

November 2023

London Luton Airport Expansion

Planning Inspectorate Scheme Ref: TR020001

Volume 8 Additional Submissions (Examination)

**8.72 Applicant's response to Written Questions - Green
Controlled Growth (GCG)**

Infrastructure Planning (Examination Procedure) Rules 2010

Application Document Ref: TR020001/APP/8.72

The Planning Act 2008

The Infrastructure Planning (Examination Procedure) Rules 2010

**London Luton Airport Expansion Development Consent
Order 202x**

**8.72 APPLICANT'S RESPONSE TO WRITTEN QUESTIONS – GREEN
CONTROLLED GROWTH (GCG)**

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| Deadline: | Deadline 4 |
| Planning Inspectorate Scheme Reference: | TR020001 |
| Document Reference: | TR020001/APP/8.72 |
| Author: | Luton Rising |

| Version | Date | Status of Version |
|----------------|---------------|------------------------------------|
| Issue 1 | November 2023 | Additional Submission - Deadline 4 |
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1 RESPONSE TO EXAMINING AUTHORITY WRITTEN QUESTIONS (GREEN CONTROLLED GROWTH)

Table 1.1: Responses to the Examining Authority's Written Questions (Green Controlled Growth)

| PINS ID | Question / Response |
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| GCG.1.1 | <p>Question:</p> <p>GCG – ESG/ GCG process Given the importance of the GCG framework [REP3-017] and the ESG for the control of future noise, explain why the ESG should not be set up from, or even before, the point of serving notice under Article 45 of the DCO submitted at D3 [REP3-003].</p> <p>Response: The Applicant does not believe it is necessary for the ESG to be established at the point at which notice under Article 44(1) is served as the processes undertaken by the ESG are not triggered until submission of the first Monitoring Report. In addition, establishment of the ESG requires actions to be undertaken by third parties which the Applicant does not have direct control over. As set out in the Applicant's Response to Issue Specific Hearing 1 Actions 20, 21, 24 and 26 and Issue Specific Hearing 2 Action 28: Slot Management [TR020001/APP/8.86]. Notwithstanding this, the Applicant is considering changes to the Draft Development Consent Order [REP3-003] to be made at Deadline 5 that would require the ESG to be established as soon as is reasonably practicable.</p> <p>In respect of the processes undertaken by the ESG, Section 2.4 of the Green Controlled Growth Explanatory Note [REP3-015] sets out the proposals for independent scrutiny and review of the GCG process, including the role of the ESG. Paragraph 2.4.2 sets out the powers of the ESG, enshrined in the Terms of Reference included within the Green Controlled Growth Framework Appendix A Draft ESG REP3-019. These are:</p> <ul style="list-style-type: none"> a. Providing commentary on periodic Monitoring Reports produced by the airport operator (see Section 2.3) following reviews by the relevant Technical Panels; b. Approving or refusing Level 2 Plans or Mitigation Plans put forward as required by the airport operator if any GCG environmental effect has exceeded a Level 2 Threshold or Limit respectively (see Section 2.2); c. Where the airport operator can demonstrate that this is the case, certifying that an exceedance of a Level 2 Threshold or Limit is due to circumstances beyond the operator's control; d. Forum for consideration of statutory enforcement representations; e. Mutually agreeing to modifications to the Terms of Reference included at Appendices A and B and Monitoring Plans included at Appendices C to F of the Green Controlled Growth Framework [REP3-017] and; f. Approving or refusing applications by the airport operator to modify timescales within the GCG process, or Level 1 Thresholds, Level 2 Thresholds or Limits, as allowed for under Paragraph 25 of Schedule 2 to the Draft Development Consent Order [REP3-003]. <p>The ESG Terms of Reference set out in more detail how the ESG would exercise these powers (Section A4, 'Operating Powers'). Crucially, all of the routine procedures that the ESG is required to undertake are triggered by the submission of a Monitoring Report by the airport operator. Where the ESG is required to undertake other more ad hoc procedures, for example taking action in relation to a potential breach of the DCO or in response to a periodic review of GCG by the airport operator, these could not be triggered until after submission of the first Monitoring Report. In this context, the requirement for the ESG to be established a minimum of 56 days ahead of the planned submission of the first Monitoring Report by the airport operator is appropriate. Were the ESG to be established on or before the point which notice is served under Article 44(1) of the draft DCO, it would not be required to undertake any actions until the point that the first Monitoring Report is submitted.</p> |
| GCG.1.2 | <p>Question:</p> <p>GCG – Fixed noise monitoring [REP3-023, Appendix C, paragraphs C4.2.2 and C4.2.3] state that as the airport expands, the airport operator will review and, if necessary, improve the noise monitoring stations in line with 'ISO 20906:2009 - Acoustics — Unattended monitoring of aircraft sound in the vicinity of airports' and will consult/ agree on locations for additional</p> |

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| | <p>permanent noise monitors on departure routes. Confirm what the trigger for reviewing existing noise monitoring would be, how it would be determined whether new monitoring was 'necessary' and the provisional programme for agreeing locations for additional permanent noise monitors.</p> <p>Response: The airport operator's current noise monitoring terminals provide sufficient information to be able to accurately calibrate the noise modelling and comply with the modelling requirements of the Civil Aviation Authority's CAP2091 (Ref 1). Triggers for reviewing existing noise monitoring terminals are therefore likely to be, but would not be limited to:</p> <ul style="list-style-type: none"> • Updates to the CAA CAP2091 guidance, or publication of further noise modelling or noise monitoring guidance from the CAA • If the CAP2091 noise modelling category for London Luton Airport were to change to a category that requires additional noise monitors to be installed • An implemented airspace change which moves flightpaths such that the existing noise monitoring terminals were no longer relevant • Ongoing review of the noise monitoring terminals as part of the Noise and Track Subcommittee • Ongoing review of the noise monitoring terminals as part of any update to Noise Action Plans <p>The principle criteria for the requirement for new noise monitoring terminals as part of such a review would be if they were required to meet the minimum standards of noise monitoring terminals with respect to validation of aircraft noise modelling as per CAP2091.</p> <p>With regards to the provisional programmes, should any of the reviews described above result in the identification of additional noise monitoring terminals it is worth noting the following:</p> <ul style="list-style-type: none"> • flight paths generally overfly the least populated areas where possible, therefore the best places for noise monitors are usually in rural locations and fields; • landowner consent must be sought for access and permission to install noise monitors on private land and contract negotiations can be time consuming; • fixed noise monitors require a continuous power source, which usually requires digging up some of the land to install the cabling, the timing of which can be affected by crop harvesting given monitors are frequently installed in fields; and • installation also requires concreting the equipment into the ground (to ensure it is fixed and theft resistant). <p>For the additional noise monitoring terminals that are already committed to in paragraph C4.2.3 of the Green Controlled Growth Framework Appendix C Aircraft Noise Monitoring Plan [REP3-023] it would not be proportionate to seek to install these before the conclusion of the current ongoing airspace change proposal. Given the process for securing a new monitoring terminal location described above, any new terminals may only be in place for a very short amount of time (between the DCO being implemented, and the process described above being completed) before needing to be moved again once the airspace change process is concluded. It is therefore proposed that the location of these new monitoring terminals would be discussed with the Noise and Track Subcommittee and agreed with the GCG Noise Technical Panel in line with the program for the airspace change and that all reasonably practicable efforts will be made (subject to achieving landowner consent) to install these new monitors within 18 months of the conclusion of the airspace change process.</p> <p>Updates to the Green Controlled Growth Framework Appendix C Aircraft Noise Monitoring Plan [REP3-023] will be made at Deadline 5 to clarify these points.</p> |
| GCG.1.3 | <p>Question:</p> <p>GCG – controls on early/ late flights</p> <p>The ExA welcomes the Applicant's proposal in Noise Envelope – improvements and worked example [REP2-032], that early/late running flights would not be dispensed from the noise contour calculations. Can the Applicant explain what measures would be taken to avoid or minimise late running flights?</p> <p>Response: Clearly, by their nature, late running flights are difficult to control as the external factors that cause these can be varied, such as air traffic control delays, aircraft having technical issues, weather and other operational factors. It needs to be borne in mind that failing to accommodate such delayed movements would lead to substantial inconvenience to passengers, e.g. through aircraft having to divert to an alternative airport, or major operational disruption if an aircraft was unable to return to its operating base at the airport and so was unable to undertake the following day's flights.</p> |

