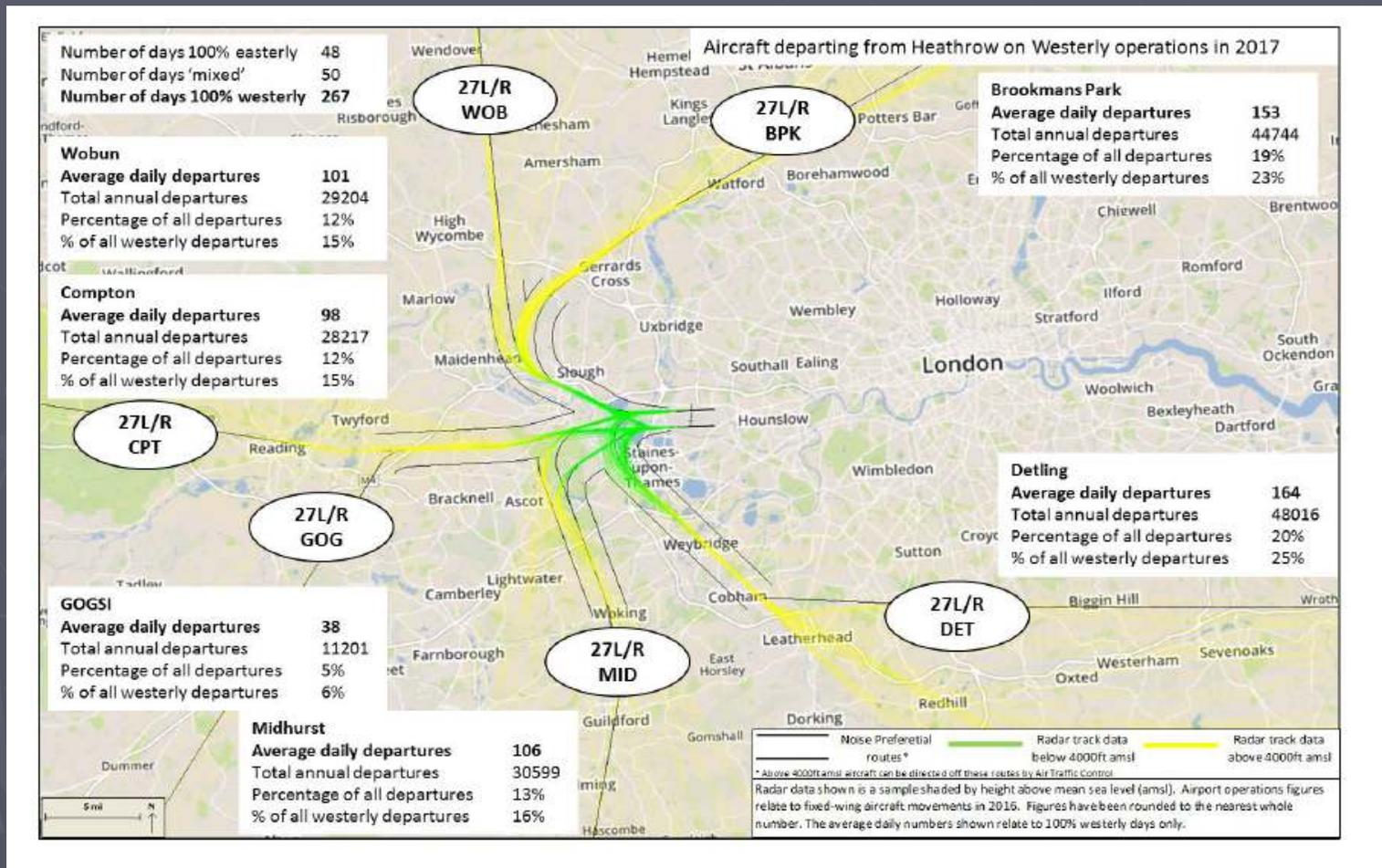
Impact of New Pattern (2)

- ▶ The very few areas currently with next to no flights at present – e.g. **Marylebone; West Norwood; Mitcham; White City; East Ham; Ilford; Euston; Soho** – would certainly notice if they had a new flight path overhead
- ▶ Unless the new flight paths are very carefully devised, areas like **the Oval** or **Stockwell** which might be under or close to flight paths approaching two of the runways could lose much of the benefit of the rotated flight paths
- ▶ The same would apply to similar areas about 15 miles **west of the airport**

