



HEATHROW AIRSPACE AND FUTURE OPERATIONS CONSULTATION 2019

AVIATION NOISE AND EMISSIONS SYMPOSIUM – 4 MARCH 2019

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Heathrow
Building for the future

PRESENTATION OVERVIEW

- **2019 consultations**
- **Future Airspace change**
 - For an expanded Heathrow
- **Future Runway Operations**
 - How to share/manage noise
- **Draft Noise Objective**
- **Making better use of our existing 2 runways**
 - Independent Parallel Approaches

2019 CONSULTATIONS

January 2019 – Airspace and Future Operations Consultation

- Airspace change for an expanded Heathrow
- Future runway operations for an expanded Heathrow
- Airspace change to make better use of our existing two runways

June 2019 – Airport Expansion Consultation

- Statutory consultation for Development Consent Order
- Heathrow's preferred masterplan, including the new runway and associated infrastructure
- Managing and mitigating the effects of airport growth

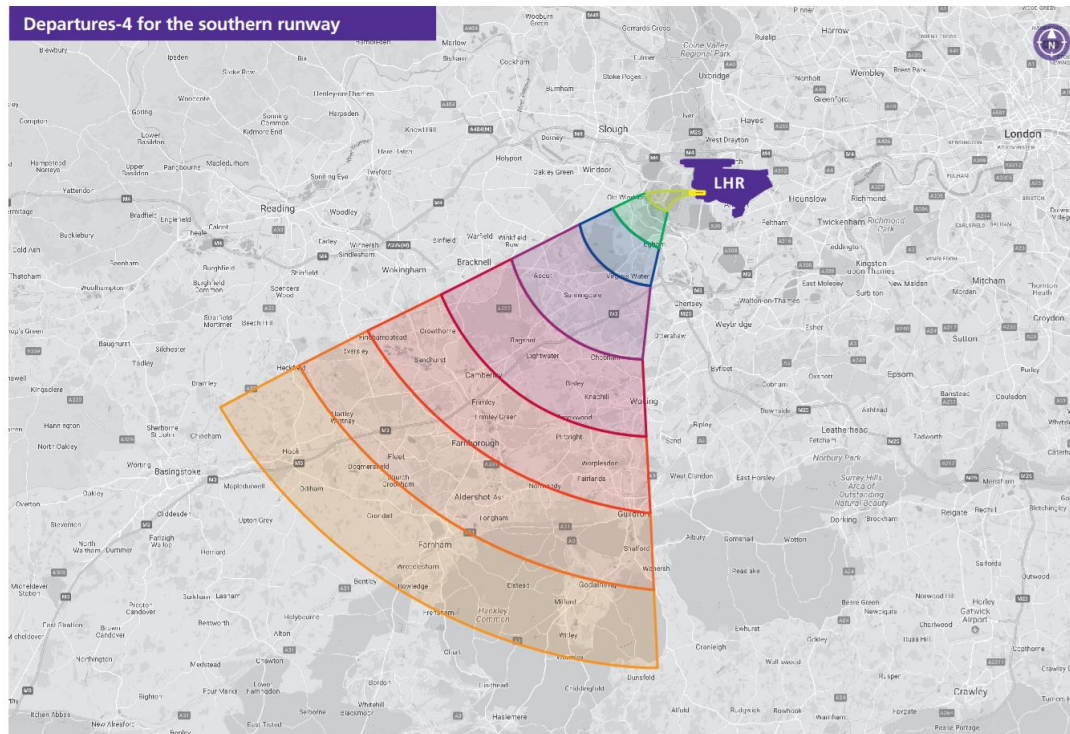
AIRSPACE CHANGE

AIRSPACE CHANGE - FOR EXPANSION AND EXISTING TWO RUNWAYS

- Asking local communities:
 - What we should take into account when designing new flight paths
- **Design envelopes:**
 - Geographic areas within which flight paths could be positioned.
 - What local factors should be taken into account
- The design envelopes presented cover both:
 - Potential flight paths for an expanded Heathrow i.e. with a third runway
 - Potential new flight paths for some arrivals to make better use of our existing two runways i.e. prior to the operation of a third runway.

EXAMPLE OF A DESIGN ENVELOPE FOR EXPANSION

In total there are 18 design envelopes for arrival and departure flight paths into each of the three runways (northern, middle and southern) on easterly and westerly operations.