| PINS ID | Question / Response |
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| | <p>The use of a 5% allowance on top of the expected scheduled movements in the night period, as indicated in Para 6.6.61 of the Need Case Revision 1 [AS-125] is based on historic data from the airport when operating normal patterns of traffic (i.e. before COVID disruption). This data shows late running flights made up between 1% and 5% of movements in the night periods and therefore the choice of 5% was selected to provide for the likely worst-case scenario given that most years operate below this. If a lower (than 5%) delay factor had been included, this would have allowed the Applicant to increase the number of scheduled movements in the night periods and the night noise contour assessments would have given a similar answer. However, as there is less ability to control late running flights the use of a lower delay factor was not deemed sensible by the Applicant. In light of this, there are no measures that can feasibly be taken, but protection is added by the inclusion of the aforementioned 5% as part of the overall process.</p> |
| GCG.1.4 | <p>Question:</p> <p>GCG - Appendix C – Annex C1 DCO noise model assumptions Confirm whether the assumptions/parameters expressed in points a-j of Annex C1 [REP3-023] are acceptable and a reasonable basis for future noise modelling.</p> <p>Response: The Applicant would like to clarify that points a-j of Annex C1 of the Green Controlled Growth Framework Appendix C Aircraft Noise Monitoring Plan [REP3-023] are not the only requirements for future noise modelling. Paragraph C4.2.1 also requires the airport operator to validate the noise model in line with the Civil Aviation Authority's CAP2091 (Ref 1) which sets the industry standard for aircraft noise modelling.</p> |
| GCG.1.5 | <p>Question:</p> <p>Quota Counts Confirm whether the approach to calculating day and night-time quota counts in Noise Envelope – improvements and worked example [REP2-032] would form an acceptable basis for noise control on exceedance of a Level 1 and Level 2 thresholds.</p> <p>Response: This question is directed toward the Local Authorities and the Applicant would provide comments on their responses if necessary.</p> |
| GCG.1.6 | <p>Question:</p> <p>Noise Action Plan (NAP) Provide a copy of the 2024-2029 NAP for Luton Airport.</p> <p>Response: London Luton Airport's draft Noise Action Plan 2024-2028 has been provided at Appendix A. Please note that this is a draft document that has been submitted to the Department for Environment, Food and Rural Affairs (DEFRA) for approval and is therefore subject to change.</p> |
| GCG.1.7 | <p>Question:</p> <p>Noise Action Plan (NAP) At ISH3 on noise and vibration, the Applicant stated that the operator's quarterly monitoring reports contained a host of information considered relevant to the community that have been developed over time and that there is no expectation that these would change. However, the Applicant also explained that the NAP would be updated to take account of GCG controls replacing any current planning related commitments. Can the Applicant explain whether quarterly reporting would be retained and how the various reporting requirements would be retained if these were not explicitly referenced in the GCG framework or secured by the DCO?</p> <p>Response: The Aircraft Noise Monitoring Plan [REP3-023] was updated at Deadline 3 to secure the ongoing requirement for quarterly monitoring in line with the current consent that was relevant at the time of submission (see Paragraph C7.1.1). The updated reporting requirements in the current consent as a result of the approval of the application to grow to 19mppa (APP/B0230/V/22/3296455) will be considered by the Applicant and updates to the monitoring requirements will be made at Deadline 5 to retain these as considered appropriate.</p> |