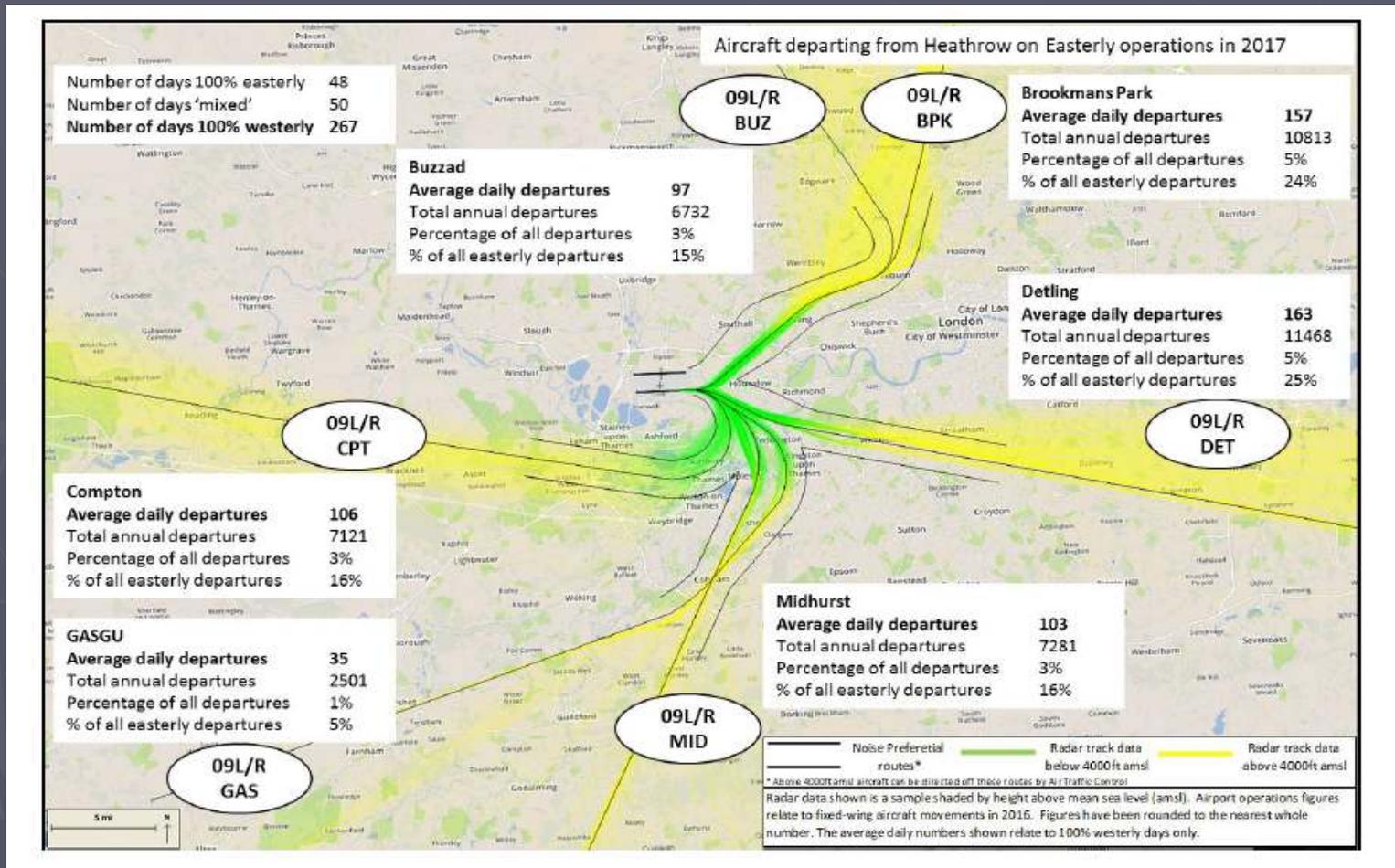
Departures

- ▶ This next section looks at departures starting with two maps of the existing routes

