



# Gatwick Airport Northern Runway Project

Written Summary from Oral Submissions from Issue  
Specific Hearing 5: Aviation Noise

**Book 10**

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## 1 Introduction

- 1.1.1 This document contains Gatwick Airport Limited's (the "**Applicant**") summary of oral evidence and post hearing comments on submissions made at Issue Specific Hearing 5 ("ISH5") held on 6 March 2024. Where the comment is a post-hearing comment submitted by the Applicant, this is indicated. The Applicant has separately submitted at Deadline 1 (Doc Ref. 10.9.6) its response to the Examining Authority's ("ExA") action points arising from ISH5 required for Deadline 1, which were published on 8 March 2024 [\[EV10-005\]](#).
- 1.1.2 This document uses the relevant headings for each item in the agenda published for ISH5 by the ExA on 30 January 2024 [\[EV2-001\]](#).
- 1.1.3 The Applicant, which is promoting the Gatwick Airport Northern Runway Project (the "**Project**") was represented at ISH5 by Scott Lyness KC, who introduced the following persons to the ExA:
- (a) John Rhodes OBE, Senior Director, Quod;
  - (b) Martyn Jarvis, Senior Associate, Herbert Smith Freehills;
  - (c) Steve Mitchell, Director, Mitchell Environmental;
  - (d) Seth Roberts, Principle Consultant at Hayes McKenzie;
  - (e) Murray Taylor, Director, Nicol Taylor Consulting; and
  - (f) Andy Sinclair, Head of Noise and Airspace Strategy, Gatwick Airport Limited.

## 2 Agenda Item 3: Civil Aviation Noise Law and Policy, and Other Relevant Policies

- 2.1.1 The ExA asked the Applicant what legislation is applicable to aviation noise.
- 2.1.2 The Applicant explained that the main relevant primary legislation is the Civil Aviation Act of 1982 ('**CAA 1982**'). Section 80 of that Act provides the Secretary of State ('**SoS**') with powers to designate aerodromes in Great Britain for the purposes of regulating noise and vibration from aircraft using those airports. Gatwick is a designated airport for the purposes of the Act, and therefore the relevant provisions apply to Gatwick's operation. This was important as designation confirmed the role of the SoS in overseeing noise control at strategically significant airports such as Gatwick. The provisions of CAA 1982

allow for the implementation of a range of noise controls directly relating to aircraft operations. These include controls provided for by section 78 that are set out in statutory notices and published in the Gatwick Aerodrome Aeronautical Information Publication. Relevantly, there are noise controls for departing and arrivals flights (minimum heights at identified distances from the airport), as well as a system of departure noise limits under which all aircraft leaving the airport are measured at a set of locations about 3km from the airport) and would be subject to fines for exceeding these limits. In addition, section 78 of the CAA 1982 allows the SoS to limit aircraft movements during certain periods. Gatwick has had such limitations imposed in respect of night flights, which set movement limits (11,200 in the summer and 3250 in the winter) in the period 2330-0600 by reference to a Quota Count (QC). Aircraft types are given a QC value according to how much noise they make during take-off and landing. Movements score QC against a maximum allowable quota for each season. These restrictions apply irrespective of the controls put in place by the DCO and will continue to do so. There are other legislative controls that apply, and these have been explained in response to a request for information by the ExA (see [\[AS-115\]](#)), as well as in section 3 of the **Air Noise Modelling Appendix 14.9.2 to the Environmental Statement ('ES')** [\[APP-172\]](#) and **ES Chapter 14: Noise and Vibration** [\[APP-039\]](#).

- 2.1.3 The Applicant offered to explained these matters further, but the ExA directed the Applicant to paragraph 14.2.5 of the ES Chapter 14 which provides "The Civil Aviation Act of 1982 provides that no action for trespass or nuisance can be taken as long as an aircraft observes the provisions of any Air Navigation Order."
- 2.1.4 The Applicant confirmed that this had been referred to in the ES and referred to section 77(2) of the Civil Aviation Act 1982, which provides that no action shall lie in respect of nuisance by reason only of the noise and vibration caused by aircraft on an aerodrome by virtue of an Air Navigation Order, as long as the provisions of any such Order are duly complied with.
- 2.1.5 In response to questions from the ExA about the scope of the Air Navigation Order, and the protection provided by section 77, by reference to ground noise, the Applicant indicated that it could provide further information if requested, but that in respect of ground noise this was considered to fall within the scope of ANO 2006. To the extent that it was established that any source of noise was not covered by section 77, the Applicant stated its initial view that it assumed these could be covered by controls over nuisance, in particular statutory nuisance, however this would require some further consideration having regard to the scope of section 77 and the Order (and would depend on the nature of the alleged nuisance). The ExA followed up with questions and scenarios about how

the public might make complaints about noise coming from the Airport, leading to a question on whether the protection provided under section 77 could affect either complaints or have the potential to affect peoples' attitude toward the noise observed.