| PINS ID | Question / Response | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|---|---|-----------------------|--|------------------------|----|----------|---|-----------------------|--|------------------------|---|------|------|------------|------|------------|---|----------------------|------|------------|------|------------|---|----------------------|------|------------|------|------------|---|----------------------|------|----------------|------|------------|---|----------------------------|-------|------------------|------|----------------|---|---------------------------|-------|------------------|-------|------------------|---|--------------------|-------|------------------|------|----------------|---|------------------|------|----------------|------|----------------|---|-----------------|------|----------------|------|----------------|----|---------------------|-------|------------------|-------|------------------|----|-----------------|-------|----------------|------|----------------|----|-----------------|------|----------------|------|----------------|
| GCG.1.8 | <p>Question:</p> <p>GCG framework [REP3-017] – In scope locations Explain why Crawley Green Road 2 monitoring location has been removed from being in scope in this document revision.</p> <p>Response: It is assumed that the reference to 'Crawley Green Road 2' by the Examining Authority (ExA) is an error as this location has always been out of scope, and the request from the ExA is for the Applicant to explain why the 'Crawley Green Road 3' location has moved from being in scope to out of scope for NO₂ in Phase 1. For clarity, the previous and corrected results for Phase 1 NO₂ in full are shown in the table provided as part of this response.</p> <p>As set out in Paragraph 3.3.9 of the Green Controlled Growth Explanatory Note [REP3-015] the filtering process to determine whether a location is in scope for air quality in the Green Controlled Growth Framework [REP3-017] includes consideration of the <u>total</u> airport impact on air quality in that location (i.e. the air quality impacts not just of the Proposed Development but also of the existing airport). This total contribution is not reported in the Environmental Statement Chapter 7 Air Quality [AS-076], which is concerned with the comparison between the Do Minimum and the Do Something (i.e. the impact of the Proposed Development only).</p> <p>In preparing Environmental Improvement Plan Interim Target for PM2.5 Commentary [REP1-017] total airport contributions to pollutants in the Faster Growth Case were reviewed. As part of this review, it became apparent there was an error in the apportionment of NO₂ to airport sources in Phase 1. The previous and corrected results for Phase 1 NO₂ are shown in the table below.</p> <table border="1" data-bbox="457 936 2398 1915"> <thead> <tr> <th>ID</th> <th>Location</th> <th>Original Airport Contribution (%), relative to AQAL</th> <th>Original Significance</th> <th>Corrected Airport Contribution (%), relative to AQAL</th> <th>Corrected Significance</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>A505</td> <td>1.43</td> <td>Negligible</td> <td>0.97</td> <td>Negligible</td> </tr> <tr> <td>2</td> <td>Crawley Green Road 1</td> <td>4.71</td> <td>Negligible</td> <td>3.69</td> <td>Negligible</td> </tr> <tr> <td>3</td> <td>Crawley Green Road 2</td> <td>5.02</td> <td>Negligible</td> <td>3.97</td> <td>Negligible</td> </tr> <tr> <td>4</td> <td>Crawley Green Road 3</td> <td>5.87</td> <td>Slight adverse</td> <td>4.74</td> <td>Negligible</td> </tr> <tr> <td>5</td> <td>Eaton Green Road 1 (LLA15)</td> <td>11.68</td> <td>Moderate adverse</td> <td>8.74</td> <td>Slight adverse</td> </tr> <tr> <td>6</td> <td>Eaton Green Road 2 (LN25)</td> <td>14.21</td> <td>Moderate adverse</td> <td>11.08</td> <td>Moderate adverse</td> </tr> <tr> <td>7</td> <td>Eaton Green Road 3</td> <td>12.22</td> <td>Moderate adverse</td> <td>9.73</td> <td>Slight adverse</td> </tr> <tr> <td>8</td> <td>Darley Road (L4)</td> <td>7.76</td> <td>Slight adverse</td> <td>6.37</td> <td>Slight adverse</td> </tr> <tr> <td>9</td> <td>Winch Hill (L6)</td> <td>8.20</td> <td>Slight adverse</td> <td>6.72</td> <td>Slight adverse</td> </tr> <tr> <td>10</td> <td>Dane Street (LLA11)</td> <td>15.77</td> <td>Moderate adverse</td> <td>12.63</td> <td>Moderate adverse</td> </tr> <tr> <td>11</td> <td>Somerles Castle</td> <td>10.09</td> <td>Slight adverse</td> <td>8.13</td> <td>Slight adverse</td> </tr> <tr> <td>12</td> <td>New Airport Way</td> <td>8.01</td> <td>Slight adverse</td> <td>6.11</td> <td>Slight adverse</td> </tr> </tbody> </table> | | | | | ID | Location | Original Airport Contribution (%), relative to AQAL | Original Significance | Corrected Airport Contribution (%), relative to AQAL | Corrected Significance | 1 | A505 | 1.43 | Negligible | 0.97 | Negligible | 2 | Crawley Green Road 1 | 4.71 | Negligible | 3.69 | Negligible | 3 | Crawley Green Road 2 | 5.02 | Negligible | 3.97 | Negligible | 4 | Crawley Green Road 3 | 5.87 | Slight adverse | 4.74 | Negligible | 5 | Eaton Green Road 1 (LLA15) | 11.68 | Moderate adverse | 8.74 | Slight adverse | 6 | Eaton Green Road 2 (LN25) | 14.21 | Moderate adverse | 11.08 | Moderate adverse | 7 | Eaton Green Road 3 | 12.22 | Moderate adverse | 9.73 | Slight adverse | 8 | Darley Road (L4) | 7.76 | Slight adverse | 6.37 | Slight adverse | 9 | Winch Hill (L6) | 8.20 | Slight adverse | 6.72 | Slight adverse | 10 | Dane Street (LLA11) | 15.77 | Moderate adverse | 12.63 | Moderate adverse | 11 | Somerles Castle | 10.09 | Slight adverse | 8.13 | Slight adverse | 12 | New Airport Way | 8.01 | Slight adverse | 6.11 | Slight adverse |
| ID | Location | Original Airport Contribution (%), relative to AQAL | Original Significance | Corrected Airport Contribution (%), relative to AQAL | Corrected Significance | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | A505 | 1.43 | Negligible | 0.97 | Negligible | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Crawley Green Road 1 | 4.71 | Negligible | 3.69 | Negligible | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Crawley Green Road 2 | 5.02 | Negligible | 3.97 | Negligible | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Crawley Green Road 3 | 5.87 | Slight adverse | 4.74 | Negligible | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Eaton Green Road 1 (LLA15) | 11.68 | Moderate adverse | 8.74 | Slight adverse | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Eaton Green Road 2 (LN25) | 14.21 | Moderate adverse | 11.08 | Moderate adverse | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Eaton Green Road 3 | 12.22 | Moderate adverse | 9.73 | Slight adverse | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Darley Road (L4) | 7.76 | Slight adverse | 6.37 | Slight adverse | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | Winch Hill (L6) | 8.20 | Slight adverse | 6.72 | Slight adverse | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 12 | New Airport Way | 8.01 | Slight adverse | 6.11 | Slight adverse | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| PINS ID | Question / Response | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | 13 | Hitchin 1 (NH93) | 1.30 | Negligible | 1.06 | Negligible | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 14 | Hitchin 2 (NH2) | 2.37 | Negligible | 1.81 | Negligible | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 15 | M1 | 3.72 | Negligible | 2.59 | Negligible | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <p>Notes: Airport contribution (%) is with respect to the Limit for NO₂ in Phase 1 of 40µg/m³ (and the Limit is set at the Air Quality Objective Level). Results are provided to two decimal places here but are rounded to zero decimal places in the GCG Framework and GCG Explanatory Note. 'Corrected' results reflect those included in the Revision 1 of the Green Controlled Growth Framework [REP3-017], Green Controlled Growth Framework Appendix D Air Quality Monitoring Plan [REP3-025] and Green Controlled Growth Explanatory Note [REP3-015].</p> <p>As set out in Figure 3.7 of the Green Controlled Growth Explanatory Note [REP3-015], where the total airport impact on concentrations of a pollutant at a particular location is negligible, it will be treated as 'out of scope' for the purposes of GCG. The corrections shown in the table above result in the airport contribution to NO₂ in Phase 1 at Location 4 (Crawley Green Road 3) being treated as negligible, and so this location has been moved to 'out of scope'.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GCG.1.9 | <p>Question:</p> <p>GCG framework [REP3-017] – Table 4.3 As currently drafted the limits relating to PM_{2.5} are confusing, as 12 microgram/m³ limits are shown in Phase 2b and in the full operating capacity scenario. Phase 2b spans the period during which the 10 microgram/m³ legal limit would be introduced. Similarly, although the row with PM_{2.5} states '10 microgram/m³ limit (post 2040)' the lower limits are shown in Phase 1 and 2a. Provide an amended table to avoid any confusion between the two thresholds.</p> <p>Response: Please see amended table below. Table 4.3 in the Green Controlled Growth Framework [REP3-017] and Table 3.5 in the Green Controlled Growth Explanatory Note [REP3-015] will be updated at Deadline 5 to reflect this change.</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr style="background-color: #2c3e50; color: white;"> <th style="width: 20%;">Limit</th> <th style="width: 20%;">Up to 2026 (all Phases)</th> <th style="width: 20%;">2027 to 2039 (all Phases)</th> <th style="width: 20%;">2040 onwards (all Phases)</th> </tr> </thead> <tbody> <tr> <td rowspan="5">Annual average PM_{2.5} concentration</td> <td colspan="3">Limit</td> </tr> <tr> <td>20 µg/m³</td> <td>12 µg/m³</td> <td>10 µg/m³</td> </tr> <tr> <td colspan="3">Level 2 Threshold</td> </tr> <tr> <td>19 µg/m³</td> <td>11.4 µg/m³</td> <td>9.5 µg/m³</td> </tr> <tr> <td colspan="3">Level 1 Threshold</td> </tr> <tr> <td></td> <td>15 µg/m³</td> <td>9 µg/m³</td> <td>7.5 µg/m³</td> </tr> <tr> <td rowspan="3">Annual average PM₁₀ concentration</td> <td colspan="3">Limit</td> </tr> <tr> <td>40 µg/m³</td> <td>40 µg/m³</td> <td>40 µg/m³</td> </tr> <tr> <td colspan="3">Level 2 Threshold</td> </tr> <tr> <td></td> <td>38 µg/m³</td> <td>38 µg/m³</td> <td>38 µg/m³</td> </tr> </tbody> </table> | | | | | Limit | Up to 2026 (all Phases) | 2027 to 2039 (all Phases) | 2040 onwards (all Phases) | Annual average PM _{2.5} concentration | Limit | | | 20 µg/m ³ | 12 µg/m ³ | 10 µg/m ³ | Level 2 Threshold | | | 19 µg/m ³ | 11.4 µg/m ³ | 9.5 µg/m ³ | Level 1 Threshold | | | | 15 µg/m ³ | 9 µg/m ³ | 7.5 µg/m ³ | Annual average PM ₁₀ concentration | Limit | | | 40 µg/m ³ | 40 µg/m ³ | 40 µg/m ³ | Level 2 Threshold | | | | 38 µg/m ³ | 38 µg/m ³ | 38 µg/m ³ |
| Limit | Up to 2026 (all Phases) | 2027 to 2039 (all Phases) | 2040 onwards (all Phases) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Annual average PM _{2.5} concentration | Limit | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 20 µg/m ³ | 12 µg/m ³ | 10 µg/m ³ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Level 2 Threshold | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 19 µg/m ³ | 11.4 µg/m ³ | 9.5 µg/m ³ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Level 1 Threshold | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 15 µg/m ³ | 9 µg/m ³ | 7.5 µg/m ³ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Annual average PM ₁₀ concentration | Limit | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 40 µg/m ³ | 40 µg/m ³ | 40 µg/m ³ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Level 2 Threshold | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 38 µg/m ³ | 38 µg/m ³ | 38 µg/m ³ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| | | Level 1 Threshold | |
| | | 30 µg/m ³ | 30 µg/m ³ |
| | Annual average NO ₂ concentration | Limit | |
| | | 40 µg/m ³ | 40 µg/m ³ |
| | | Level 2 Threshold | |
| | | 38 µg/m ³ | 38 µg/m ³ |
| | | Level 1 Threshold | |
| | | 30 µg/m ³ | 30 µg/m ³ |
| GCG.1.10 | <p>Question:</p> <p>GCG framework [REP3-017] and GCG Appendix D – Air Quality Monitoring Plan [REP3-025] – Automatic Number Plate Recognition (ANPR) reference / proportional contribution</p> <p>Reference to use of ANPR has been removed as a means of demonstrating the proportional contribution made by the airport. Instead, Appendix D suggests that an indicative approach to further analysis could include consideration of an emissions inventory and publicly available background/ regional air quality data in order to understand changes in airport-related traffic flows. Expand on your response in the ISH5 post hearing submission as to why ANPR is no longer considered an appropriate basis for monitoring given that it has potential to provide detailed information on traffic flows /origins for cars parking at the airport. In the absence of ANPR data, provide a detailed explanation of the specific data sets and methods that could be used to determine the airport's proportional contribution.</p> <p>Response: The Applicant wishes to clarify the position stated with regards to ANPR, further to the Applicant's Post Hearing Submission - Issue Specific Hearing 5 (ISH5) [REP3-052]. Paragraph 7.1.37 of the post hearing submission was not intended to state that ANPR will not be used at all; rather, that it is only one potential method that might be used, depending on the nature of any future exceedance. ANPR surveys can still be commissioned using a third-party traffic survey contractor if required, but it is not the intention of the Applicant to establish an ANPR monitoring network from the outset.</p> <p>The amendments made at Deadline 3 to the Green Controlled Growth Framework [REP3-017] and Green Controlled Growth Explanatory Note [REP3-015] were similarly intended to clarify the need for future flexibility, to reflect the long term nature of the Proposed Development, and that new and as yet unknown monitoring methods and practices may be available over the course of the next 20 years while the Proposed Development is delivered. Thus, the reference in paragraph 3.3.20 of the Explanatory Note to the “<i>commissioning of additional traffic surveys in order to understand changes in airport-related traffic flows</i>” was intended to be construed as including ANPR as just one potential type of future traffic survey.</p> <p>This approach mirrors the most similar precedent for the ongoing monitoring and management of air quality for a Nationally Significant Infrastructure Project used by the Silvertown Tunnel. Requirement 7 of The Silvertown Tunnel Order 2018 secures compliance with the 'Monitoring and mitigation strategy', which includes air quality impacts. The Monitoring & Mitigation Strategy certified under Schedule 14 is similarly non-prescriptive around how future assessments of that scheme's specific impact will be determined, with respect to the air quality monitoring data that is inclusive of non-scheme impacts:</p> <p style="padding-left: 40px;"><i>“ TfL will therefore appoint an independent air quality expert to review the air quality monitoring data set in the annual monitoring reports.... In coming to a view on the air quality impacts of the Scheme, consideration will therefore need to be given to other data sources including London wide local authority monitoring data, traffic flows, composition or speeds as well as outputs from strategic and local traffic modelling and/or air quality modelling.”</i></p> <p>See Section 4.4 of the Silvertown Tunnel Monitoring & Mitigation Strategy (Ref 2) for further details.</p> | | |