Departure routes when the wind blows from the west



Departure routes when the wind blows from the east



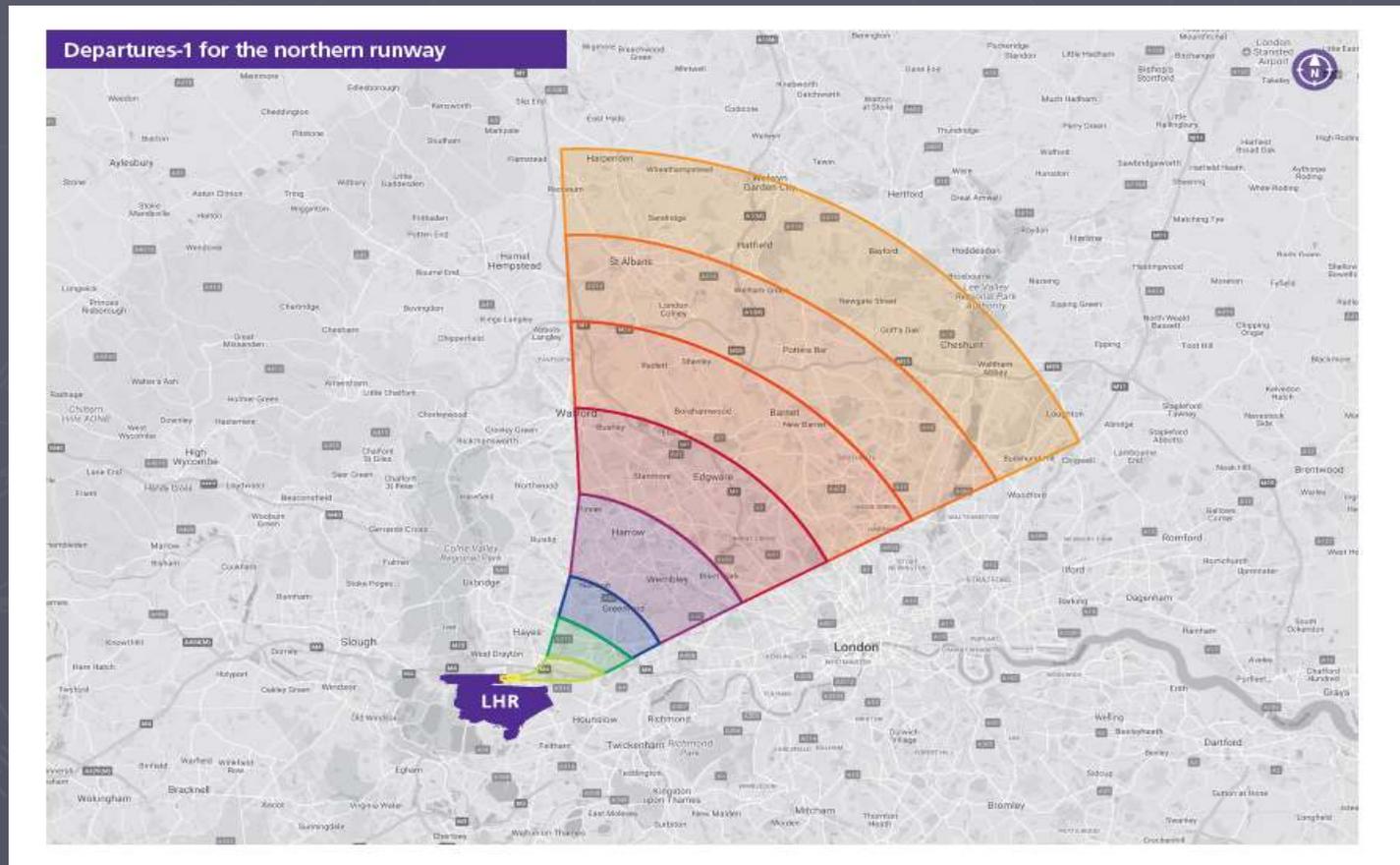
Current departure routes explained

- ▶ There are dedicated routes known as **Noise Preferential Routes** (NPRs) which have been in place for decades.
- ▶ Departing aircraft must use them until they reach 4,000ft
- ▶ They are 3km wide but over the last 10 years or so aircraft have tended to fly down the centreline of each NPR