- 2.1.6 The Applicant explained that attitudes to aviation noise vary dramatically between different people for many reasons, and it is why there is an enormous range in the response that people have to a given level of aircraft noise. The Applicant could not comment specifically on any person's attitude but did note that the protection afforded to airports is no different to that of a road. The Applicant added that it responds to individual complaints through a strict and comprehensive process. It is held to task over these responses, and it reports through a series of committees on a quarterly basis about how rapidly it does respond and the quality of the responses that it gives.
- 2.1.7 In response to a query from the ExA about whether this regulatory environment warranted a precautionary approach, the Applicant stated that it did not consider protection under the CAA 1982 somehow imposed any particular precautionary requirements as far as assessment or control is concerned. The Applicant noted that knowledge that government had through legislation provided for airports to be immune from nuisance claims in respect of activities which fall within the scope of their Air Navigation Order, could be said to indicate to some that the government had made provision for the noise to occur. In any case, there is nothing in the legislation or policy to indicate that due to the legislative protection afforded by section 77, a precautionary approach was more generally required when assessing noise impacts.
- 2.1.8 The ExA then asked what the Airports NPS 2018 says at paragraph 5.68 with respect to noise.
- 2.1.9 The Applicant explained that paragraph 5.68 of the ANPS is a useful summary of the three aims of the large range of aviation noise policy; those aims being to:
- Avoid significant adverse impacts on health and quality of life from noise;
  - Mitigate and minimise adverse impacts on health and quality of life from noise; and
  - Where possible, contribute to improvements to health and quality of life.
- 2.1.10 The Applicant went on to explain that the paragraph 5.68 expressly provides that its aims must be considered "*within the context of Government policy on sustainable development*" and that the ANPS directs the reader to the Noise Policy Statement for England (the NPSE) which is the origin of the three aims and which explains that noise must be considered within the wider context of

policies for sustainable development. This explains a consistent principle across all national aviation policy – that a balance must be struck taking account of the environmental effects of aviation but also the benefits of aviation growth. This is most recently set out in the Government’s Overarching Aviation Noise Policy Statement, 2023. The Applicant further noted that the phrase 'adverse impacts on health and quality of life' is subject to a number of precedents which interpret what that means in the context of national policy for sustainable development.

## 2.2. Comments from Interested Parties

2.2.1 In response to the Joint Local Authorities ("JLAs") comments on shoulder periods, the Applicant responded that the DCO should not replicate existing and additional controls on the airport, for example on noise regulation and night flight restrictions. The night flights, for example, and in particular the period of time that should be classified as the night for DfT purposes are currently part of an ongoing consultation with DfT, which is not proposing to change the current restrictions or impose controls over shoulder periods. Other controls must be taken into account and assumed to operate effectively.

2.2.2 Regarding the JLA’s comments as to the appropriateness of the Civil Aviation Authority's ("CAA") involvement in the noise envelope mitigations and the Airport's Noise Related Operating Restrictions (England and Wales) Regulations 2018, the Applicant considered there to be two separate matters which may be being conflated:

- (a) Under the noise envelope as secured by the DCO, the CAA would perform the role of verifying the monitoring information which the Applicant produces to confirm compliance with the noise envelope annually, and if this is not agreed there is provision for an appeal to the Secretary of State.
- (b) The control afforded by Regulation 598/2014 is separate. Article 6(3) of Regulation 598/2014 relates to how the implementation of the noise envelope is followed up and monitored. The Applicant will publish the verified annual monitoring reports for all stakeholders to consider. At this point, and subject to other provisions in that Regulation, the JLAs would review those and in so doing follow up and monitor their implementation.