| PINS ID | Question / Response |
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| | <p>To expand upon the revised text included at Deadline 3 in paragraph 3.3.20 of Green Controlled Growth Explanatory Note [REP3-015] and reflected in paragraph D2.3.11 of the Green Controlled Growth Framework Appendix D Air Quality Monitoring Plan [REP3-025], the Applicant envisages that there are a range of options that could be used to determine the airport's contribution to the exceedance of a Level 2 Threshold or Limit at an in scope location. These potential analysis methods reflect current best-practice air quality monitoring and analysis techniques, but it is not the intention for the GCG Framework to mandate any of these steps specifically, in order to preserve the necessary flexibility required, including as technology and techniques may change in the future.</p> <p>Indicatively, this could include: engaging with the relevant local authority to understand local air quality trends elsewhere, or to identify location-specific factors (e.g. roadworks or new developments) or regional factors. More detailed analysis could be undertaken if required using post processing software (such as the 'openair' package) to provide more information on likely sources or compiling an updated emissions inventory for airport activities to understand changes from that forecast in the ES. Where the likely source of any breach cannot be identified from these methods, ANPR could then be used to understand potential changes in emissions from airport-related traffic. Ultimately, more in-depth calculations could still then be needed, potentially including air quality modelling, to determine the exact contribution from the airport.</p> <p>The GCG Framework is intended to provide certainty of the outcome in this scenario – i.e. a determination as to whether the airport is or isn't the cause of an exceedance and therefore whether a Level 2 Plan or Mitigation Plan is or isn't required. To achieve this, whatever methodology is utilised must therefore be able to provide the necessary evidence to the Environmental Scrutiny Group for this determination to take place but will most likely vary depending on the exact nature of the exceedance. Further amendments to the wording in this regard within the GCG Framework will be considered to improve the clarity of the intended requirements.</p> |
| GCG.1.11 | <p>Question:</p> <p>GCG framework – Revision of limits and thresholds in light of changing legal limits Explain the circumstances in which it would be acceptable for the operational controls under the GCG framework [REP3-017] not to align with new UK legal limits (or interim targets) as stated in paragraph 4.4.2 and why new pollutants should be excluded from consideration as stated in paragraph 4.4.1.</p> <p>Response: Please see response to Issue Specific Hearing 5 (ISH5) Action 18 provided in Applicant's Response to the Examining Authority's Deadline 4 Hearing Actions [TR020001/APP/8.84] with regards to the need for the alignment of GCG Limits with new UK legal limits. As set out in that paper, the key distinction is whether any future changes to legislation must automatically be transposed into GCG, such that they would automatically be linked to controls on growth of the airport, rather than the need to comply with any new legislative requirements independently from GCG. Environmental assessments and consenting decisions (based on the findings of those assessments) can only be made against current and known future legislation and policy. It is not reasonable for requirements to be imposed where they would prevent the implementation of a planning consent (such as one that would require future legislation to be automatically transposed into GCG).</p> <p>Regarding the exclusion of new pollutants from GCG in future, and further to the response to ISH5 Action 16, the basis of the GCG air quality Limits is the findings of Air Quality Assessment reported in the Environmental Statement Chapter 7 Air Quality Revision 1 [AS-076]. The following pollutants were considered within the assessment; nitrogen dioxide (NO₂), particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), oxides of nitrogen (NO_x) and ammonia (NH₃), with all other pollutants screened out as they are not likely to cause exceedances of their respective standards as demonstrated by local monitoring and the work carried out by the local authority, and agreed through EIA Scoping and engagement summarised in the Section 7.4 [of Chapter 7]. Of the pollutants scoped in, NO_x and NH₃ were only included on the basis of their potential impacts on vegetation and ecosystems rather than human health, and no significant effects are predicted at ecological sites. The remaining three pollutants are therefore the ones most relevant to human health, which were consequently assessed and included as GCG air quality Limits.</p> <p>In circumstances where new UK legal limits are introduced or new pollutants brought into the legal framework it is not considered proportionate to bring those into GCG as it would require a significant re-assessment of the work carried out for the Environmental Impact Assessment (EIA) to provide the necessary evidence base. To undertake such an assessment again in the future (essentially needing to repeat the EIA) would in the Applicant's view be disproportionate and unnecessary, for the reasons set out in the response to ISH5 Action 18.</p> <p>However, without prejudice to the position set out in the response to ISH5 Action 18, as part of the mandatory review process committed to by the Applicant where new legal limits are published, consideration will be given to the need for additional measures to be included within the Operational Air Quality Plan (i.e. outside of GCG). This could, if</p> |