KEY



Design envelope



Heathrow Airport



below 500ft



500ft to 3000ft



1000ft to 6000ft



2000ft to 9000ft



3000ft to 12000ft



4000ft to 15000ft



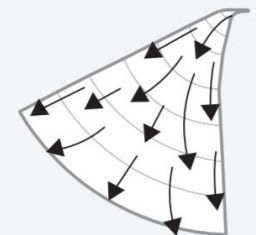
5000ft to 18000ft



6000ft to 21000ft

This is the design envelope for **departures** from the **southern runway** on **westerly operations**

Direction of ascending aircraft within the envelope
Departures-4

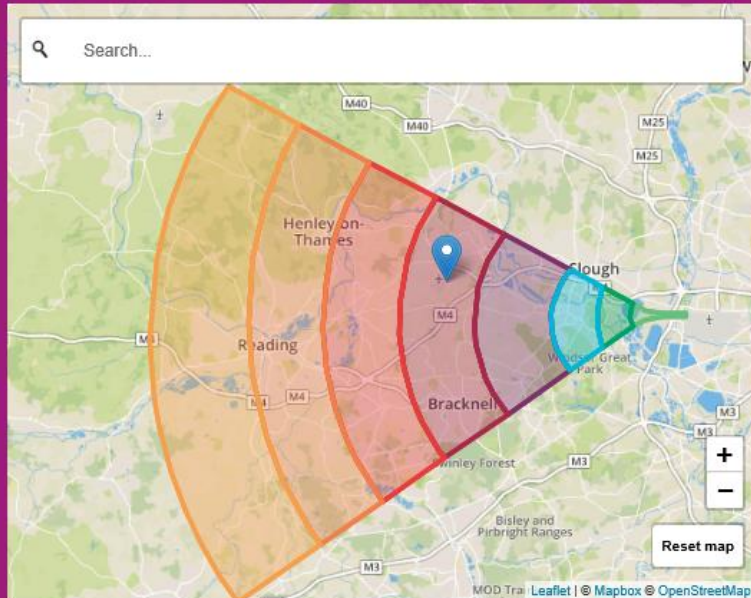


The arrows illustrate the range of potential flight paths we could position within an envelope. They do not indicate that flights would be spread throughout the envelope.

Consultation question: What sites or local factors should we be aware of in your area (or other area of interest to you), when designing flight paths for an expanded three-runway Heathrow?

ONLINE POSTCODE CHECKER

Below is a list of design envelope(s) that the postcode or area of interest you have searched for is situated within.



Please click on the individual coloured segments for an indication of aircraft heights in each location.

Select a design envelope below for more information on the number, height and noise of potential flights.

A = Expansion arrivals, D = Expansion departures, I = Two runway arrivals with IPA

A7 A8 **D5**

Select a design envelope below for more information on the number, height and noise of potential flights.

A = Expansion arrivals, D = Expansion departures, I = Two runway arrivals with IPA

A7 A8 **D5**

Expanded Heathrow (3 runways)

Design envelope: D5
 Envelope Type: Departure
 Height band: 3000ft to 12000ft
 Number of flights: 0-17 Flights per hour
 Number of these flights above 65 decibels: 0-17 Flights per hour

There would be three separate departure flight paths in this area. They would be spaced far enough apart so that you would only ever experience overflight from one of these flight paths.

*The figures for "Number of these flights above 65 decibels" were revised on 10 January 2019 following corrections to the underlying data. Please use the link below to see our Change Log for more information.

If you are within (or close to) any design envelope, it is possible that you may also see or hear aircraft from nearby design envelopes that you are not directly beneath. This is particularly the case nearest to the airport.

