ANNEX 1

APPLICANT'S RESPONSE ON REQUIREMENT 15 (AIR NOISE LIMITS)

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1. **THE SOS' REQUEST**

1.1 The SoS' consultation letter of 9 December 2024 ("**SoS Consultation 1**") sought comments on the ExA's revised form of requirement 15 (air noise limits).

1.2 In its response dated 23 December 2024 (the "**Dec Response**") the Applicant accepted the modified and simplified format of the requirement but explained why the enclosed area limit for the 51 dB LAeq 16 h contour for the first to fifth years of dual runway operations should be 135 km^2 instead of the ExA's proposed 125 km^2. MTL 181 indicates that the SoS is currently minded to favour the ExA's value, but the SoS has invited comments from the Applicant.

1.3 In the Dec Response the Applicant also sought a provision enabling the SoS to review the air noise contour enclosed area limits in requirement 15 upon the Applicant's request, in circumstances where the air noise environment at the airport is affected by circumstances outside the Applicant's control (for example, implementation of airspace change). MTL 181 indicates that the SoS is minded to include such provision, though in MTL 180 the SoS has requested clarity from the Applicant as to how the review process would work, including how relevant parties would be involved.

2. **THE APPLICANT'S POSITION**

Air noise contour enclosed area

2.1 Now with sight of the ExAR which sets out the ExA's justification for their recommended air noise contour enclosed area limits, the Applicant considers that the ExA has proceeded on the basis of:

2.1.1 flawed conclusions with regard to fleet transition (including during COVID);

2.1.2 a misunderstanding (and therefore exaggeration) of the degree to which 'next generation' aircraft are quieter than current generation aircraft; and

2.1.3 the incorrect assumption that potentially having fewer total annual aircraft movements (on the ExA's position) would necessarily assist the Applicant in achieving a lower noise limit.

2.2 **Sections 3(A)**, **(B)** and **(C)** of this Annex 1 describe in further detail these three errors in the ExA's analysis and how they follow through to the ExA's conclusions and consequent recommendation to the SoS.

2.3 These misunderstandings have in part led the ExA to erroneously rely upon the out-of-date Central Case ("**CC**") for fleet transition over the Applicant's Updated Central Case ("**UCC**"), which has led them to inappropriately propose the 125 km^2 air noise contour enclosed area under requirement 15 for the first to fifth years after the commencement of dual runway operations ("**CDRO**").

2.4 The Applicant's case remains that the UCC fleet transition is most likely, which forecasts a 51 dB LAeq 16 h contour area of c. 135 km^2 in 2032 (See Section 3.2 of **ES Addendum - Updated Central Case Aircraft Fleet Report** [REP4-004] and **ES Appendix 14.9.7 The Noise Envelope** [REP10-011]). As set out in those documents, the Applicant concluded that there were no changes to the conclusions reached in the assessment of likely significant effects as a result of adopting the UCC.

2.5 The Applicant, therefore, believes that the ExA's proposed air noise contour enclosed area limit of 125 km^2 (based on the CC) will restrict the airport's ability to release slots in the first five years after opening the northern runway, constraining growth. Such a constraint is not

necessary given the unchanged conclusions on likely significant effects from adopting the UCC. The Applicant requests that the SoS consider whether the imposition of such a restriction is justified, taking into account the additional explanation provided by the Applicant in this Annex 1 and in light of the Government's growth focus.

2.6 If the SoS considers it necessary and reasonable, supported by evidence, to impose the 125 km^2 enclosed area limit, the Applicant will be able to operate the airport, but it must be acknowledged that remaining within this limit may require significant operating restrictions to be put in place. The Applicant would expect it to be fully reasoned why the SoS continued to endorse the ExA's position notwithstanding the points identified by the Applicant in this Annex 1.

Amendment mechanism

2.7 Notwithstanding which enclosed area limit is adopted for the requirement (though the need will inevitably be greater if 125 km^2 is adopted), the Applicant considers it reasonable and justified to include a mechanism that allows the Applicant to request from the SoS that the enclosed area limits in requirement 15 be amended to respond to extraordinary circumstances outside the Applicant's control.

2.8 In response to the SoS' request in MTL 180, the Applicant has considered the process which might apply to any such request. The mechanism proposed is set out in new sub-paragraph (4) of the Applicant's proposed draft requirement, which is set out as **Appendix 1** to Annex 1. This review mechanism is simple and self-explanatory and will ensure that interested persons are notified of a request to amend the air noise limits and are given an opportunity to comment.