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| | deemed appropriate, include measures relating to other pollutants in addition to NO ₂ , PM ₁₀ and PM _{2.5} . The Applicant is willing to make changes to the Green Controlled Growth Framework [REP3-017] to reflect these requirements as part of the review process, subject to further engagement on the changes with relevant stakeholders. |
| GCG.1.12 | <p>Question:</p> <p>GCG Appendix A – Draft ESG Terms of Reference [REP3-019] Applicant: Explain why the threshold for ESG being quorate in paragraph A2.2.1 has been revised from “<i>where the independent chair and independent aviation specialist (or a substitute agreed as per paragraph A2.1.12) and at least 50% of other representatives are present</i>” to “<i>where the independent chair, independent aviation specialist and slot allocation expert (or a substitute agreed as per paragraph A2.1.12) are present</i>”.</p> <p>Joint Host Authorities: Is this change acceptable and if not, why not?</p> <p>Response: Following submission of the application for development consent, a critical review of the Terms of Reference for both the Environmental Scrutiny Group and Technical Panels included at Green Controlled Growth Framework Appendix A Draft ESG Terms of Reference [REP3-019] and Green Controlled Growth Framework Appendix B ESG Technical Panels Draft Terms of Reference [REP3-021] was carried out to ensure that the functioning of GCG could not be frustrated or otherwise unintentionally hindered by any party to the process. This review identified a risk that local authorities could nominate an officer to represent them on the ESG and Technical Panels, but that if these local authority representatives subsequently did not attend meetings of the ESG or Technical Panels they would not be quorate and the GCG process could not be moved forward. The changes made at Deadline 3 were therefore only to ensure the future functioning of the GCG process in this (unlikely) scenario, with the intention that the operation of ESG and the Technical Panels would still be independent from the airport and would be in accordance with the operating principles of GCG.</p> <p>However, the Applicant understands the potential concerns around the changes made to this wording and is engaging with the Host Authorities on this matter, with a view to agreeing further changes through the Statement of Common Ground process to be made to the Terms of Reference at Deadline 5. The changes will reintroduce a minimum number of local authority representatives to be present for the ESG and Technical Panels to be quorate.</p> |
| GCG.1.13 | <p>Question:</p> <p>GCG Framework Appendix B – Draft Technical Panels Terms of Reference [REP3-021] Applicant: Explain why the threshold for a technical panel being quorate in paragraph B2.2.1 has been revised from “<i>where the independent technical expert and at least 50% of any other approved representatives (as per Paragraph B2.1.7) are present</i>” to “<i>where the independent technical expert is present.</i>”</p> <p>Joint Host Authorities: Is this change acceptable and if not, why, not?</p> <p>Response: Please see the response to GCG.1.12.</p> |
| GCG.1.15 [GCG1.14 not included by ExA] | <p>Question:</p> <p>GCG Framework Appendix B – Draft Technical Panels Terms of Reference [REP3-021] Applicant: Explain why meetings of the Technical Panel would only be at the discretion of the technical expert as set out in B2.5.1.</p> <p>Joint Host Authorities: Is this change acceptable and if not, why not?</p> <p>Response: The Applicant would note that this is not a change, and that this drafting has been in the GCG Framework Appendix B ESG Technical Panels Draft Terms of Reference [REP3-021] since submission of the application for development consent.</p> <p>This drafting has been put forward to recognise the fact that there may not always be a requirement for a Technical Panel to meet and that, where this is the case, there should be no obligation secured via the DCO to do so. For example, if all members of a Technical Panel are satisfied that monitoring results reported to it do not give rise to</p> |

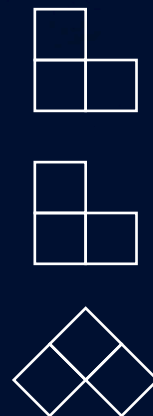
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| | <p>any issues and have not triggered any requirements linked to a Level 2 Threshold or Limit, they are able to respond to the airport operator and ESG on that basis in writing without a requirement to formally meet, as per the process set out in Section B4.3 of the Terms of Reference.</p> <p>As set out in Paragraph B2.5.1, any member of a Technical Panel may request that a meeting takes place where they feel this is necessary, but ultimately this will be at the discretion of the technical expert in their role as chair of the relevant Technical Panel</p> |

REFERENCES

Ref 1 Civil Aviation Authority, (2021); CAP 2091: CAA Policy on Minimum Standards for Noise Modelling
Ref 2 Transport for London (2017). Silvertown Tunnel Monitoring & Mitigation Strategy (Rev 2).

APPENDIX A

London Luton Airport



Noise Action Plan 2024–2028



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Appendix

Foreword

As the UK's fifth largest airport, London Luton Airport (LLA) plays an important role in the social and economic success of Luton and its surrounding region.

Our influence stretches far beyond our own operations and we support the regional and national economy through the creation of direct and indirect employment opportunities and the continued strengthening of our relationships with local businesses. In 2022, 53% of LLA's total supply chain spend was allocated to local suppliers based within a 25-mile radius of the airport.

Despite the significant benefits that London Luton Airport delivers, we understand that aircraft noise can be a concern for some people who live near the airport and beneath our flight paths. The vital importance of striking a balance between our work as a thriving airport and operating responsibly to our neighbouring communities and, as this plan demonstrates, we are committed to reduce the noise impact of our operations wherever and whenever possible.

In 2019, prior to the pandemic, LLA reported record passenger numbers of just below 18 million. In 2021 (the assessment year for this Noise Action Plan), pandemic guidelines, continuing international travel restrictions, extensive testing and quarantine measures all contributed to a sharp decline in air travel and London Luton Airport handled 61,560 aircraft movements and 4.5 million passengers.

Although LLA operates under some of the most stringent noise control measures of any major UK airport, we are continually looking to do more within the framework of our plans for future sustainable growth.

Managing and mitigating the impacts of aircraft noise is a priority for LLA and we are continually evolving our noise management approach in order to reduce noise impacts for local areas.