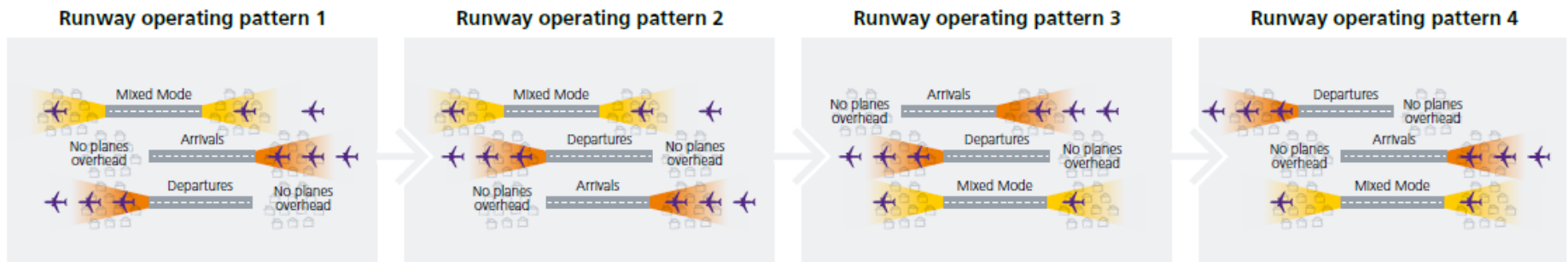
FUTURE RUNWAY OPERATIONS

RESPITE THROUGH ALTERNATION

- At Heathrow we use specific runway operating procedures to manage noise and provide regular breaks from planes flying overhead for our communities.
- With expansion we will be able to provide respite to communities affected by aircraft noise in two ways:
- By **alternating our runways**, we will provide respite for those living closer to the airport
- By **alternating our airspace**, we will provide respite for those living further away
- With three runways, one runway will be used for arrivals, one runway will be used for departures and the remaining runway is 'mixed mode' which means it will be used for both departures and arrivals.

RUNWAY ALTERATION

- We know that in order to provide daily respite for every community close to the airport we would need to use each of the four runway operating patterns.
- **This means that if each runway operating pattern was of equal length there would be a change every 4-5 hours.**
- **Alternatively, we could provide longer periods of respite, but not every day.**
- It is not possible for every community to have respite every day for more than 4-5 hours.

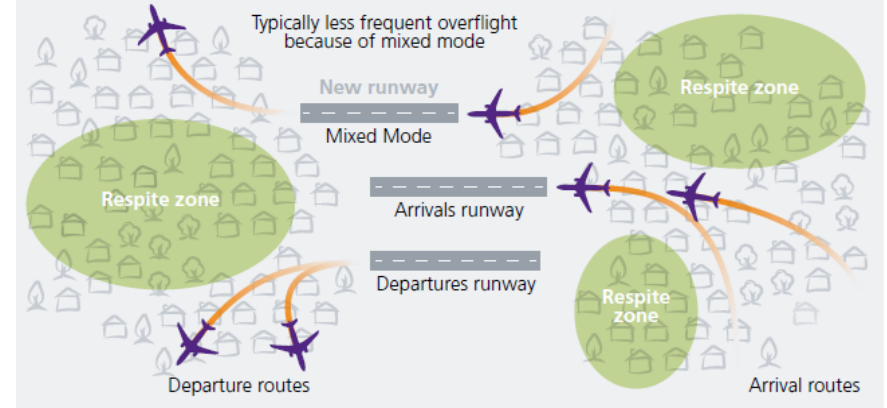


This example shows westerly operations

AIRSPACE ALTERNATION



How aircraft currently arrive & departure



How aircraft could arrive & depart with airspace alternation in future

- Airspace alternation will use specific areas of airspace for specific runways, both on arrivals and departures
- As the runway alternation pattern changes, we will also alternate the corresponding areas of airspace that are in use at any particular time
- **This will allow us to provide periods of respite from overflight for the first time to areas much further away from the airport – something that is not possible today**

Consultation question: Would you prefer to have longer periods of respite less frequently (all day on some days but no relief on other days) or a shorter period of respite (e.g. for 4-5 hours) every day?

DIRECTIONAL PREFERENCE



Question: Should we prefer westerly operations during the day and easterly operations at night to reduce the total number of people affected by noise?

Question: Should we sometimes intervene to manage the direction of arriving and departing aircraft to provide relief from prolonged periods of operating in one direction – even if that means slightly increasing the number of people affected by noise?

When winds are light (below 5 knots) aircraft can potentially take off or land in either direction. At Heathrow, winds are light on average 20% of the time. This is when preference can be applied.