2.2.3 The Applicant further added that it is relevant in this context that paragraph 3.10 of the APF explains why the three designated airports are designated:

*“These airports remain strategically important to the UK economy and we therefore consider that it is appropriate for the Government to take decisions on the right balance between noise controls and economic benefits, reconciling the*

*local and national strategic interests. The future of these airports is also under consideration as part of the work of the Airports Commission and it would not be appropriate to change their regulatory status at this time.”*

- 2.2.4 This contrasts with the approach taken for “other airports” in the following paragraph 3.11, which explains that the government invites control measures to be locally agreed with the local authority. The distinction is drawn deliberately.
- 2.2.5 Similarly, the ANPS at paragraph 5.66 talks about controls (obviously written in the context of Heathrow airport) whereby the Secretary of State will expect the applicant to put forward proposals as to how these measures may be secured and enforced, including the bodies who may enforce the measures. The paragraph explains that these bodies might include the Secretary of State, local authorities or the CAA. It is therefore apparent why the Applicant has identified the CAA as the appropriate body.
- 2.2.6 The Applicant went on to explain that, regarding the CAA's role, matters have moved on significantly since relevant representations were made, and the Applicant understands that there is now broad agreement with the CAA as to its proposed role. The Applicant will update the ExA on the progress of these discussions as soon as possible.

### 3 **Agenda Item 5. Lowest Observed Adverse Effect Levels (LOAEL)**

- 3.1.1 The ExA asked the Applicant whether it agreed with the Government's definition of LOAEL set out at 2.20 of the Noise Policy Statement for England 2010.
- 3.1.2 The Applicant affirmed that it did agree with the definition.
- 3.1.3 The ExA asked the Applicant whether it was accurate to say that noise forecast outcomes above the LOAEL do not have to be avoided at all costs or regarded as significantly adverse or unacceptable outcomes.
- 3.1.4 The Applicant agreed, as the policy direction does not require the Applicant to mitigate fully. Rather, the Applicant must minimise and mitigate as far as reasonably practicable in the context of sustainable development. It is when one gets to higher thresholds where there is a stated policy requirement to avoid.
- 3.1.5 The ExA asked the Applicant whether it was fair to say that whether adverse effects become apparent for aircraft noise, depends on the context.

- 3.1.6 The Applicant responded no, as the LOAEL values provided by the DfT and the CAA specifically for aircraft noise are absolute threshold levels to be used to assess a specific noise.
- 3.1.7 The ExA asked the Applicant what was the principal metric that is used by the aviation industry in the UK, and what surveys inform the values assigned to that parameter.
- 3.1.8 The Applicant confirmed that LAeq16h was the principal metric for daytime noise. People's response to noise is varied, due to perceptions and non-acoustic factors, that so it is necessary to rely on guidance that is based on the research that tells us how to describe the changes in noise and the effects it has on people. Much of this research is international, but the most recent piece of work in the UK is the CAP 1506 'Survey of Noise Attitudes 2014: Aircraft Noise and Annoyance,' which confirms that LAeq 16 hr is the metric that correlates best with annoyance due to aircraft noise.
- 3.1.9 By reference to Figure 8 on Page 55 of the CAP1506 document, the ExA asked whether the Applicant considered the graph to be consistent with the UK Health Security Agency Relevant Rep dated 20<sup>th</sup> October 2023 that adverse effects occur below 51dB.
- 3.1.10 The Applicant confirmed that it was consistent.
- 3.1.11 The ExA then asked for the Applicant's comments on the difference between the Leq value used by the Applicant for its assessments, and that considered to be more appropriate by a number of Interested Parties, and the UK Health Security Agency.
- 3.1.12 The Applicant acknowledged that below the LOAEL, some people may be highly annoyed by aircraft noise, as noted in ES Chapter 14, paragraph 14.2.52. The SoNA study showed approximately 7% of the population were annoyed below that value, which is consistent with the statistic provided by the ExA. However, the guidance is predicated on an acknowledgement that one of the challenges in managing noise is working out when mitigation is required, given this diversity of response to noise. It could be set at the top or the bottom of that response, but it is appropriate to rely on policy to help make those judgments. The Applicant considered Government policy to be very clear. In October 2017, the Consultation Response on UK Airspace policy determined what the LOAEL is, in paragraph 2.72. The LOAEL is Leq 16 hr 51 dB for the day and an Leq 8 hr 45 dB night. This was confirmed in the Air Navigation Guidance at paragraph 3.5. The policy goes on to say that these metrics will ensure that the total adverse effects on people can be assessed. It will also ensure airspace decisions are



consistent with the objective of the overall policy to avoid significant adverse effects and minimise adverse impacts. So that policy guidance, which is quite recent, determines that providing an applicant assesses the effects above these LOAELs, it has assessed the total adverse effect in accordance with policy, which is what the Environmental Statement provides for the ExA to help reach a view on the application.