This Noise Action Plan demonstrates how we will monitor and manage noise from aircraft operations over a five-year period (2024-2028). It demonstrates the ways in which we are working in collaboration with airline partners, local communities and other key stakeholders to limit noise and, where possible, reduce the number of people affected by aircraft noise. The noise action planning process operates across a

five-year cycle. This Noise Action Plan sets out our vision and includes details of 50 noise management actions and commitments designed to drive continued improvement across five key areas: Operational Procedures, Quieter Aircraft, Land-Use Planning and Mitigation, Operational Restrictions, and Working with the Local Community and Industry Partners.

We look forward to working closely with our local communities, airlines, NATS and policy makers to deliver this new Noise Action Plan that continues to build on our efforts to reduce the impact of ground and air noise from our operations.



Neil Thompson
Operations Director
London Luton Airport

Purpose and Scope



This Noise Action Plan has been prepared in response to the Environmental Noise (England) Regulations 2006 which requires regular noise mapping and action planning for road, rail and in this case aviation noise and noise in large urban areas. This also requires a Noise Action Plan, identifying important areas (areas exposed to the highest levels of noise) and suggests ways the relevant authorities can reduce these. This Plan addresses the period 2024 – 2028, whilst the previous approved Noise Action Plan addressed the period 2019 – 2023.

The requirements of the Environmental Noise (England) Regulations 2006 build upon the Government’s aim, as set out in the Aviation Policy Framework (March 2013), “to limit and where possible reduce the number of people in the UK significantly affected by aircraft noise”.

The Regulations require the preparation of Strategic Noise Maps and this Action Plan has been developed in connection with the 2021 noise mapping and in accordance with the Environmental Noise (England) Regulations 2006 (as amended) and associated guidance updated by DEFRA in September 2022.

London Luton Airport Operations Limited, as operator of London Luton Airport, is the competent authority for developing this Noise Action Plan. This Noise Action Plan will be formally submitted to the Secretary of State for Environment, Food and Rural Affairs and will be published in its final format once formal adoption has been confirmed by DEFRA.

This plan includes updated noise mapping and a new set of noise actions. It has been developed with the London Luton Airport Consultative Committee (LLACC) with an initial six week consultation period taking place in line with the directive. For some residents, aircraft noise is a serious concern, and the aviation industry recognises that it needs to better understand specific issues that disturb the public.

London Luton Airport is committed to being a good neighbour and endeavours to minimise the impact of its operations on local communities.

Continued and enhanced consultation with the community is essential so that an appropriate balance can be struck between the socio-economic benefits of airport operations and its environmental impacts. This Noise Action Plan, once adopted by DEFRA, will provide a meaningful framework for London Luton Airport and its Consultative Committee to build upon it’s established approach to the proactive management of aircraft noise in and around the airport.

London Luton Airport

London Luton Airport is an important international centre for commercial, business and cargo aviation, as well as aircraft maintenance. In 2021 (the assessment year for this Noise Action Plan), London Luton Airport handled 61,560 aircraft movements and 4.5 million passengers. Whereas in 2019, LLA handled 141,481 movements and 17.9m passengers.

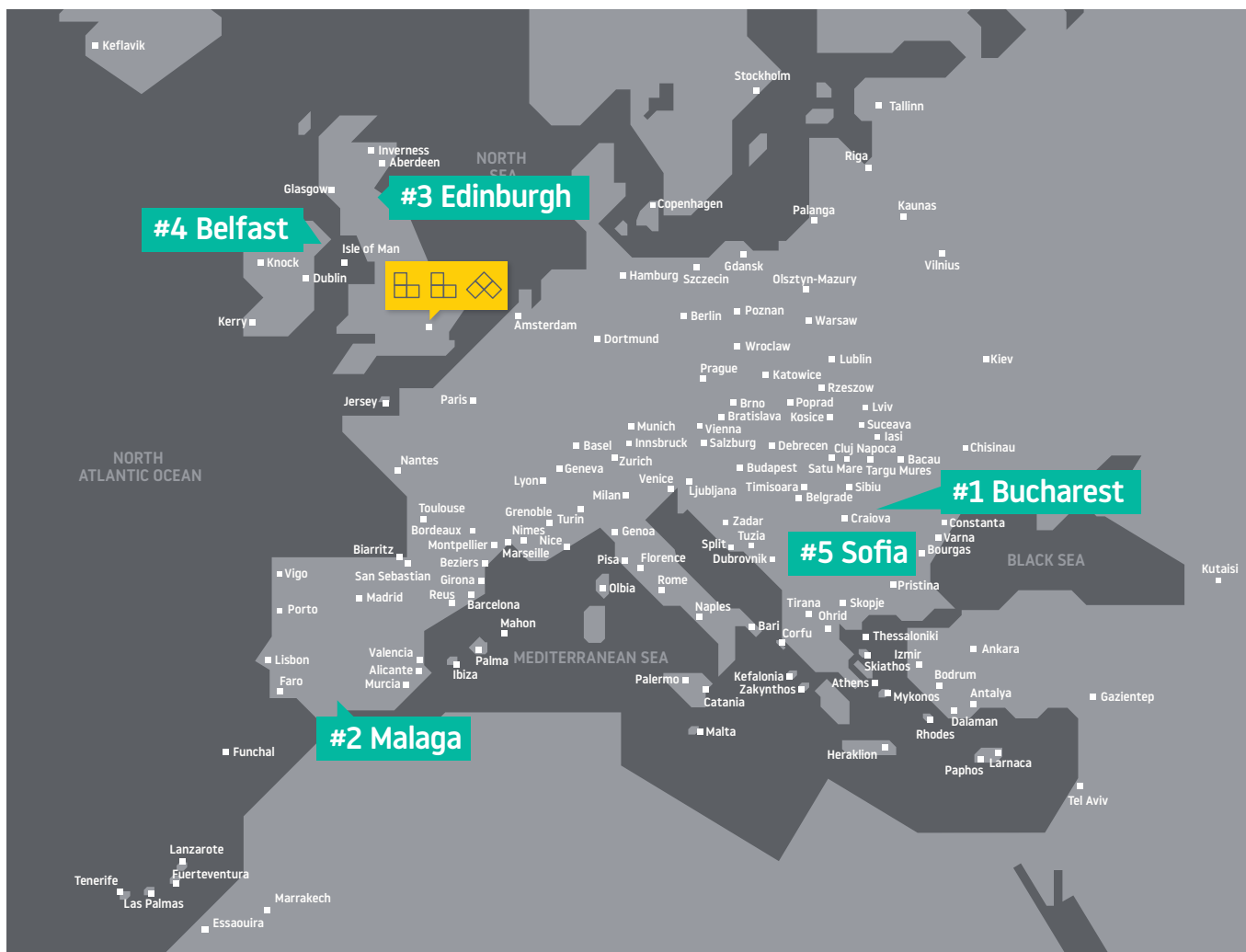
It should be noted that in 2021 the number of movements and passengers was suppressed due to the impact of the COVID-19 pandemic.

The main aircraft types operating in 2021 were Airbus A320 and private aircraft, Airbus A320 are operated by easyJet and Wizz Air; private aircraft are handled by Signature or Harrods aviation. Due to the COVID-19 pandemic B737-800 were the third largest aircraft in use at the airport during 2021, these aircraft are mainly operated by Ryanair. These were closely followed by Airbus A320 NEO and A321 NEO both operated mainly by Wizz Air and easyJet.



Despite the pandemic in 2021, our airlines flew to 129 destinations across 39 different countries. The map below shows the destinations flown/on sale to and from London Luton in 2021.