Carve-out for emergency circumstances

2.9 The Applicant also proposes that wording is included in this DCO in the same terms as that included in the London Luton Airport Expansion Development Consent Order 2025 (the "**Luton DCO**") that ensures that the undertaker is not taken to breach the DCO if it exceeds the air noise limits due to action taken in the most urgent emergency circumstances (i.e. where there was reasonably cause for apprehending injury to persons or serious damage to property). This is new sub-paragraph (5) of the Applicant's proposed draft requirement. This addresses a distinct concern to the amendment mechanism detailed above.

3. CONCERNS WITH THE EXA'S JUSTIFICATION

(A) Flawed conclusions with regard to fleet transition (including during COVID)

3.1 In MTL 168 the SoS notes:

"The Applicant stated that their UCC showed how aircraft had transitioned over the years to next generation aircraft for the whole operating year [ER 6.4.116] and the ExA compared this to the average summer day using reports from the Environment Research Consultancy Department of the CAA for 2019 until 2022 [ER 6.4.117]. This showed the transition rate for aircraft that fly in the summer has continued to trend upwards, including during the Covid years, and has followed a different trend to that set out by the Applicant for the same years. The ExA considered that this tends to favour the position of the LPAs that the CC should be used as the basis for the noise limits that would only apply to the peak summer months [ER 6.4.118]."

3.2 ExAR 6.4.116 to 6.4.118 note:

"The Applicant explained how it created its UCC forecast [REP4-004]. From our inspection of Diagram 2.3 of that document we note that it shows the percentage of aircraft that had transitioned to next generation for the whole operating year, and we have presented this in Table 6.4.

We have compared this with the same analysis for the average summer day, as it is that which would determine the noise exposure compared with any daytime limit set. The information can be found in the ERCD reports for 2019 until 2022. Since 2016 these noise

contour reports have been produced by the ERCD commissioned directly by GAL. This comparison is shown in Table 6.4.

Table 6.4: Noise Contour Reports - 2019 to 2022

% LGW aircraft transitioned to next generation	2019	2020	2021	2022
Summer day ERCD reports	62	63	65	69
Whole year [REP4-004]	13	21	26	20

This shows that the transition rate for aircraft that fly in the summer has continued to trend upwards including the Covid years and has followed a different trend to that reported by the Applicant [REP4-004] for the whole of the same years. We consider that this tends to favour the position of the LePAs that the CC should be used as the basis of any noise limits that would only apply to the peak summer months as discussed in the assessment section."

3.3 The principle of the ExA's comparison, and the conclusions which it reached from its own analysis, were not put to the Applicant during the examination, nor do they appear to have been produced from materials that were before the examination. The Applicant considers that it should have been provided an opportunity to comment on the ExA's approach before it completed the examination.

3.4 The ExA's analysis, cited by the SoS, is based on a comparison between two sets of data that are in fact measuring different types of aircraft. The Applicant's data in [REP4-004] represents the percentage of 'next generation' aircraft in the fleet mix whereas the ERCD reports refer to the number of aircraft that met the latest ICAO Chapter 14 noise standard. These are not directly comparable metrics because they measure different aircraft types and there are many current generation aircraft that meet the ICAO Chapter 14 noise standard, including for example some of the most common aircraft type at London Gatwick, variants of the Airbus A320, that are not termed ‘next generation’ aircraft.

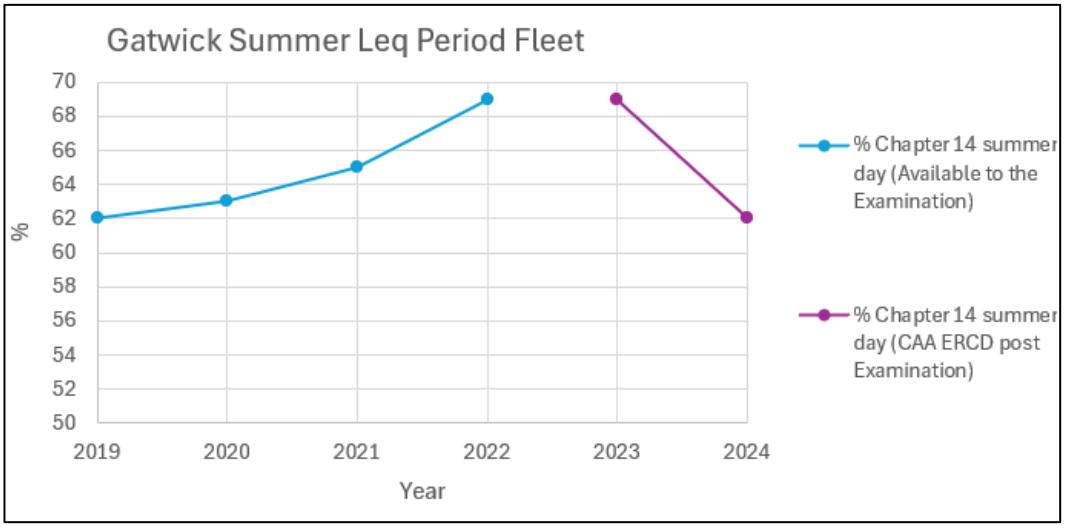
3.5 The ExA relies upon its analysis from the CAA ERCD reports to criticise the Applicant's conclusion on fleet transition and ultimately favour the LePAs' position that the CC should be used in setting air noise limits instead of the UCC. However, the Applicant's analysis was and remains robust and is supported by subsequent CAA ERCD data released since the close of the examination (detailed further below). The ExA's selective use of data that it independently sought has led it to a flawed conclusion.