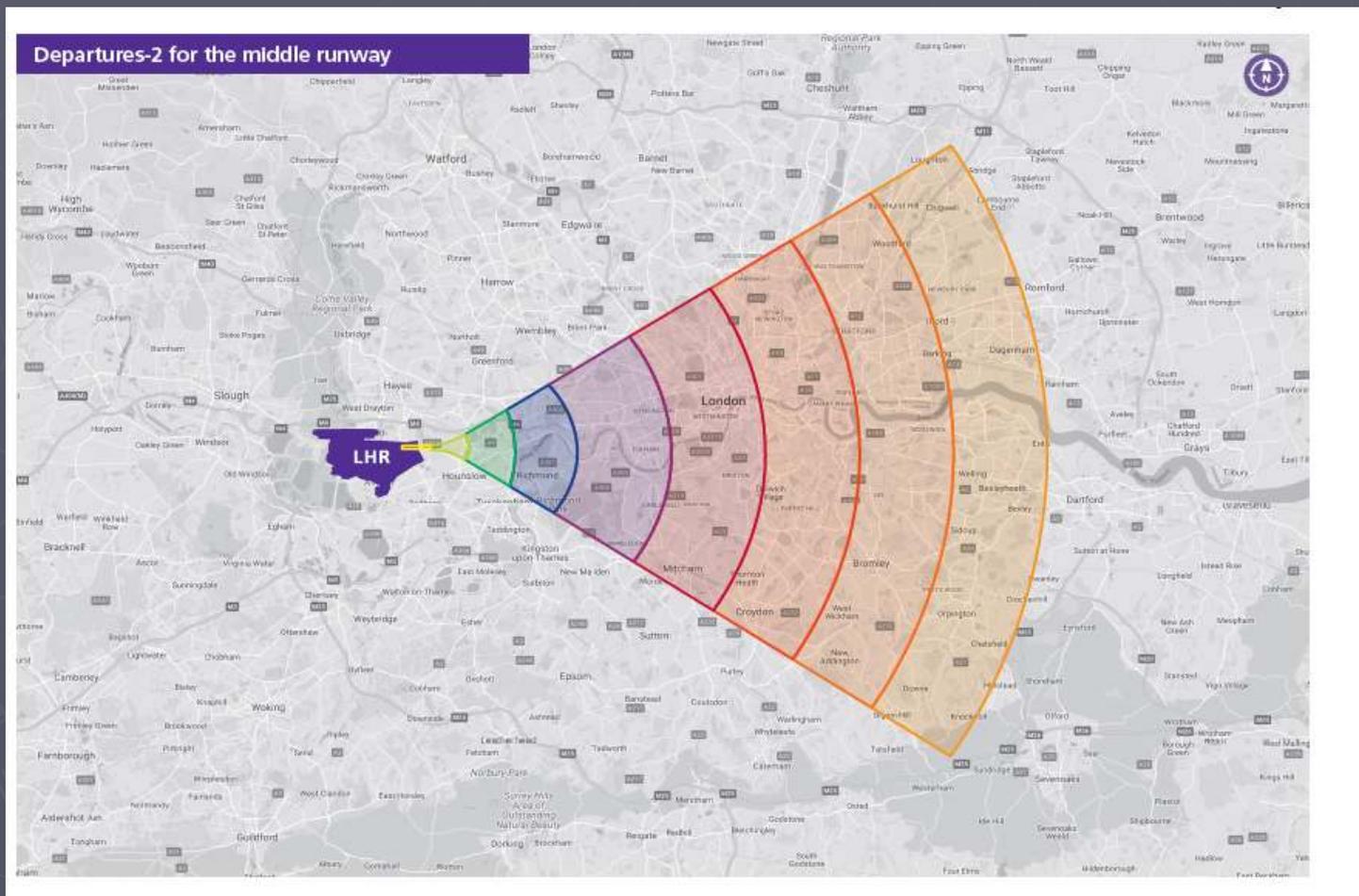
New Pattern

- ▶ As with arrivals, the departures have been divided into envelopes or blocks.
- ▶ **Within most envelopes there will be three routes to provide some noise relief**
- ▶ In some envelopes, respite will mean planes can be heard from the other routes but not in the envelopes where the flight paths can be further part.