Top 5 destinations by aircraft movements in 2021 were:



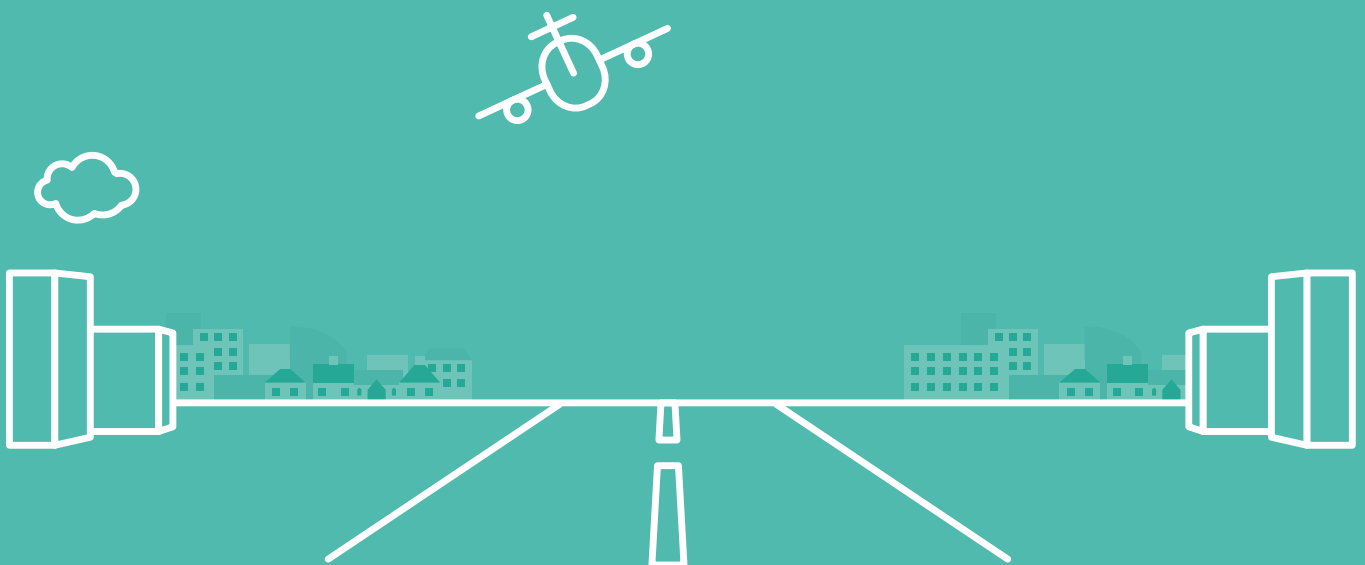
Local Communities

London Luton Airport has one runway which is 2162m in length and six main Noise Preferential Routes (NPRs); three departing in an easterly direction and three departing in a westerly direction. There are two arrival routes, one arriving from a westerly direction and one from the east. The maps on the following pages illustrate the six Noise Preferential Routes and two arrival routes at the airport.

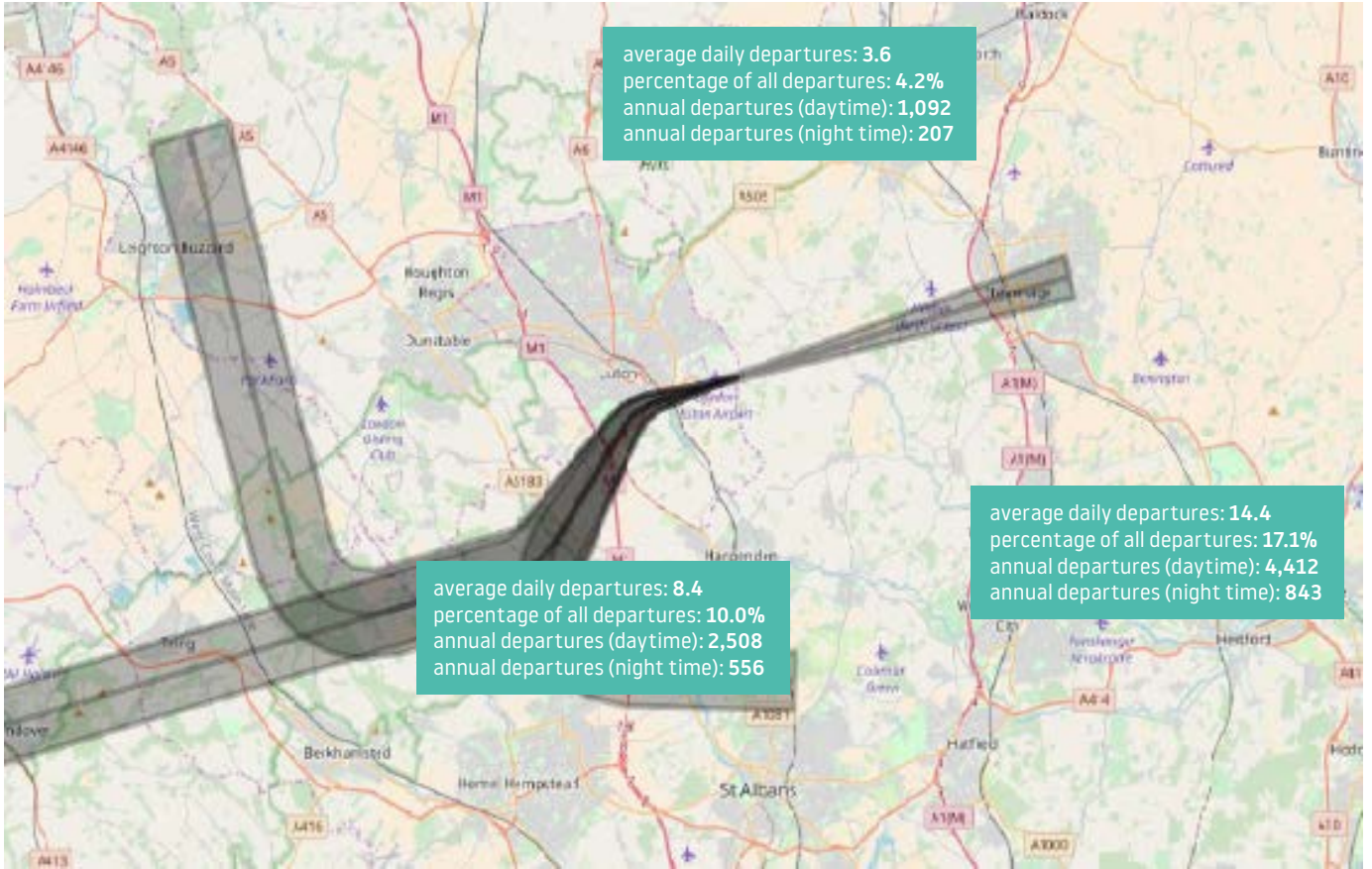
The closest residential areas to the airport are those located to the west and south-west of Luton, however the more densely populated areas are to the north. There are a number of small villages within relatively close proximity. Breachwood Green and Whitwell, located to the east, are predominantly affected by easterly departures and westerly arrivals. Residential areas to the west, such as Slip End, Caddington, Flamstead and Markyate are generally affected by easterly arrivals or westerly departures.

As part of an airspace change proposal implemented in February 2022, areas of North Bedfordshire and South Cambridgeshire are now overflown below 7,000ft. These are areas which had not been previously overflown by London Luton Airport traffic.

