

# Gatwick Northern Runway Project

GATCOM Virtual Briefing

Noise Insulation Scheme and Noise Envelope

26<sup>th</sup> November 2021



# Agenda

The purpose of the briefing is to describe the Noise Insulation Scheme and the Noise Envelope that GAL propose with the Northern Runway Project, and the scope for interested parties to influence the final designs.

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|--|----------------|
| 1. Northern Runway Project Air Noise Mitigation Overview | Slides 3       |
| 2. Noise Insulation Scheme                               | Slides 4 - 9   |
| 3. Noise Envelope  | Slides 10 – 15 |
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# Air Noise, Proposed Mitigation Measures

**No airspace change.** This will avoid the noise impacts often associated with new flight paths.

**Only departures** would use the northern runway, except during maintenance (as is currently the case).

Noise modelling has assumed that use of the northern runway would be limited to the period 06:00 hour to 23:00 hours, **avoiding scheduling flight in the majority of the more sensitive night-time period.**

GAL would operate flights from the northern runway using procedures designed to minimise noise impacts, in line with its current processes and the commitments of the Noise Action Plan.

## Noise Insulation Scheme

**Noise Envelope** – sets legal limits on noise



# Noise Insulation Scheme

- Inner Zone – the highest level of noise insulation to avoid significant effects above SOAEL (approx. 450 households)
- Outer Zone - for homes within the forecast Leq 16 hour 54 dB noise contour (approx. 3,300 households)
- Schools
- Home Relocation Assistance Scheme

<https://www.gatwickairport.com/globalassets/company/future-plans/northern-runway/2021/nis.pdf>





# Noise Insulation Scheme - Outer Zone

Qualifying noise level – forecast Leq 16 hr day 54dB or existing NIS. (regardless of noise increase or decrease)

Residential properties would be offered, for noise sensitive rooms (bedrooms, sitting rooms, dining rooms and studies):

- acoustic ventilators

This would allow windows to remain closed more easily in summer, which, with modern double glazed windows, would increase the sound attenuation of the window by approximately 15 to 20dB.

- For properties with older single glazed windows, double glazed windows would be offered to noise sensitive rooms in addition to ventilators to ensure equivalent levels of protection.

(subject to consultation and to be finalised as part of the DCO application)



# Noise Insulation Scheme - Inner Zone

Qualifying noise level – forecast SOAEL Leq 16 hr day 63dB or Leq 8 hour night 55dB.

The highest level of noise insulation to avoid significant effects.

Residential properties would be offered, for noise sensitive rooms (bedrooms, sitting rooms, dining rooms and studies):

- noise insulation in the form of replacement acoustic glazing or internal secondary glazing to all windows
- acoustic ventilators
- blinds

Additionally, the offer would include acoustic upgrading of bedroom ceilings where practicable if they are found to be allowing more noise intrusion than the closed acoustic glazing provides.

(subject to consultation and to be finalised as part of the DCO application)



# Noise Insulation Scheme – Schools

A new Schools Noise Insulation Scheme is also proposed for all schools with noise sensitive teaching spaces within the forecast Leq 16 hr 51dB noise contour.

The PEIR identifies 21 ‘schools’ above this noise level, with only 4 predicted to have noise levels increase by >1dB (<=1.3dB).

Where schools are concerned that aircraft noise could be affecting teaching, each classroom area will be surveyed to assess the effects of all types of noise including local road traffic.

Noise insulation measures could include improved glazing and acoustic fresh air ventilation and GAL will work with the school to deliver a suitable noise insulation package if found to be required.

(subject to consultation and to be finalised as part of the DCO application)



# Home Relocation Assistance Scheme

In order to offer home owners the option to move from the areas most affected by the highest noise levels from the Project, home owners newly within the Leq 16 hr 66 dB noise contour as a result of the Northern Runway Project coming into operation, would be offered a package to assist them in moving.

This exceeds the policy requirement at 69dB.

