



Gatwick Airport Northern Runway Project

Environmental Statement

Appendix 14.9.10: Noise Insulation Scheme

Book 5

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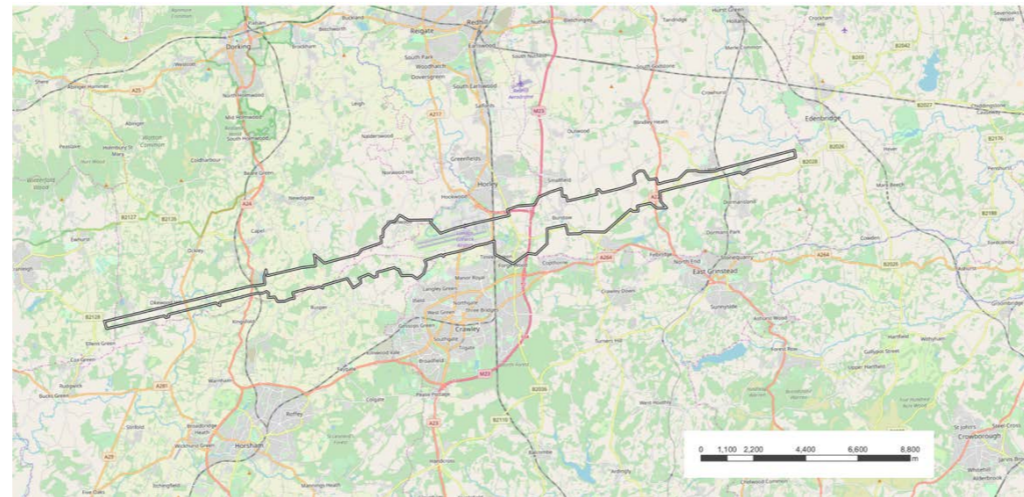
1 Introduction

- 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 air noise forecasts show that the combined noise from the two runways would show small increases in some areas and small decreases in others. Overall noise levels in the day would increase compared to 2019. 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) should be improved. In order to provide fair noise mitigation to those already affected, the new scheme offers noise insulation to properties within given air noise levels predicted with the operation of the Northern Runway regardless of whether noise levels go up or down as a result of the Northern Runway. Our ground noise forecasts show some areas near the airport's perimeter where ground noise would increase during co-ordinated dual runway operations. The new noise insulation scheme would also be available in these areas to help mitigate impacts on receptors in these areas. The details are set out in this document.
- 1.1.4 We also include new measures to assist the small number of residential properties within the highest noise areas to move home if they choose to do so, and proposals for sound management interventions in the most noise affected schools. We have sought views on these proposals as part of the PEIR consultation and considered those when developing this scheme that is submitted as part of the DCO application.

2 Current Gatwick Noise Insulation Scheme

- 2.1.1 The current Gatwick NIS was based on a $L_{eq, 16hr}$ 60dB contour forecast in 2014 for growth to 46 million passengers per year, 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 Government policy that noise insulation should be provided at levels of $L_{eq, 16hr}$ 63dB. Approximately 2,000 homes are covered by this scheme.
- 2.1.2 The Gatwick NIS has recently been reviewed, and currently (June 2023) offers replacement acoustic glazing and doors up to a cost of £4,300 plus VAT. Recipients can top up to increase the package provided at the same rates. There is currently no scheme for noise insulation for schools or for home relocation assistance.

Diagram 2.1 Current Gatwick Noise Insulation Scheme



- 2.1.3 An interactive map of the current scheme is available here: [LGW NIS¹](https://aircraftnoise.gatwickairport.com/2021/03/29/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 L_{eq} "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 $L_{Aeq, 16hr}$ contour to 60dB $L_{Aeq, 16hr}$ 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 We have also 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. We have also added a night noise qualifying noise level in recognition of the importance of mitigating noise impacts at night.

4 The Proposed DCO Noise Insulation and Compensation Scheme

- 4.1.1 We intend to continue to use the L_{eq} noise metric to set a new boundary for our Noise Insulation Scheme.
- 4.1.2 However, to enhance the existing NIS we will introduce 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 and experiencing lower levels of noise.
- 4.1.3 We expect the largest L_{eq} contour area to occur about 3 years after the commencement of dual runway operations, i.e., in about

¹ <https://aircraftnoise.gatwickairport.com/2021/03/29/noise-insulation-scheme/>

2032 based on the assumed construction programme. The Environmental Statement assesses the noise impacts of the Project on the basis of a range in the rate of fleet transition from older to newer quieter aircraft, referred to as the Central Case and the Slower Transition Case. This is to address uncertainty in the rate at which airlines will transition to quieter aircraft in the future. The Slower Transition Case results in older noisier aircraft flying for longer giving higher noise levels than the Central Case. We propose to base the new NIS on the worst-case end of this range, associated with the Slow Transition Fleet. As such, we propose to use the forecast 2032 L_{eq} contour area to set the geographical boundary for our enhanced NIS. By taking the 'worst-case' assessment year, and fleet, it ensures a conservative approach is taken to the revised NIS footprint and so provides robust noise impact mitigation.

people who have accessed the previous scheme, where additional insulation or ventilation would provide benefit.