- 3.1.13 The ExA questioned if the Applicant had considered how many of the Relevant Reps that refer to noise are outside the Leq 51dB level used as LOAEL
- 3.1.14 The Applicant replied there are over 2,500 relevant reps that refer to noise but it had not analysed how many of those are inside or outside the LOAEL.
- 3.1.15 **[Post Hearing Note:** To clarify, it is not possible for the Applicant to do this based on the relevant representations received, because the addresses of Interested Parties are not publicly available.]
- 3.1.16 The ExA referred to an area within the TN11 postcode in the area around Penshurst where 150 Relevant Representations had complained about noise, noting these were outside the Leq 51dB LOAEL, and asked how the Applicant's LOAEL level used in the assessment could be correct in that circumstance.
- 3.1.17 The Applicant first caveated its response on the basis that the question originates from the ExA's own assessment of the Relevant Representations and other relevant documents; an assessment which the Applicant had not seen.
- 3.1.18 The Applicant then acknowledged again that below the LOAEL, some people are highly annoyed by aircraft noise, which was already reflected in ES Chapter 14, paragraph 14.2.52. The SoNA study showed about 7% of the population were annoyed below that value, consistent with the statistic provided by the ExA. But the purpose of government guidance was to allow for judgments to be made on where to set the LOAEL, in a context where it was acknowledged that some people would react differently to an identified noise level. The Consultation Response on UK Airspace Policy, as followed into the Air Navigation Guidance, was clear. It determines that providing the Applicant assess the effects above these LOAELs, they will have assessed the total adverse effect in accordance with policy.
- 3.1.19 **[Post Hearing note:** Whilst the Applicant had not had sight of the analysis of 150 Relevant Reps cluster around the Penhurst area referred to by the ExA in the hearing, looking at the area afterwards it is noted the N60 night contours provided in the ES cover this area providing additional information on the likely change in noise in this area. This data is also provided in the online air noise

viewer, the link to which is given in ES Chapter 14, para 14.9.80. Postcode TN118BT in the centre of Penhurst, is outside the Leq 16 hr 51dB and Leq 8 hr night LOAEL contours, and the N60 Night modelling results available in the online viewer indicate that in the noisiest year 2032, with the noisiest fleet (the slower transition fleet), the effect of the Project would be to increase in number of 8 hour night time flights in the summer season from 12.7 to 13.8, i.e. an increase of one per night. This would not lead to a significant noise effect. The Applicant further notes, when referring to the cluster of 150 Relevant Reps, the ExA referred to them as complaints, i.e. against the DCO, which are not directly comparable with highly annoyed as identified through social survey.]

- 3.1.20 The ExA questioned why the Applicant did not refer to the Government's Air Navigation Guidance 2017 in the Application.
- 3.1.21 The Applicant acknowledged this, but noted that it did not believe the Application was inconsistent with the 2017 Guidance, in any event. The 2017 Guidance confirmed the position of government as already set out in its Consultation Response. The Applicant added that the Air Navigation Guidance had also been mentioned within the Overarching Aviation Noise Policy, DfT, March 2023 (see ES Chapter 14 Noise and Vibration ).
- 3.1.22 The Applicant also added that paragraph 3.5 of the 2017 Air Navigation Guidance states the LOAEL of 51dB LAeq16hr for daytime noise and 45dB LAeq8hr for night time noise.
- 3.1.23 The ExA asked about limitations of the CAP1506 survey.
- 3.1.24 The Applicant discussed a variety of points on this matter, before the ExA directed the question back to the question of whether the Applicant considered it had applied the correct LOAEL value, and moreover whether the Applicant was correct to set the LOAEL at 51dB LAeq16hr or if other parties were correct to set the LOAEL at 45dB LAeq16hr. The ExA proposed that one had to be incorrect.
- 3.1.25 The Applicant responded that the phrasing of the question of the LOAEL value in this way does not recognise the fundamental point that there is government policy guidance which indicates what the LOAEL should be. The Noise Policy Statement for England (NSPE) does not set specific LOAEL (or SOAEL) values because it acknowledges that specific levels will need to be determined depending on the noise source. In the case of aviation noise, government has, in Paragraph 3.5 of the 2017 Guidance, carried out the function anticipated under NPSE and provided specific guidance, in a context where (as previously stated), it is already accepted that individual responses to noise vary. The Applicant considers that it is entirely appropriate to rely upon that level which has been

expressed by Government as the LOAEL for the purposes of assessment of aviation noise.