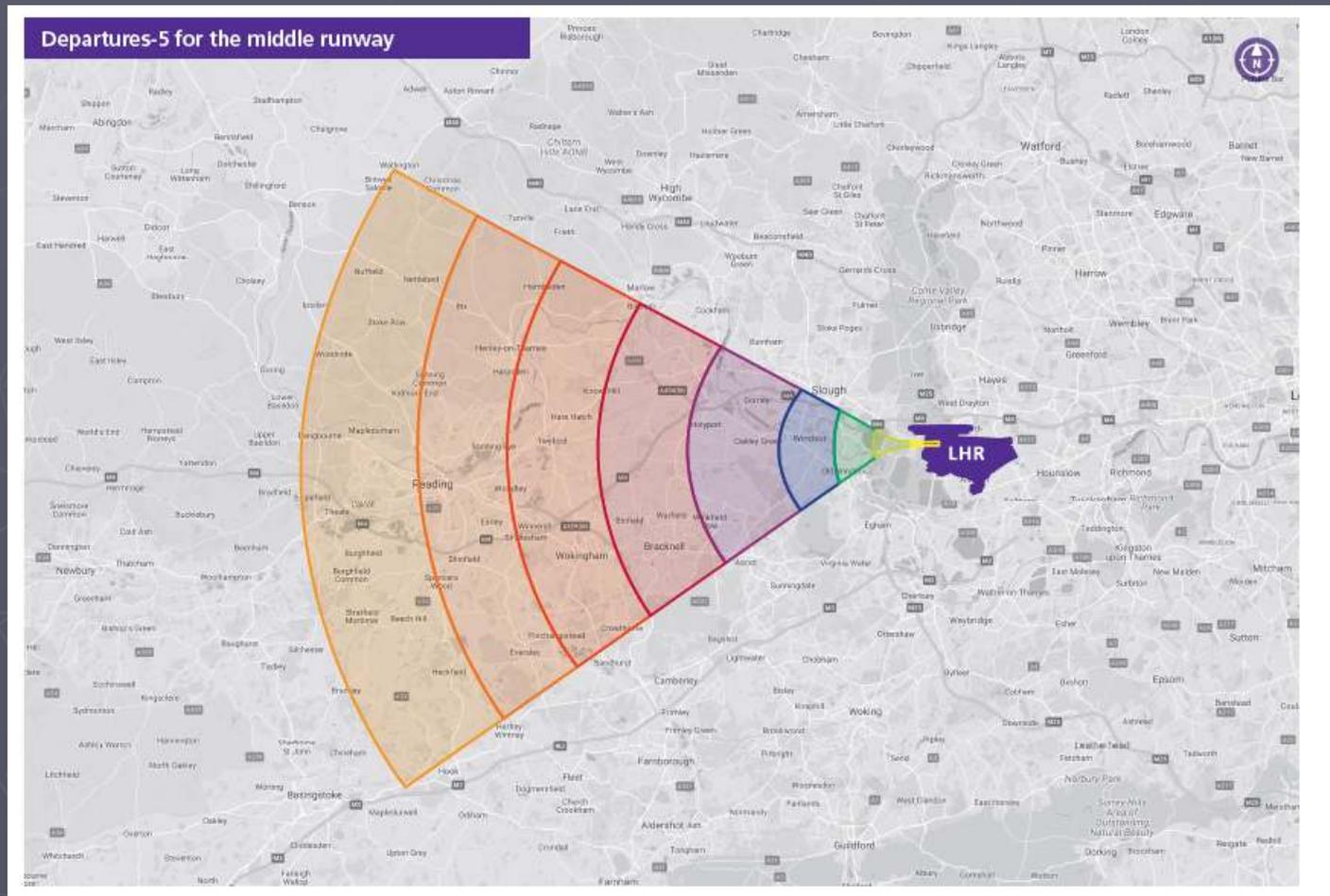
Example 1: this envelope will have 3 departure routes (used during an east wind)



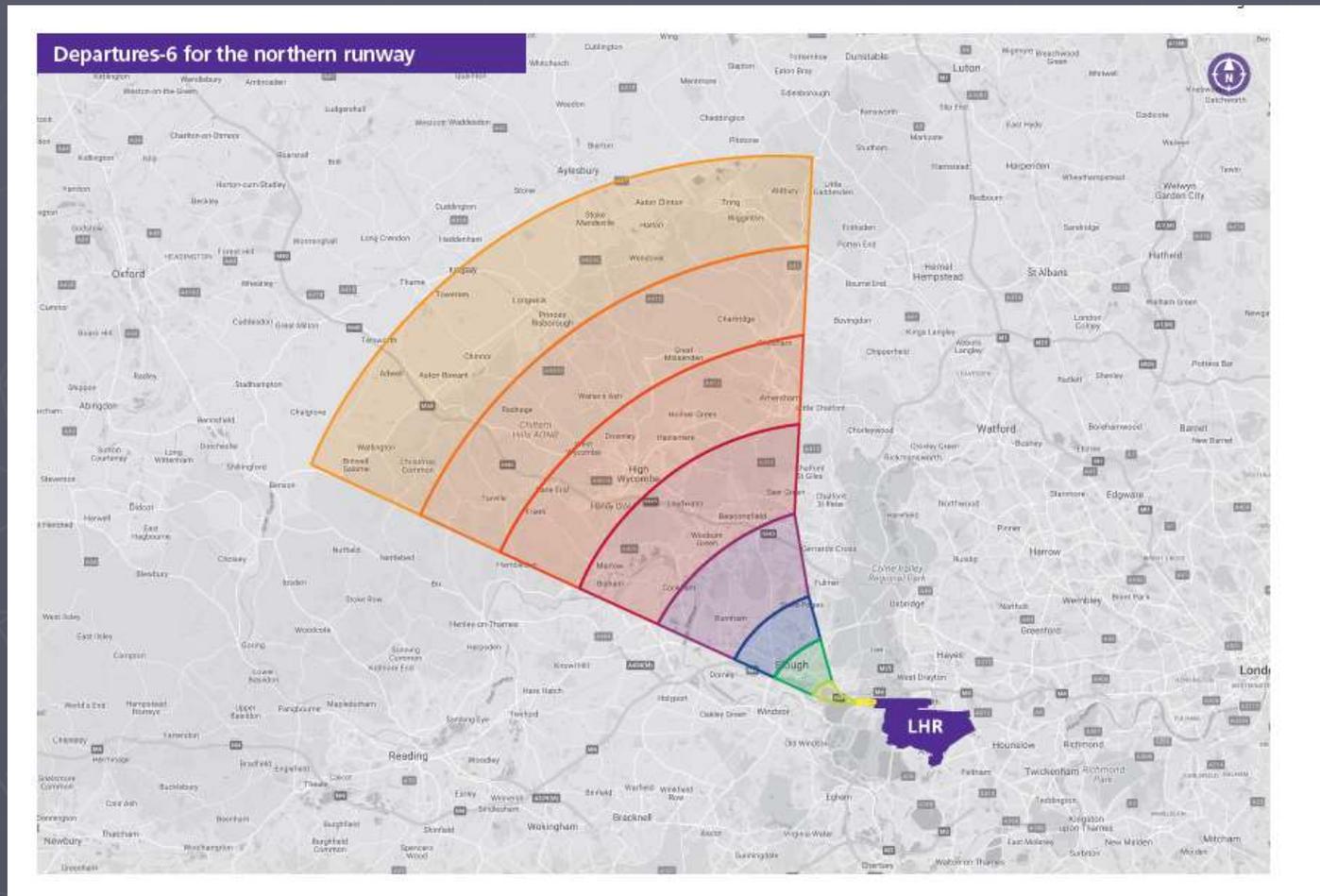
Example 2: this envelope will have 3 departure routes (used during an east wind)