(subject to consultation and to be finalised as part of the DCO application)



# Noise Envelope - Options Considered

**CAP 1129, 2013** outlines the following main options for noise envelopes:

- aircraft movement caps
- passenger throughput cap
- noise quota count (QC) cap
- noise level caps
- population/dwellings exposed to noise
- number of people annoyed (daytime)
- number of people sleep-disturbed (night-time)
- Person-Events Index (PEI)
- Average Individual Exposure (AIE)
- noise contour shape
- noise contour area**



# Which Noise Contours ?

Using the areas of Leq 16 hour day or Leq 8 hour night contours is the most appropriate noise contour option.

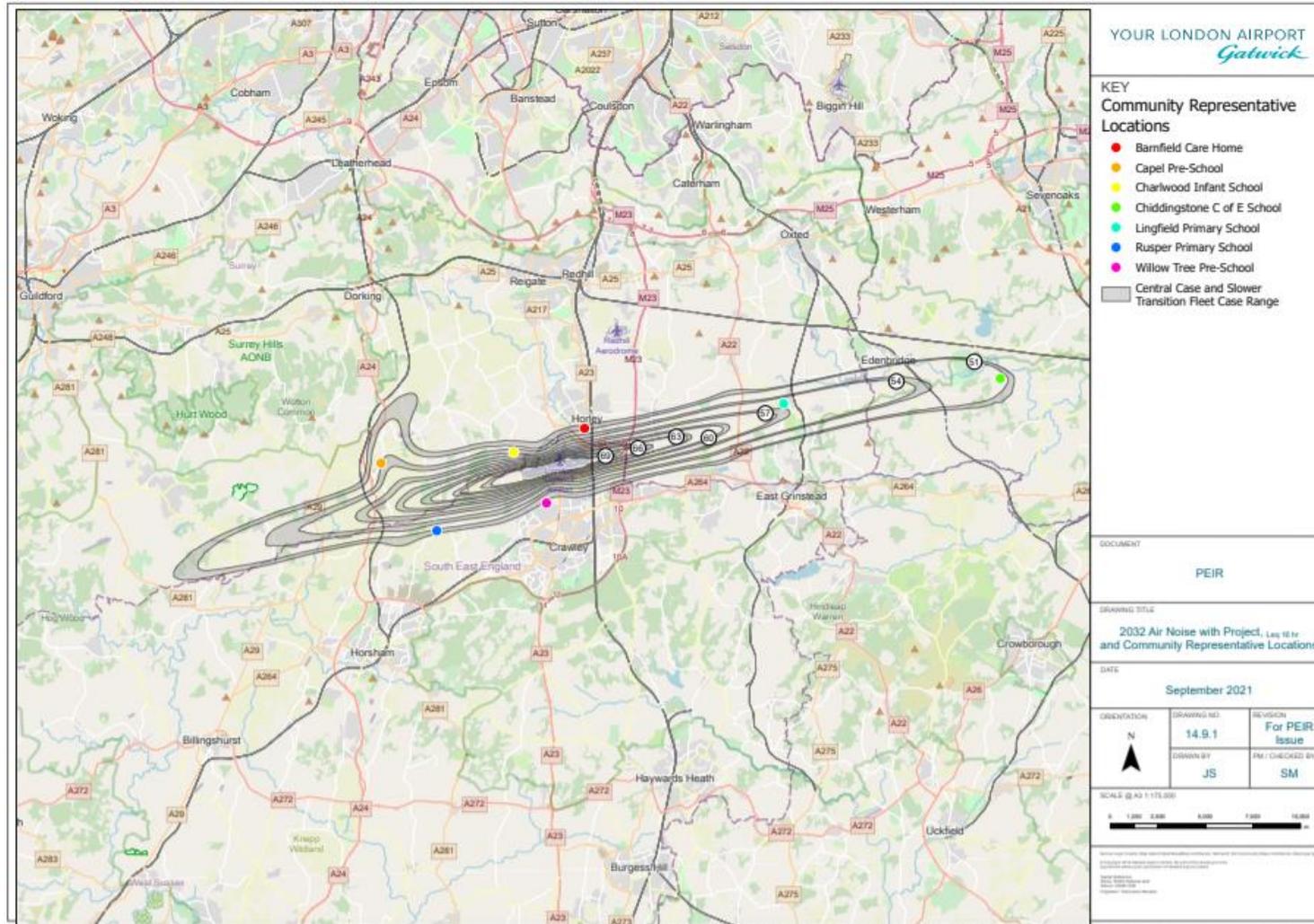
It would incentivise the airport to incentivise use of the quietest aircraft, using the quietest operating procedures, whilst allowing the airport to grow within a certain noise limit. In order to give certainty on future both day and night noise, Leq 16 hour day and Leq 8 hour night contours would be needed.