### 3.2. Comments from Interested Parties

3.2.1 In response to the JLA's concerns regarding sensitivity testing for the LOAEL values, the Applicant's explained position was that it was not necessary to carry out sensitivity testing of lower levels in circumstances where the LOAEL has been provided by the Government. The Applicant has adopted the Government's position and did not accept the need to report assessments based on different levels of LOAELs as had been suggested.

3.2.2 In response to various comments from Interested Parties about ground noise, the Applicant suggested this may best be dealt with in detail in writing, before providing a brief response. There is less clear guidance on ground noise, and importantly there is no cut-off for the noise modelling for ground noise in the assessment. Further, aircraft noise has a very different character to ground noise, in brief because air noise is a series of peaks arriving from overhead, while ground noise is more continuous, from multiple sources on the ground. Ground noise is therefore assessed differently, and is set in the context of ambient noise.

## 4 Agenda Item 6. Significant Observed and Unacceptable Adverse Effect Levels (SOAEL and UAEL)

4.1.1 The ExA asked what the definition of SOAEL was, in policy terms?

4.1.2 The Applicant responded that SOAEL is the level at which significant adverse effects on health and quality of life occur. The government guidance states that in real terms, this is the point where noise causes a material change in behaviour, attitudes, or other physiological response; for example avoiding certain activities during a period of intrusion where there's no alternative ventilation, having to keep windows closed most of the time because of the noise potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakenings, and difficulty in getting back to sleep, quality of life diminishes due to change.

4.1.3 Does aviation policy provide a statement as to when significant noise effects are likely?

4.1.4 The Applicant explained that there is no specified value. However, the definition refers to closing windows for the purposes of keeping noise out. This suggests that the definition of a SOAEL is at that point at which the noise levels outside

require windows to be closed to keep the noise out. The APF does state that the noise insulation standard for aircraft noise during the day for the 16 hour Leq is 63dB. There is a clear linkage between SOAEL and noise insulation, which is consistent with the approach to setting SOAEL for other transport noise sources, like roads.

4.1.5 By reference to chapter 3 of the Aviation Policy Framework 2013, the ExA tested whether a lower SOAEL value would be more appropriate to be used by the Applicant in its assessments. The Applicant confirmed that it remained confident in the values in its assessments, where the SOAEL is tied to the point where an individual needs to keep their windows closed. The Applicant further noted that despite the APF being rather dated now, there are many precedent projects since the release of the APF which have taken the same approach, including a number of airport developments consented in recent years.

4.1.6 The ExA asked for information as to where the Applicant's noise insulation mitigation scheme starts from

4.1.7 The Applicant replied that the proposed Noise Insulation Scheme (NIS) in connection with the Project is set out in **ES - Appendix 14.9.10: Noise Insulation Scheme [APP-180]**.

4.1.8 The new NIS Inner Zone would offer the highest level of noise insulation sufficient to avoid significant adverse effect on health and quality of life above the SOAELs ( $L_{eq, 16 \text{ hour}} 63 \text{ dB}$  and  $L_{eq, 8 \text{ hour}} 55 \text{ dB}$ ). There are approximately 400 residential properties within this zone.

4.1.9 The new NIS Outer Zone would be created for homes within the forecast  $L_{eq, 16 \text{ hour}} 54 \text{ dB}$  daytime noise contour in 2032. Whilst there is no policy requirement to offer noise insulation at these levels of noise exposure, this noise level was chosen in view of the Government consultation document Aviation 2050 and best practice at UK airports. Approximately 3,900 homes are predicted to be within this zone and outside the Inner Zone. Within this zone home owners will be able to apply for funds for acoustic treatments, with the amounts dependent on noise levels, in 3dB bands.

## 4.2. Comments from Interested Parties

4.2.1 In response to criticisms of the SOAEL values adopted, the Applicant highlighted that there are six airport development projects identified since 2014 which adopted  $L_{eq16hr} 63 \text{ dB}$ , as identified in the ES Chapter 14 at section 14.2.

