



YOUR LONDON AIRPORT  
*Gatwick*

*Our northern runway:  
making best use of Gatwick*

## Noise Insulation Scheme

Autumn 2021

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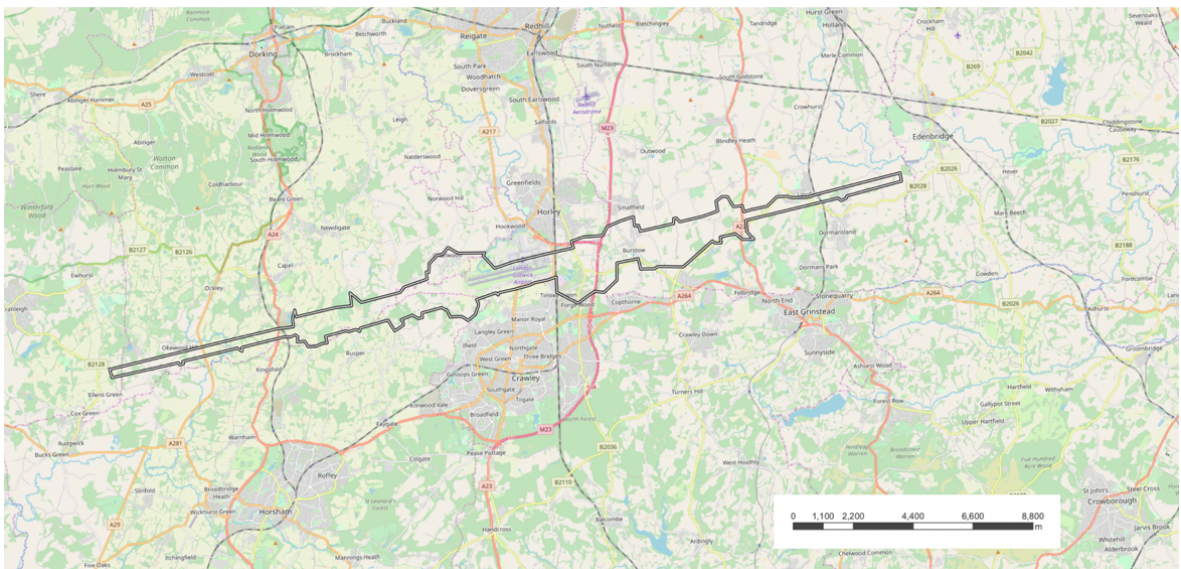
# 1 Introduction

- 1.1.1 At present, the Northern Runway at Gatwick cannot be used when the main runway is in use, and vice versa. The Northern Runway Project would allow the coordinated use of both the main and northern runways at Gatwick. Aircraft would be able to depart from the northern runway in between movements (arrivals and departures) on the main runway.
- 1.1.2 The required changes to the airfield, to enable this dual runway operation could be complete by around 2029, and from this point, both runways would be available for coordinated use throughout the day.
- 1.1.3 Our forecasts show that the combined noise from the two runways would be broadly similar in future years to the noise levels experienced from the single runway in 2019 (when measured using the Government's preferred measure of noise exposure - Leq contours). Night noise levels are forecast to be lower in future than today. Our preliminary assessment indicates that aircraft noise from use of the two runways would generally mirror or improve on the noise levels experienced from the single runway in 2019, depending on the rate of technological advancement in aircraft fleet in the coming years.
- 1.1.4 However, to help mitigate the noise impacts associated with the airport's growth under the Northern Runway Project we have undertaken a review to assess how our existing Noise Insulation Scheme (NIS) could be improved. The details are set out in this document.
- 1.1.5 We also present proposals for new measures to assist those newly within the highest noise areas to move home, and proposals for sound management interventions in the most noise affected schools. We are seeking views on these proposals as part of the consultation and will have regard to the feedback when finalising the proposed replacement NIS as part of the DCO application" or equivalent

## 2 Current Gatwick noise insulation scheme

- 2.1.1 The current Gatwick NIS was based on a Leq16hr 60dB contour forecast in 2014, with 15km extensions to cover areas under the extended runway centreline and adjusted to accommodate various residential areas. At the time of its introduction in 2014, this was seen as one of the most innovative schemes in the UK and exceeded the then existing Government policy that noise insulation should be provided at levels of Leq 63dB. Approximately 2,000 homes are covered by this scheme.

**Figure 1 Current Gatwick Noise Insulation Scheme**



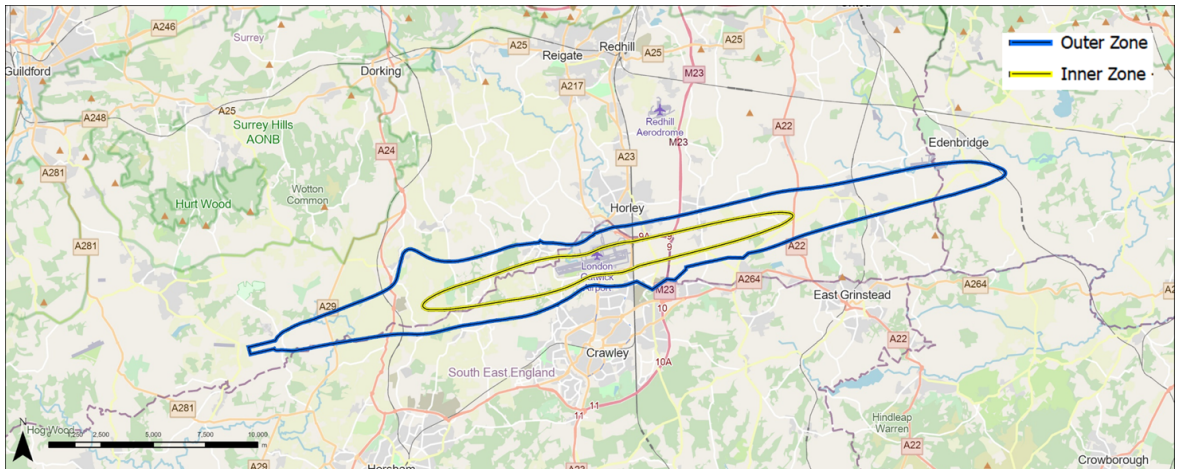
## 3 Considering a future noise insulation scheme for Gatwick with the Northern Runway Project