Example 3: this envelope will have 3 departure routes (used during a west wind)



Example 4: this envelope will have 3 departure routes (used during a west wind)



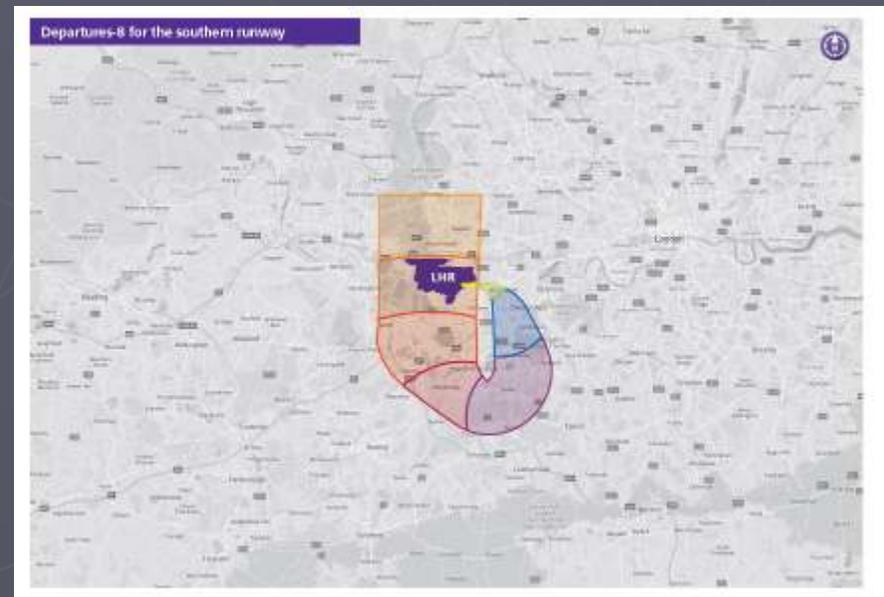
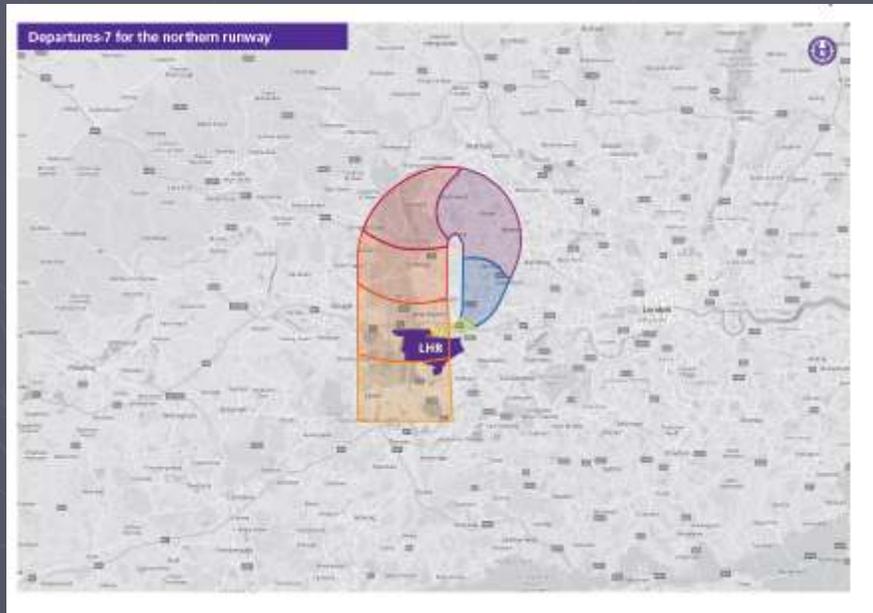
Impact of the new departure routes