3.6 Since the close of the examination, the CAA ERCD has released summer 2023 actual contours (ERCD Report 2402[1]) and is currently finalising the summer 2024 contours[2]. The Applicant has prepared the following graph (Figure 1) showing the summer season daytime percentage of Chapter 14 aircraft operating at London Gatwick from the 2023 and 2024 data provided by the CAA ERCD (purple data points) along with the figures for 2019 to 2022 quoted by the ExA (blue data points) from the earlier data.

[1] Available here - [redacted]

[2] The figure for summer 2024 has been provided by ERCD to the Applicant in advance of the publication of ERCD Report 2502, which is expected in May 2025.

Figure 1

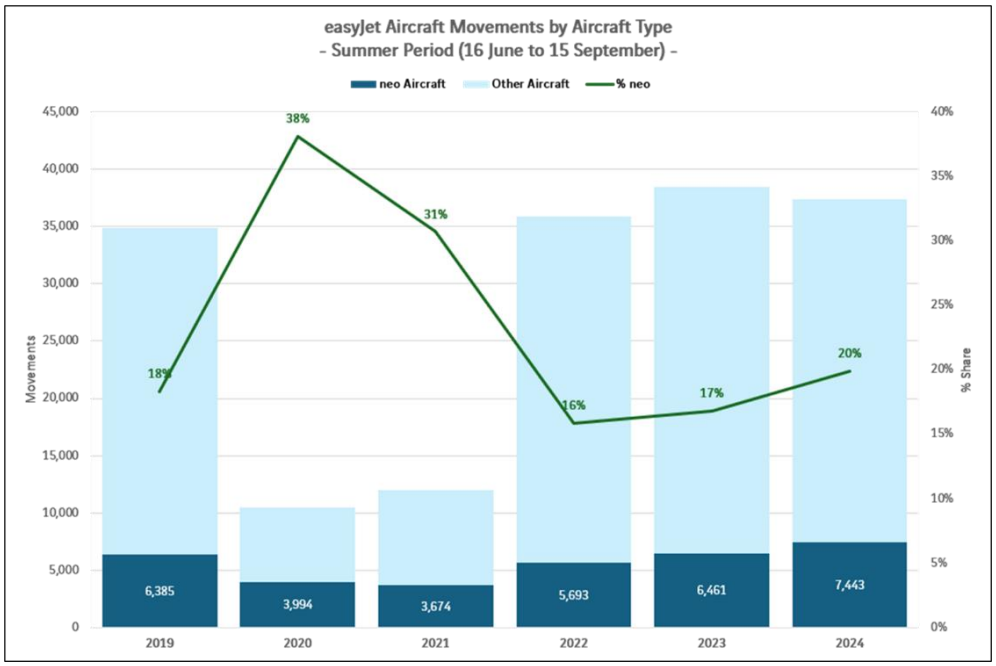


3.7 Clearly the upward trend noted by the ExA based on the data for 2019 to 2022 available to the ExA during the examination (though not presented to the examination or the Applicant) has since reversed, so that according to the latest analysis from the CAA ERCD the fleet in summer 2024 had the same percentage of Chapter 14 aircraft as in 2019.

3.8 During COVID the aircraft that airlines took out of operation and grounded tended to be the older, noisier and less efficient types of aircraft, so the fleet operating tended to show quieter aircraft than pre-COVID. The fleet has changed for a number of reasons in the subsequent years. In summer 2024, air transport movements ("**ATMs**") were back close to 2019 levels. Relatively older, noisier aircraft have returned to service, and the percentage of Chapter 14 aircraft has decreased back to 62% (on the CAA ERCD's provisional data), the same as in 2019. This is clear evidence from the CAA ERCD's analysis of the actual fleet flown each summer season that the overall fleet at Gatwick in 2024 has not transitioned to quieter types compared to the 2019 baseline.