A larger contour, encompassing communities affected further from the airport would better reflect community impact, and unlike a QC limit would allow the benefit of improved operating procedures such as steeper departures and low noise arrivals procedures to be measured and hence incentivised.

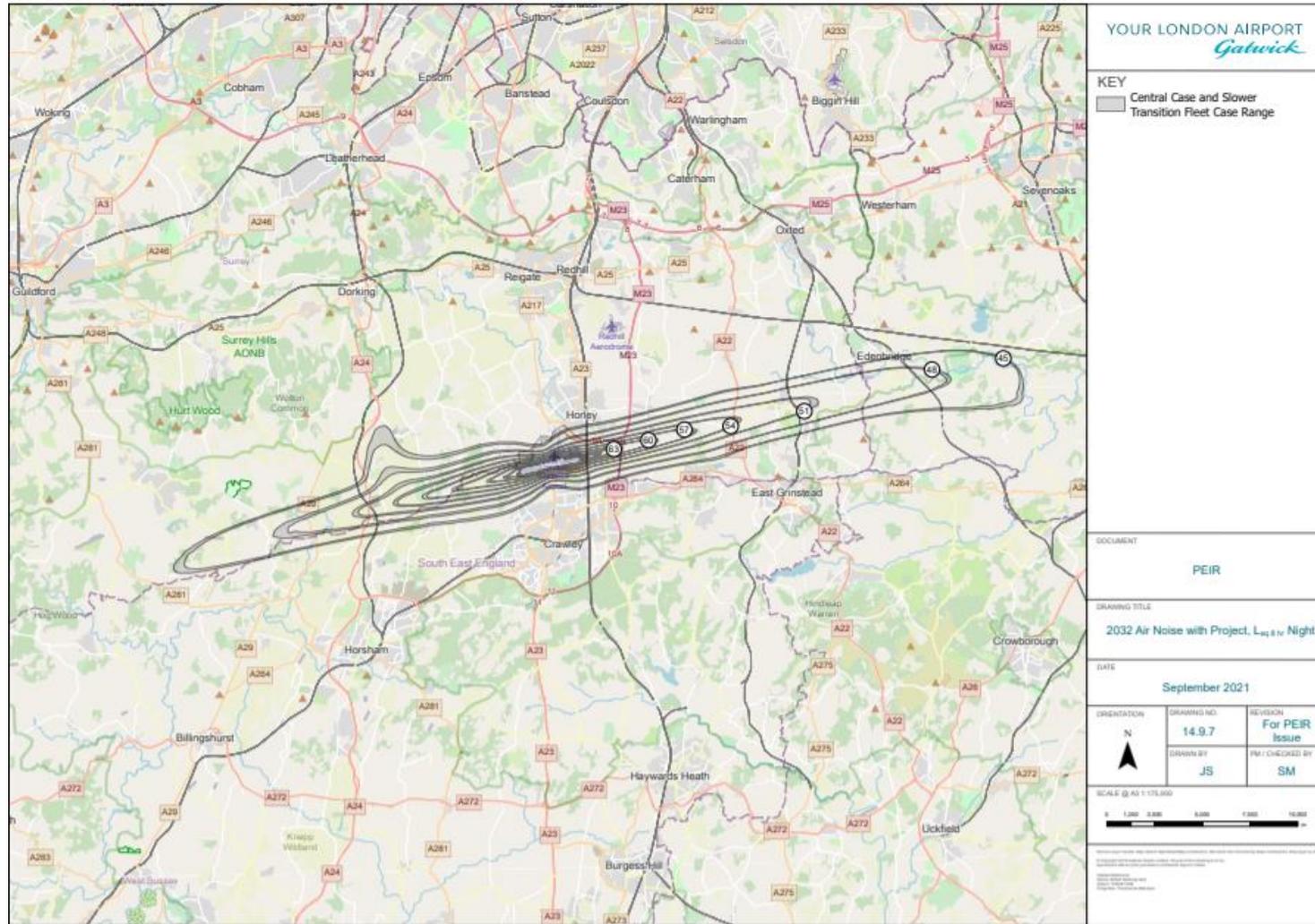
The most appropriate contour levels are therefore the day and night Lowest Observable Adverse Effect Level (LOAEL) prescribed by DfT of Leq 16 hour day 51 dB and Leq 8 hour night 45 dB.