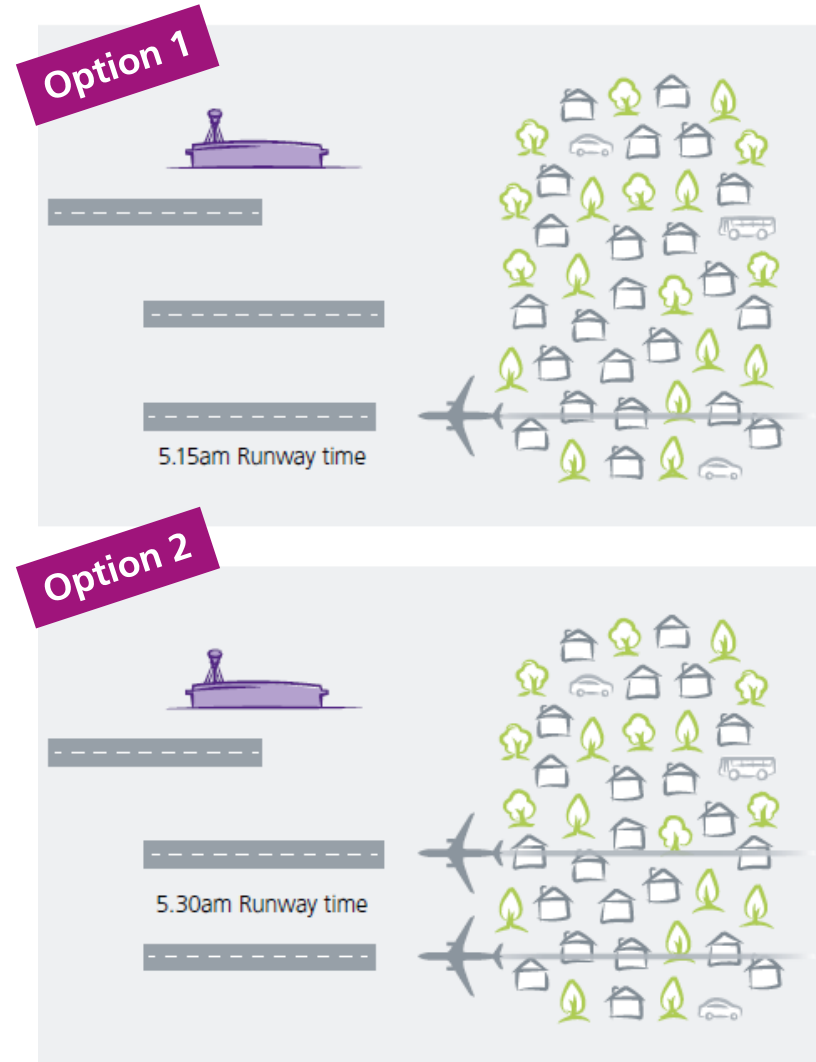
NIGHT FLIGHTS

Our early work has shown that to land our early morning arrivals later in the morning but still land the same number of flights (in a shorter amount of time) there are two options:

1. **Schedule flights from 5.30am** (runway time 5.15am) using one runway.
2. **Schedule flights from 5.45am** (runway time 5.30am) using two runways.

Consultation question (early morning arrivals): To help inform our consideration of the options for early morning arrivals, we want to know whether you would prefer Option 1 or Option 2.

Consultation question (other restrictions): How should encourage the use of the quietest type of aircraft at night (outside the proposed scheduled night flight ban)?



DRAFT NOISE OBJECTIVE

- Where we can, we want to take the opportunities presented by expansion to share the benefits of improving aircraft technology to reduce the impacts on local communities while enabling airlines to grow.
- The Government also has to make sure that “noise objectives” are set for certain airports where noise might be a problem, including Heathrow.
- We have been engaging with the Government on the development of proposals for a noise objective for Heathrow. Although it is for the Government to set the noise objective, we are consulting on a proposal for the Government to consider.

Our draft noise objective:

“To limit and, where possible, reduce the effects of noise on health and quality of life and deliver regular breaks from scheduled flights for our communities during the day and night. We need to do this whilst making sure the measures we put in place are proportionate and cost effective”.

Consultation question: Do you support our proposals for a noise objective?

*MAKING BETTER USE OF OUR EXISTING RUNWAYS -
INDEPENDENT PARALLEL APPROACHES*

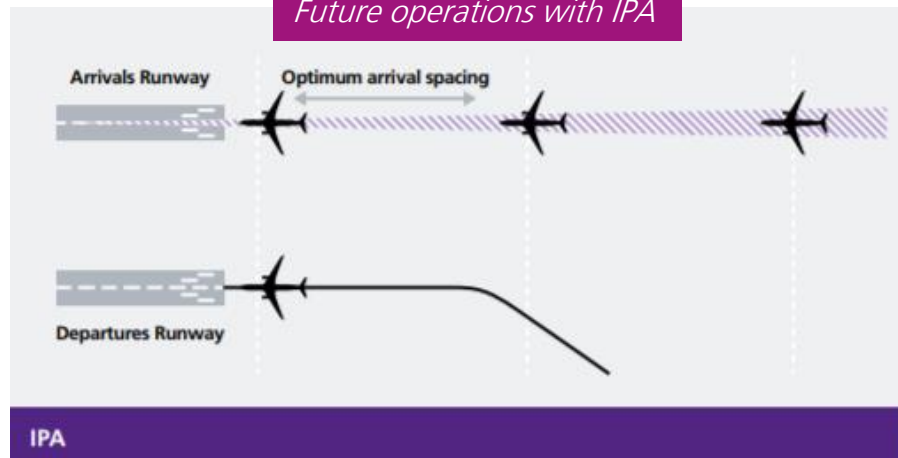
AIRSPACE CHANGE – TWO RUNWAY OPERATIONS

How does IPA work in practice...