3.9 Further evidence of how this has happened in practice can be seen by an analysis of easyJet's fleet in operation at Gatwick over this period, as follows:

Figure 2



3.10 Figure 2 clearly shows how, in summer 2020 when the pandemic had struck, easyJet removed its older current generation aircraft (A319, A320) from operation and kept a much greater proportion of its next generation fleet (A320 NEO and A321 NEO) in operation. In summer 2020 38% of its fleet was NEO. As traffic increased in the following years, current generation aircraft were returned to service and NEO percentage gradually reduced to 20%, which is just 2% higher than in 2019. EasyJet accounts for approximately 50% of Gatwick traffic, so this further explains the apparent rapid fleet transition observed by the ExA from 2019 to 2022 that was reversed from 2022 to 2024.

3.11 The ExA's conclusion that *"the transition rate for aircraft that fly in the summer has continued to trend upwards including the Covid years and has followed a different trend to that reported by the Applicant"* is therefore inaccurate, and their resulting view that this data *"tends to favour the position of the LePAs that the CC should be used as the basis of any noise limits"* cannot be justified through any proper analysis. Indeed, the evidence fully supports the Applicant's position that COVID caused a delay in fleet transition that invalidated the CC and makes the UCC the correct basis for air noise limits. This supports the Applicant's proposed air noise limits.

(B) Misunderstanding (and therefore exaggeration) of the degree to which 'next generation' aircraft will be quieter

3.12 In ExAR 6.4.106, the ExA notes:

> *"We could see that the APF summarised the effect of technological improvements in reducing in noise levels under test measurement conditions where it explains under "Key Facts" that ICAO required new types of smaller aircraft to be about 7 dB quieter in 2020."*

3.13 The Applicant explained during the examination that the ExA's statement that new types of aircraft are about 7 dB quieter than older types is not correct (see paragraphs 8.1.6 to 8.1.8 of **The Applicant's Response to Actions ISH9 – Mitigation** [REP8-111]). In that document, the Applicant explained that this 7 dB is the total across the ICAO 3 noise certification points, and that the difference measured or heard at any single location is about one third of this (i.e. 2.3 dB not 7 dB).

3.14 In ExAR 6.4.107, the ExA continued:

> *"We considered that this was consistent with the Applicant's Supporting Noise Technical Notes to Statements of Common Ground Version 2 [REP6-065] Appendix E which described trends in engine noise in relation to engine ground running and concluded with "the majority being around 7-9dB quieter."*

3.15 Paragraph 8.1.14 of **The Applicant's Response to Actions ISH9 – Mitigation** [REP8-111] explained that the 7-9 dB difference quoted for ground noise relates to the difference between large and small aircraft, not old and new ones (and engine noise **rather than total noise).**

3.16 These significant misunderstandings together appear to have led the ExA to wrongly believe that new aircraft are 7-9 dB quieter than older ones, rather than 2 to 3 dB quieter, giving rise to their view that greater noise reductions and the CC are more likely than the UCC fleet noise levels. This has contributed to the ExA setting the air noise limits in requirement 15 based on the CC.

(C) Assumption that fewer annual ATMs would assist with achieving a lower noise limit

3.17 In addition to their erroneous reliance on fleet change data noted above, the ExA also supported their proposed imposition of a 125 km^2 enclosed area limit with their conclusions on the Applicant's forecasts, as noted in MTL 171.

3.18 The ExA concluded that the Applicant's forecast rate of growth was probably overstated and considered that the consequent reduction in annual ATMs would assist the Applicant with achieving the lower air noise limit of 125 km^2 (ExAR 6.4.124). However, for this conclusion to be reliable, the alleged reduction in ATMs would need to be broadly

consistent throughout the year in order to show a decrease in movements within the 92-day summer period within which noise effects are measured.

3.19 On the ExA's position, this assumption is likely to be unreliable due to the ExA's other assumption that the Applicant's forecast of peak spreading was optimistic (ExAR 4.3.92), which should logically lead the ExA to the conclusion that any potential reduction in annual ATMs would be more likely to occur in off-peak months, meaning that the 92-day noise measurement period (which accords with the peak summer season) would be less likely to see a reduction in ATMs.

3.20 Hence the ExA's conclusion that having fewer annual ATMs therefore necessarily makes a tighter noise limit easier to achieve is flawed and cannot be relied on to support their proposed 125 km^2 limit.