4.2.2 The Applicant then in response to criticism of the use of Leq due to it being an average value (because it is noise peaks which are the key nuisance to

residents), explained that the Leq is not a normal average, it is a logarithmic average, which means the individual noise peaks from aircraft are highly weighted in the logarithmic averaging process. It is because of this that Leq levels give the best correlation to annoyance. The ES Chapter 14 goes to some lengths to use other metrics in addition to Leq, 16 hr day and leq 8 hour night to illustrate the changes in noise expected from the Project, including N65 Day, N60 Night, Lmax, Lden, Lnight, and overflights. These metrics were discussed with the Noise Envelope Group (see ES - Appendix 14.9.9 [APP-179]) when discussing what metrics would be best for the noise envelope.

- 4.2.3 The Applicant sought to respond to comments about noise insulation, but the ExA preferred to move to the next agenda item.
- 4.2.4 The ExA enquired as to the night time SOAEL, and how it was arrived at.
- 4.2.5 The Applicant explained that the SOAEL value for night-time is taken for the interim target for the WHO Night Noise Guidelines 2009, which suggest Leq 8 hr night 55 dB, which is described in those guidelines as the level above which adverse effects occur; i.e. the level where, frequently, a sizable proportion of population is highly annoyed and sleep disturbed. The night-time value is also consistent with that used on the other recent airport development projects referred to earlier.
- 4.2.6 The ExA then referred the Applicant to figure 4 in the CAP 2161 SoNA document published in 2021 suggesting that the 55dB level chosen was not off the graph but over to the right of the levels reported, ie high. The Applicant responded by noting that the scale covered the range 39 to 60dB and at 55dB (the level used for SOAEL) this piece of evidence suggested that about 15% of the population were high sleep disturbed.
- 4.2.7 The ExA enquired as to why the final column of the PPG noise guidance table about unacceptable adverse effects was omitted when entered into the Applicant's application documents?
- 4.2.8 The Applicant noted this is because the NPSE makes no reference to a UAEL, nor does DfT policy on aviation noise. Table 14.3.1 of the ES - Chapter 14 notes this and refers to the values used in the Heathrow PEIR for unacceptable adverse effects levels, noting that at Gatwick there are no populations above this level.

## 5 Agenda Item 7: Assessment, control, mitigation, and compensation

- 5.1.1 The ExA enquired as to what thresholds have been set for non-residential receptors
- 5.1.2 The Applicant explained that its methodology for non-residential receptors is summarised in paragraph ES Chapter 14 paragraph 14.4.76. Noise assessment criteria for these types of buildings can be drawn from various guidelines and are in all cases at or above Leq 16 hour 50 dB, i.e. within 1dB of the daytime residential LOAEL. For non-residential receptors noise change criteria for significant effects are in all cases 3dB or more. In brief, the approach to assessing non-residential receptors was to scope the potential impacts using the LOAEL assessment criteria for residential receptors, and to consider each non-residential receptor above this in terms of the change expected, on a case by case basis.
- 5.1.3 The ExA followed up to query whether the Applicant's assessment was limited to only those non-residential receptors which are already above the LOAEL? The Applicant responded that no, this was not the case, as it uses the with development values as a scoping tool. So, any of the noise contours that fall above LOAEL would bring the non-residential receptor into the zone of potentially needing an assessment.
- 5.1.4 With regard to schools specifically, the Applicant used the daytime 50dB figure, as embedded in the 'RANCH study' into the effects of noise on children's learning. Further, at the scoping stage, the change in noise is reported for all schools in the ES Appendix 14.9.2 Air Noise Modelling. The change in noise observed at all schools is small and not significant. The Applicant is therefore confident that schools will not be significantly affected.
- 5.1.5 The ExA and the Applicant continued to discuss the matter of effects on schools, asking if shorter time periods such as 30 minutes should be used to assess possible impacts. The Applicant noted that we should look at specific noise changes at schools in Section 9 of the ES where we see all the Leq 16 hr noise changes at schools are small, and we would not expect changes over shorter time periods to be much larger and so they would not be significant. There is nonetheless a specific Noise Insulation Scheme for schools provided in the Noise Insulation Scheme, ES Appendix 14.9.10.
- 5.1.6 **[Post Hearing Note:** The largest change in Leq 16 hr at any school reported in ES Chapter, at paragraph 14.9.159, is 1.4dB.]