- ▶ An **element of respite** will be provided to most people
- ▶ **Areas close to the airport won't get much less respite** because at that stage the planes will just be fanning out to join whichever route they will be joining within an envelope
- ▶ Depending where the flight paths are some areas could be overflown which don't currently have planes or have only a few: places such as **Uxbridge; Marylebone; White City; Rayners Lane; parts of Harrow and Brent** on the London side of the airport.

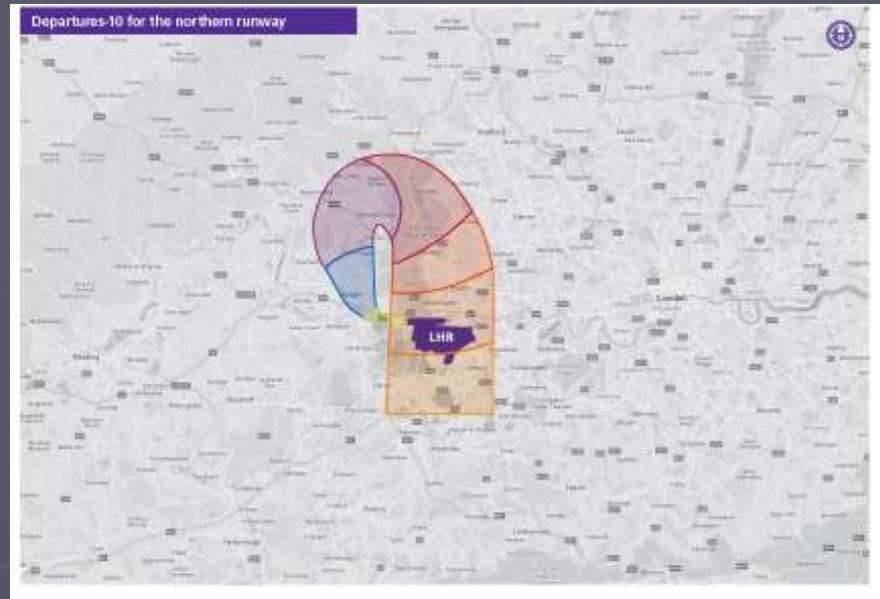
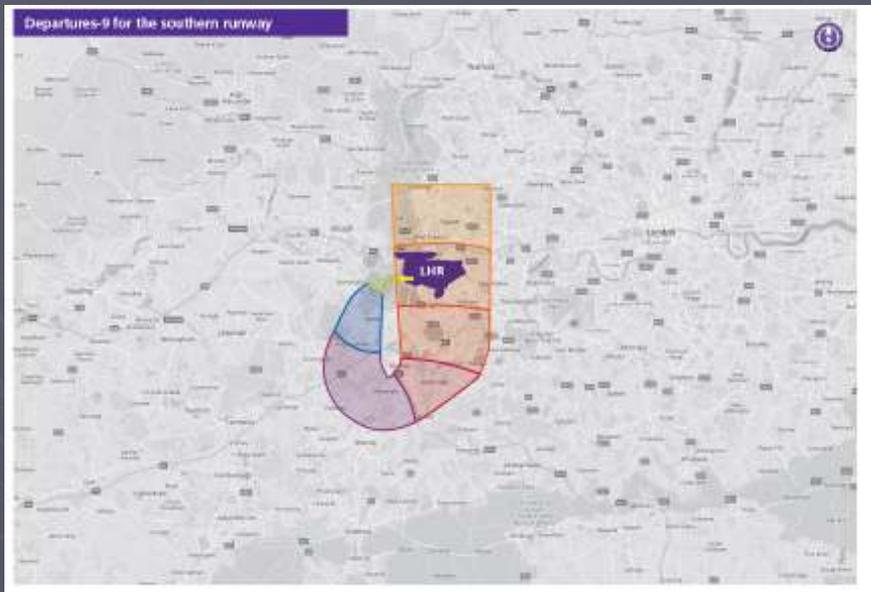
Areas of particular concern

- ▶ In the next two slides we look at areas where new departure routes are of particular concern
- ▶ **These are where there are very new patterns.** They will impact areas like **Uxbridge** which has been free of planes and would have expected to remain so.
- ▶ **It is also unclear how much meaningful respite might be able to take place within these envelopes**