Conclusion

3.21 For the above reasons, the Applicant challenges the ExA's justification for adopting the CC instead of the UCC in setting the enclosed area limits for requirement 15 (air noise limits). The Applicant's case remains that the UCC fleet transition is most likely and that imposing an air noise limit for the first to fifth years post-CDRO based on the CC will restrict the airport's ability to release slots in these years, in a manner that is particularly unjustified given that the UCC was concluded not to have additional likely significant effect to those assessed under the CC. The Applicant therefore requests that the SoS considers whether the ExA's value of 125 km^2 for the first to fifth years post-CDRO is justified and only imposes this if satisfied that it is necessary and reasonable, supported by evidence. To the extent that the SoS reaches this conclusion and imposes the 125 km^2 enclosed area limit, the airport will be able to operate, albeit with a potential constraint on the ability to grow.

4. APPLICANT'S PROPOSED REQUIREMENT 15

4.1 The Applicant's proposed revised requirement 15 is set out in **Appendix 1** to Annex 1, with tracked changes shown against the ExA's recommended DCO. The proposed new drafting is explained above in this Annex 1.

4.2 In addition to the changes to requirement 15, the Applicant considers that it would be beneficial for the interpretation of the new form of requirements 15 and 18 (both relating to noise) to be supplemented by the following explanatory paragraph in paragraph 1 (interpretation) of Schedule 2 to the DCO, likely as a new sub-paragraph (4):

"References in this Schedule to air noise contours mean standard mode air noise contours, being, for daytime LAeq 16 h noise contours, contours based on the long-term east/west runway modal split calculated as the last 20-year rolling average, and for night-time LAeq 8 h noise contours, contours based on the long-term east/west runway modal split calculated as the last 10-year rolling average."

4.3 The Applicant considers this a useful point of clarification given the multiple references to air noise contours in Schedule 2. The difference in time period for the contours for daytime and night-time is due to the availability of data – the Applicant has not been producing night-time contours for 20 years.

APPENDIX 1 TO ANNEX 1

APPLICANT'S PROPOSED REQUIREMENT 15

Air noise limits

15.—(1) The undertaker shall not operate the airport for dual runway operations unless the air noise contour enclosed areas set out in Table 1 are complied with.

Table 1

Air noise contour	Enclosed area from the first to the fifth year of dual runway operations	Enclosed area from the sixth year of dual runway operations
51 dB LAeq 16 h	135~~125~~ km^2	125 km^2
45 dB LAeq 8 h	146 km^2	135 km^2

(2) Air noise contour reports shall be published annually by the undertaker ~~operator~~ to demonstrate compliance with this requirement, as soon as is reasonably practicable following the first year and subsequent years of dual runway operations. The air noise contour enclosed areas set out in Table 1 shall be calculated using the Civil Aviation Authority's Environmental Research and Consultancy Department (ERCD) Aircraft Noise Contour model, version 2.4 or later.

(3) The undertaker may submit a detailed written request to the Secretary of State to amend the air noise contour enclosed areas in Table 1 of this requirement in relation to any extraordinary review circumstances and, where approved by the Secretary of State, the air noise contour enclosed areas in Table 1 shall be read as amended in accordance with the decision of the Secretary of State.

(4) A request to the Secretary of State under sub-paragraph (3) shall be made in accordance with the following process:

(a) The undertaker shall submit its detailed written request to the Secretary of State and the Secretary of State shall provide the undertaker with an email address and postal address to which comments may be provided by interested parties on the request and specify a time period (that shall commence on the undertaker's notification under sub-paragraph (b)) within which such comments may be provided.

(b) The undertaker shall notify the persons listed in section 42(1) (duty to consult) of the 2008 Act and shall state that comments may be provided to the email address or postal address provided by the Secretary of State within the time period specified by the Secretary of State.

(c) After the conclusion of the time period for comments, the Secretary of State shall make any such further arrangements as are necessary and proportionate for it to make a decision and shall then decide whether to accept or refuse the request. This decision shall be published on a publicly accessible website and notified to the undertaker.

(d) The Secretary of State may agree in writing with the undertaker any amendment to the process set out in this sub-paragraph (4).

(5) Where the airport is operated for dual runway operations in excess of the air noise contour enclosed areas in Table 1, it is not a breach of the terms of this Order for the purposes of Part 8 of the 2008 Act if the exceedance is due to action taken in emergency circumstances in which there was reasonably cause for apprehending injury to persons or serious damage to property.

(6) In this requirement, "extraordinary review circumstances" means circumstances outside the control of the undertaker which affect the noise environment at or around the airport, including but not limited to implementation of an airspace change.