## 5.2. Comments from Interested Parties

- 5.2.1 In response to Councillor Lockwood's (Lingfield Parish Council) concerns for Saint Piers Young Epilepsy School, a residential school and its 24-hour operation, the Applicant noted that this school would be captured by the noise insulation scheme being offered to schools and effects mitigated as appropriate, and that they would be happy to look into this further.
- 5.2.2 **[Post hearing note:** The Applicant will be providing further detail at Deadline 2, in response to the ExA's Actions Arising from ISH5 (Action Point 3).]
- 5.2.3 The ExA sought to confirm that the overall noise effect resulting from different noise sources was assessed qualitatively because there is no reliable way to assess it quantitatively, and why the metrics and thresholds for both air and ground noise were the same. Of particular concern was whether, if premises were adversely affected by both sources, could they be added together to amount to a significant effect?
- 5.2.4 The Applicant responded affirmatively to the first part of the question. As discussed earlier it is because the characters of air noise and ground noise are so different that they are assessed differently although the numerical values of the LOAEL are the same.
- 5.2.5 In response to the compounding of effects, the Applicant was confident that it had taken this into account. The qualitative assessment provided in ES Chapter 14 Section 14.11 takes account of 4 main factors but just the fourth was explained; whether one effect dominates or whether effects might be additive? All but one of the approximately 80 properties identified as significantly affected by air noise, in Ifield Road, Russ Hill, Balcombe Road and Peeks Brook Lane, are not significantly affected by ground noise. The exception is Westfield Place, a residential property on Lowfield Heath Road south of Charlwood that will be a priority for noise insulation. This is because air noise is at its highest to the East and West of the airport under the flight paths, and its effects can be several km from the airport, whereas ground noise affects properties close to the airport boundary around the airport, and there are no noise sensitive properties located in the area overflowed very close to the airport boundary to the east and west ends of the airport primarily for safety reasons. So, air noise effects dominate in some areas, and ground noise effects dominate in others, making additive effects unlikely. The Noise Insulation Scheme however, addressed the possibility of additive effects, by providing that where it is considered this overlap may have occurred, the Applicant will measure the ground noise, and assess the total levels for consideration under the insulation scheme.

### 5.3. Comments from Interested Parties

5.3.1 In response to Marathon Asset Management MCAP Global Finance (UK) LLP's ('**Marathon Asset Management**') comments on an assessment of impact on the Holiday Inn, the Applicant confirmed that it was continuing to work constructively to come to a resolution with the Party.

5.3.2 The ExA sought comments from the Applicant specifically with regard to paragraph 5.58 of the ANPS 2018: 'noise mitigation measures should ensure the impact of aircraft noise is limited and where possible, reduced compared to the 2013 baseline assessed by the Airports Commission.'

5.3.3 The Applicant responded that the ANPS was primarily intended to have effect in relation to the preferred scheme at Heathrow. It doesn't set out the process by which the baseline needs to be considered for the purpose of any other airport projects that comes forward.

### 5.4. Comments from Interested Parties

5.4.1 In response to comments from the JLAs, the Applicant proposed that the matters of detail were best dealt with in response to written representations and in the LIR process.

5.4.2 The Applicant further responded on a number of matters:

(a) In response to CAGNE's concerns about inconsistencies in the existing noise insulation scheme, the Applicant is continuing to consult with local authorities on this scheme, and will be issuing an updated annex spelling out the details of how the scheme will be implemented. This has been captured in the ExA's Actions Points arising from ISH5, and will be provided by the Applicant at Deadline 2.

(b) In response to Marathon Asset Management's comments regarding the post-Covid traffic flows, there is an ES traffic sensitivity analysis environmental report being prepared, and the road traffic noise changes post-Covid will be included in that report.

5.4.3 In response to Ruser Parish Council's concerns with the increasing frequency of night flights, the night flights are controlled by the DFT because of the designated status of Gatwick Airport. The number of night flights increasing in the noise assessment, which is the summer season, 92-day average in the very worst year is an increase of 12 night flights across the eight hour night from 125 to 137 (see ES Chapter 14 Table 14.7.1). That approximates to a 10% increase. To contrast against some other projects where much bigger increases in night flights are



possible because of the lack of regulation by the DfT: Luton is proposed to see the night flight increases of more than 40%.