Current operations

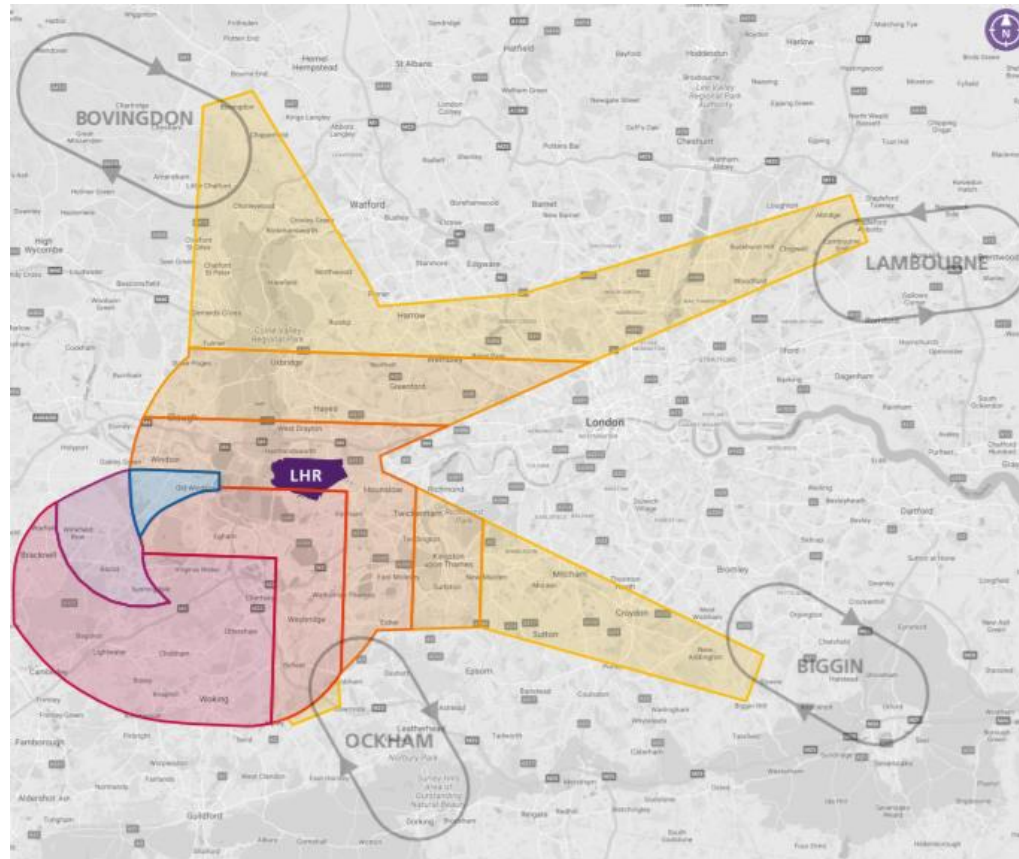


Future operations with IPA



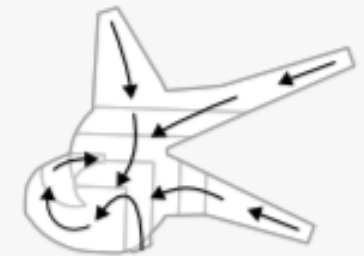
EXAMPLE OF AN IPA DESIGN ENVELOPE

In total there are 3 design envelopes for arrivals flight paths



This is the design envelope for the **southern runway** on **easterly operations**

Direction of descending aircraft within the envelope IPA A3



Consultation question: What sites or local factors should we be aware of in your area (or other area of interest to you), when designing new arrival flight paths to make better use of our existing two runways?

HOW ARE WE CONSULTING

- 2.7 million leaflets
- 30 main consultation events, plus bespoke events
- Dedicated consultation website with postcode checker
- Media, social and digital advertising
- Advertising in 47 local and regional newspapers
- Digital billboards
- Local and regional radio advertisements
- 23 document inspection locations