Areas of particular concern



Areas of particular concern

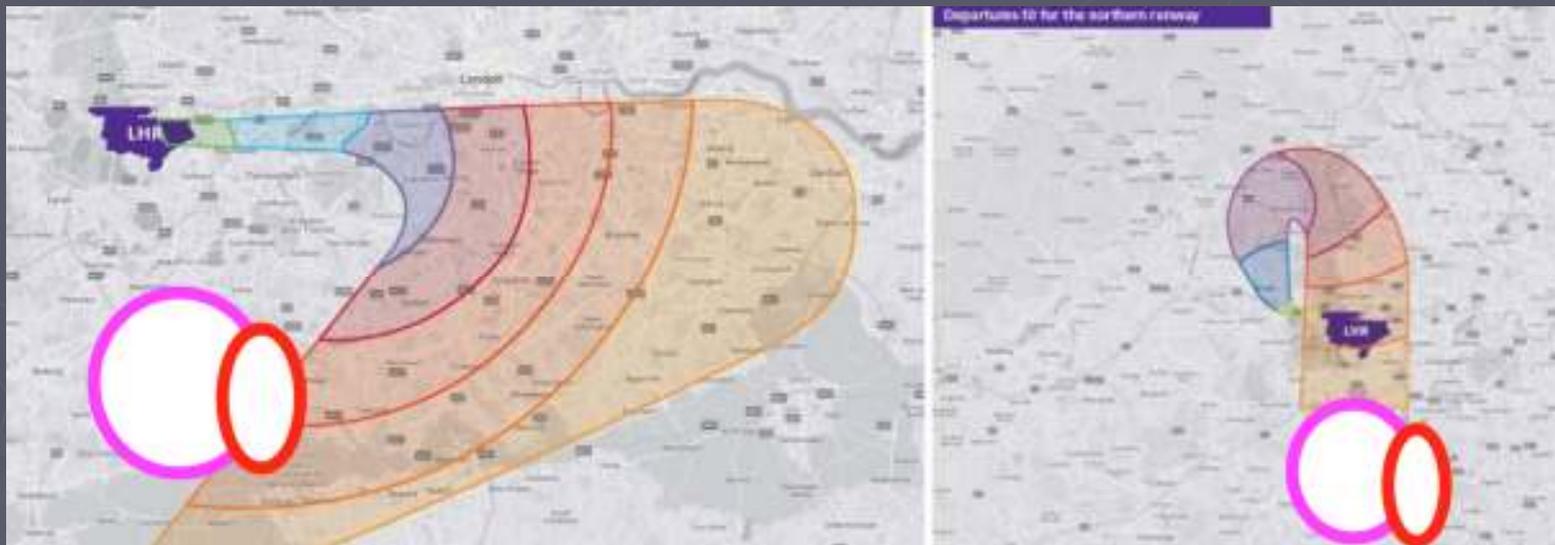


Areas overflown by arrivals and departures

- ▶ **Some of the departure envelopes overlap with the arrival blocks.** Heathrow has said it will try to design the routes within the blocks so no area gets both arrivals and departures.
- ▶ But there are some areas close to Heathrow which will be overflown by both arrivals and departures simultaneously (departures will be over 5,000ft - still audible)
- ▶ It appears simultaneous flying for other areas will be kept to a minimum.

What could happen

- ▶ We have tried to identify the areas which could get both arrivals & departures (red circle) when you put the two maps together but stress it is **speculative**.



Heights

- ▶ The next few slides look at the heights the aircraft will be at.

Arrival Heights

- ▶ The consultation document gives a broad indication of the heights.
- ▶ **Heights of arrivals should be much as they are today** as Continuous Descent Approach (CDA) will mean they descend in the same way and at the same angle as at present

Broad indication of today's arrival heights

- ▶ At present planes landing from the east are at about:
- ▶ **6,000ft** over Leytonstone,
- ▶ **5,000ft** over Greenwich,
- ▶ **4,000ft** over Clapham,
- ▶ **2,500ft** over Barnes and **1,500ft** over Isleworth
- ▶ Similar heights apply when landing from the west

Departure heights

- ▶ **In theory, the planes could climb higher more quickly** because the new dedicated routes will be designed to avoid conflicts with other Heathrow routes and flight paths from other airports
- ▶ **But some areas will experience both arrivals and departures. It is unclear how that will impact on heights of departures.**

Concluding Thoughts

- ▶ There will be many more planes in total
- ▶ There will be many more flight paths
- ▶ We can't predict all the areas which will be under the new flight paths.
- ▶ Some areas will get more noise than they currently do – particularly those affected by the 3rd runway approach and departure routes
- ▶ We know nearly all will get respite, though its quality will depend how far apart the flight paths can be.
- ▶ There are some areas which will get arrivals & departures