- 3.1.1 It is Government policy that the Leq “metric” should be used as the primary metric for assessing the effects to health and quality of life from exposure to aviation noise.
- 3.1.2 We also note that the Government has been consulting on noise insulation schemes as part of its future aviation policy. In its consultation *Aviation 2050 — the future of UK aviation* (December 2018) it proposed a number of measures including: a) extending the noise insulation policy threshold beyond the current 63dB LAeq 16hr contour to 60dB LAeq 16hr and b) to require airports to consider how effective their existing noise insulation measures are, the effectiveness of noise insulation, and whether other factors (such as ventilation) need to be considered.
- 3.1.3 Finally, we have looked at other major airports’ proposed NIS schemes and how our proposed scheme would benchmark with those offered elsewhere. We have noted particularly that several other airports provide for logical tiers of NIS grants, with a more generous NIS scheme for people living in areas of higher noise.

## 4 The Proposed DCO Noise Insulation and Compensation Scheme

- 4.1.1 We intend to continue to use the Leq noise metric to set a new boundary for our Noise Insulation Scheme.
- 4.1.2 However, we propose to enhance the existing NIS by introducing new outer and inner NIS zones which will offer a tiered noise insulation package depending on the noise experienced at the location. Those living closer to the airport and experiencing higher levels of noise, will benefit from a more extensive insulation package than those living further away.
- 4.1.3 We expect the largest Leq contour area to occur in about 2032. After 2032, airline fleet changes are expected to result in the introduction of quieter aircraft which over time will result in a progressive reduction of the noise footprint, even though the number of aircraft movements will increase. As such, we propose to use the forecast 2032 Leq contour area to set the geographical boundary for our enhanced NIS. By taking the 'worst-case' assessment year, it ensures a conservative approach is taken to the revised NIS footprint and so provides robust noise impact mitigation.
- 4.1.4 We propose that the inner zone should be based on the predicted Leq 16 hr 63dB daytime and Leq 8 hr night 55dB summer noise contours for 2032. The inner zone would be formed on the larger of these, the Leq 8 hr night 55dB, which fully encloses the Leq 16 hr 63dB daytime contour. These noise levels have been assessed to be threshold levels where noise effects to health and quality of life to residents would become significant if noise insulation was not provided. We propose that people living in these areas should be able to apply for a full package of noise insulation (see the table below for details).
- 4.1.5 For the new outer zone, we intend that the daytime Leq 16 hour 54 dB contour be used as the outer boundary. This goes significantly further than what emerging Government policy proposes should be required for a standard airport NIS.
- 4.1.6 The proposed outer zone covers a significantly larger area than the existing single-tier scheme, however, in a few areas the existing scheme extends a little further from the airport than the proposed outer zone where its boundary was drawn to match the patterns of settlement on the ground. We have taken the view that we should nevertheless include these areas within our revised scheme, despite the forecasts indicating they would not experience noise levels of greater than the Leq 16 hour 54dB limit. Our outer zone proposal will provide for noise insulation and ventilation to noise sensitive rooms (see the table below) and is also open to people who have accessed the previous scheme, where additional insulation or ventilation would provide benefit.
- 4.1.7 We propose that the new scheme would commence at the time construction of the Northern Runway Project begins so that properties can be appropriately modified before the reconfigured northern runway becomes operational.

**Figure 2 Proposed Noise Insulation Scheme**



- 4.1.8 The table below provides a description of the proposed package of measures that would be offered to properties in the proposed Inner and Outer Zones. The specific measures will be based on an assessment by Gatwick of what insulation and ventilation is necessary for the individual property concerned.
- 4.1.9 These proposals will be further refined and developed, in view of consultation feedback, and included as part of the DCO application.

Noise Insulation Scheme (NIS)	Zone definition	Summary of Proposed Insulation Package (subject to consultation and to be finalised as part of the DCO application)
<b>New Inner Zone</b>	Leq 8 hr night 55dB contour (incorporating Leq 16hr daytime 63dB contour)	Residential properties within this zone would be offered noise insulation in the form of replacement acoustic glazing or internal secondary glazing to all windows, acoustic ventilators and blinds to noise sensitive rooms (bedrooms, sitting rooms, dining rooms and studies), and replacement doors to noise sensitive rooms if necessary. 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.
<b>New Outer Zone</b>	Leq 16 hr 54dB contour	The New Outer Zone boundary covers a larger area and encompasses the existing NIS scheme. Residential properties within this zone would be offered acoustic ventilators to noise sensitive rooms (as listed above). 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.

## 5 Schools insulation scheme

- 5.1.1 A new Schools Noise Insulation Scheme is also proposed for all schools with noise sensitive teaching spaces within the forecast 2032 Leq 16 hr 51 dB noise contour. 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.

## 6 Home relocation assistance scheme

- 6.1.1 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.

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