Diagram 4.1 Proposed Noise Insulation Scheme



- 4.1.4 The inner zone will be based on the predicted L_{eq} 16 hr 63dB daytime and L_{eq} 8 hr night 55dB summer air noise contours for 2032. The inner zone would be formed on the larger of these, the L_{eq} 8 hr night 55dB, which fully encloses the L_{eq} 16 hr 63dB daytime contour. For ground noise, the same qualifying noise levels would apply and the majority of properties qualifying would also qualify due to air noise, but eligibility would be extended to those outside the air noise zone based on measurements of ground noise after the northern runway is in operation. These noise levels have been assessed as the levels where noise effects to health and
- 4.1.5 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).
- 4.1.6 For the new outer zone, we intend that the daytime L_{eq} 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.
- 4.1.7 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 scheme, despite the forecasts indicating they would not experience noise levels of greater than the L_{eq} 16 hour 54dB limit. Our outer zone will provide for noise insulation and ventilation to noise sensitive rooms (see the table below) and is also open to

- 4.1.8 An interactive map of the proposed scheme is available here: <https://www.gatwickairport.com/business-community/future-plans/northern-runway/>
- 4.1.9 The table below provides a description of the package of measures that would be offered to properties in the Inner and Outer Zones. The specific measures are based on an assessment by GAL of what insulation and ventilation is necessary for the individual property concerned.

Noise Insulation Scheme (NIS)	Zone definition	Summary of Proposed Insulation Package
New Inner Zone	L_{eq} 8 hr night 55dB contour (incorporating L_{eq} 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). Replacement doors to noise sensitive rooms will also be offered if necessary. Additionally, the offer would include acoustic upgrading of bedroom ceilings where practicable and where the existing ceiling is found to allow more noise intrusion than the closed acoustic glazing provides.
New Outer Zone	L_{eq} 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. 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.

- 4.1.10 The Inner Zone scheme will be launched at the commencement of works to build the Project (as defined in the DCO), with the aim of completing the scheme prior to opening of the Northern Runway. The scheme will remain after the runway opens and would be limited to one application per property. Applications must be made by the property owner. Eligible properties will be visited by a qualified surveyor to discuss and assess details of the insulation package appropriate for the property and the owner's requirements. The appropriate package of measures will be developed and installed with GAL funding up to a total value of £20,000 to be paid to the contractor appointed by GAL to carry out the works.
- 4.1.11 Eligibility for the Inner Zone scheme noise insulation package due to ground noise will be established on the basis of measurements of levels of ground noise carried out after the Project is operating. The areas where this is possible are mainly to the north (Oakfield Cottages) and to the south of the airport (Lowfield Heath) where the Inner Zone runs close to or inside the airfield. Where ground noise is assessed through measurement after opening, the cumulative noise levels from ground noise and air noise will be considered in assessing eligibility for the Inner Zone NIS.
- 4.1.12 The Outer Zone scheme would be launched once the majority of the Inner Zone scheme is complete so as to give priority to those with the highest noise levels. Applications must be made by the property owner. Eligible properties will be visited by the contractor to discuss and assess details of the insulation package appropriate for the property and the owner's requirements. The appropriate package of measures will be developed and installed with GAL funding up to the following amounts (plus VAT), to be paid to the contractor appointed by GAL to carry out the works:
 - L_{eq} 16 hr 54 to 57 dB £3,500
 - L_{eq} 16 hr 57 to 60 dB £5,000
 - L_{eq} 16 hr 60 to 63 dB £8,000
- 4.1.13 As with the current scheme, homeowners wishing to have more acoustic insulation work carried out by the contractor may do so at their own expense at the agreed scheme rates.
- 4.1.14 Gatwick will appoint a contractor to deliver the scheme and will publicise and administer it in a similar way to the current scheme. The scheme would be reviewed every five years including the sums payable.
- 4.1.15 In order to ensure equitable access to the scheme, including for groups considered vulnerable to noise related health effects in ES Chapter: 18 Health and Wellbeing, there will be targeted

support in how the scheme is promoted and administered. Details will be agreed with the relevant local authority public health teams and may include:

- tenants being able to initiate the application, with implementation still subject to landlord approval;
- support for households that do not have English as a main language, have low literacy or where there are particular vulnerabilities due to age, disability or poor health; and
- safeguarding and clear communication protocols for surveys and works in the homes of vulnerable persons.

4.1.16 The proposed new scheme for residential properties offers a more comprehensive package of mitigation and considerably higher funding than the current scheme.

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 $L_{eq,16\text{ hr}} 51$ 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 schools to deliver a suitable noise insulation package if found to be required.

5.1.2 The scheme will apply only to classrooms used for teaching, and not to nurseries or pre-schools where formal teaching requiring low ambient noise conditions is not generally anticipated. It will also be limited to schools where noise levels are forecast to increase as a result of the Project within the 2032 $L_{eq,16\text{ hr}} 51$ dB noise contour. Any eligible school that applies will be surveyed by a suitably qualified surveyor and their requirements will be discussed in detail to arrive at the appropriate package of measures. Where this includes additional ventilation to allow windows to remain closed, it would be limited to fresh air supply and/or extraction and would not normally include air conditioning or cooling.

6 Home Relocation Assistance Scheme

6.1.1 In order to offer homeowners, the option to move from the areas most affected by the highest noise levels from the Project, homeowners within the $L_{eq,16\text{ hr}} 66$ dB standard mode noise

contour with the Northern Runway in operation (as modelled based on actual operations the previous summer), would be offered a package to assist them in moving. Our noise forecasts indicate about 100 homes in this noise zone in the noisiest year. Approximately 75 of these homes have already (2019) been above this noise level and we expect only a small number of homeowners to take up this offer.

6.1.2 The scheme would open to homeowners upon commencement of routine operations on the Northern Runway facilitated by the Project. Eligible applicants would receive a payment covering reasonable moving costs, estate agent fees up to 1% of the sale price, and stamp duty, up to a total maximum of £20,000. The scheme would be limited to one claim per property.