# Forecast Leq 16 hr Day Noise Contours, 2032 NRP



# Forecast Leq 8 hr Night Noise Contours, 2032 NRP



# Proposed Noise Envelope

By the end of the first year after opening of the reconfigured northern runway pursuant to the Project, and thereafter, the area enclosed by the 92 day summer season average mode noise contours produced by the CAA shall not exceed the following:

- Leq 16 hour day 51 dB: 146.7 km<sup>2</sup>
- Leq 8 hour night 45 dB: 157.4 km<sup>2</sup>

By the end of the first year in which annual commercial ATMs exceed 382,000, and thereafter, the area enclosed by the 92 day summer season average mode noise contours produced by the CAA shall not exceed the following:

- Leq 16 hour day 51 dB: 125.7 km<sup>2</sup>
- Leq 8 hour night 45 dB: 136.1 km<sup>2</sup>

The area of the Leq day and night contours will not exceed the limits above, and the noise envelope would provide certainty to the community that noise levels will be limited and will reduce in the future as the airport grows so as to share the benefits of that growth and new technologies with the community.

GAL will report on performance within the noise envelope annually and set in place internal management processes to forecast performance in the years ahead so as to pre-empt potential non-compliance and put in place operating practices and measures to reduce noise before an exceedance arises. Such measures would be subject to consultation with industry and community stakeholders if they trigger the requirements of Regulation 598.



The proposed noise envelope provides a guarantee to local residents that the airport must be quieter than it was in 2019 before the Northern Runway can operate at its full planned capacity



# Consultation

Regulation 598 prescribes consultation with a very wide group of stakeholders including:

- local residents and their representatives, local authorities
- airlines, the slot coordinator; other airports
- Air Navigation Service Providers, and Eurocontrol

This process is independent of the DCO Consultation.

GAL has developed the noise envelope and NIS taking account of the local situation at Gatwick.

GAL will consult with all interested parties on the noise envelope and NIS proposal in the PEIR and will take account of feedback before submitting the noise envelope and NIS proposals within the application for development consent.

The Secretary of State will be ultimately responsible for determining the application for development consent with the benefit of a recommendation from the Examining Authority.

If the noise envelope is secured as part of the development consent order, a failure to comply with its terms would constitute a criminal offence under the Planning Act 2008.

GAL seeks views from all stakeholders on the proposed NIS and noise envelope for consideration as part of this consultation.



# End

Please provide your response to the consultation:

Northern Runway Consultation website:

<https://www.gatwickairport.com/business-community/future-plans/northern-runway/>

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