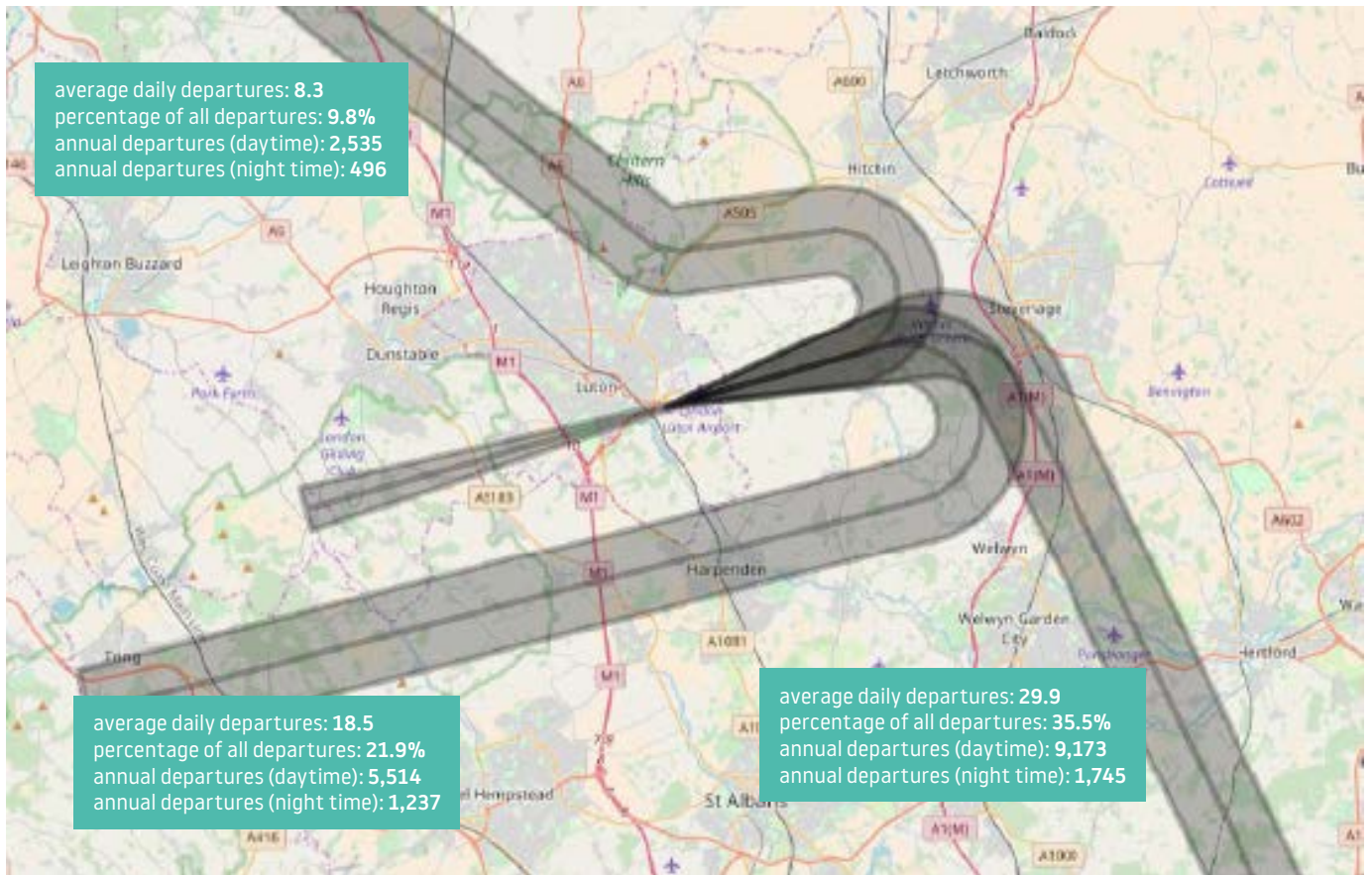
In addition to aircraft noise originating from London Luton Airport, the surrounding areas are also affected to varying degrees by road traffic noise, as well as overflights travelling to and from other UK airports.



Plan showing Easterly (07) flight routes and 2021 traffic statistics



Plan showing Westerly (25) flight routes and 2021 traffic statistics



LLA's Contribution to the Local Economy

London Luton Airport plays a significant role in the local, regional and national economy and its continued recovery from the pandemic. The airport's plans for future sustainable growth are central to the prosperity of the town and wider region.

In December 2021, the airport's freeholder, Luton Rising commissioned Oxford Economics to undertake an analysis of the economic impact of London Luton Airport on the UK as a whole, and on the surrounding sub-regional and local economies.

The study found that in 2019 the economic activity supported by London Luton Airport contributed some £1.8 billion to UK GDP. For every £1 the airport directly contributed to UK GDP itself, it supported another £1.30 elsewhere in the UK economy.

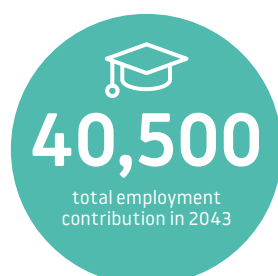
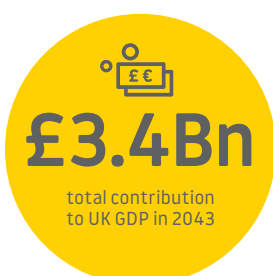
As one of the major employers in the region, the airport is estimated to have supported 28,400 local and regional jobs in 2019, including within the supply chain and direct and indirect employee spending. This comprised 10,900 direct jobs, 8,600 indirect jobs within the airport's supply chain and 8,900 induced jobs supported by the spending of airport and supply chain employees.

For every job directly supported by the operations of the airport, another 1.6 were supported elsewhere in the UK economy.

London Luton Airport is also a vital contributor to the local supply chain, with 53% of our supply chain spend allocated to suppliers within a 25-mile radius of the airport.

In addition, each year, LLAOL and Luton Rising both also invest heavily in key voluntary and charitable community services to improve lives in Luton and its surrounding areas. In 2019, this contribution amounted to £9million.

With substantial changes to the capacity of London Luton Airport planned, the Oxford Economics study also forecast how LLA's economic impact is likely to evolve in the years to 2043. It suggests that the airport's total contribution to UK GDP will reach £3.4 billion in 2043 (in 2019 prices), and its total employment contribution will increase to 40,500 in 2043.



Airport Development

From 7th October 2020 to 11th November 2020 London Luton Airport Operations Ltd (LLAOL) consulted on increasing its capacity from 18 million passengers per annum to 19 million passengers per annum.

Luton Council resolved to grant planning permission in December 2021 but in March 2022 the application was called in by the secretary of state for Communities, Levelling Up and Housing and the secretary of state for Transport to make a final decision. In October 2022 a public inquiry was held by the Planning Inspectorate, with the Inspectors' report submitted to the secretary of state in May 2023. A decision is expected in due course.

The 19 million passenger application is separate to an application from Luton Rising (the airport freeholder) regarding their 32 million passengers per annum application.

Development Consent Order (DCO)

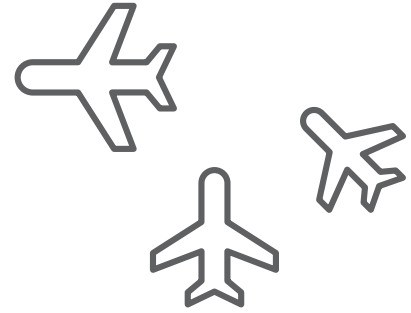
Separately, on 29th March 2019, Luton Rising (formerly known as London Luton Airport Ltd), the airport freeholders, submitted a scoping report to the secretary of state outlining its intention to submit an application for Development Consent Order (DCO) regarding the expansion of London Luton Airport. This would include an increase in the current passenger cap up to 32m passengers per annum, a new terminal, additional taxiways, and other transport infrastructure. The DCO plans are now in the examination process which formally started on 10th August 2023.

More information can be found on their planning portal [here](#).

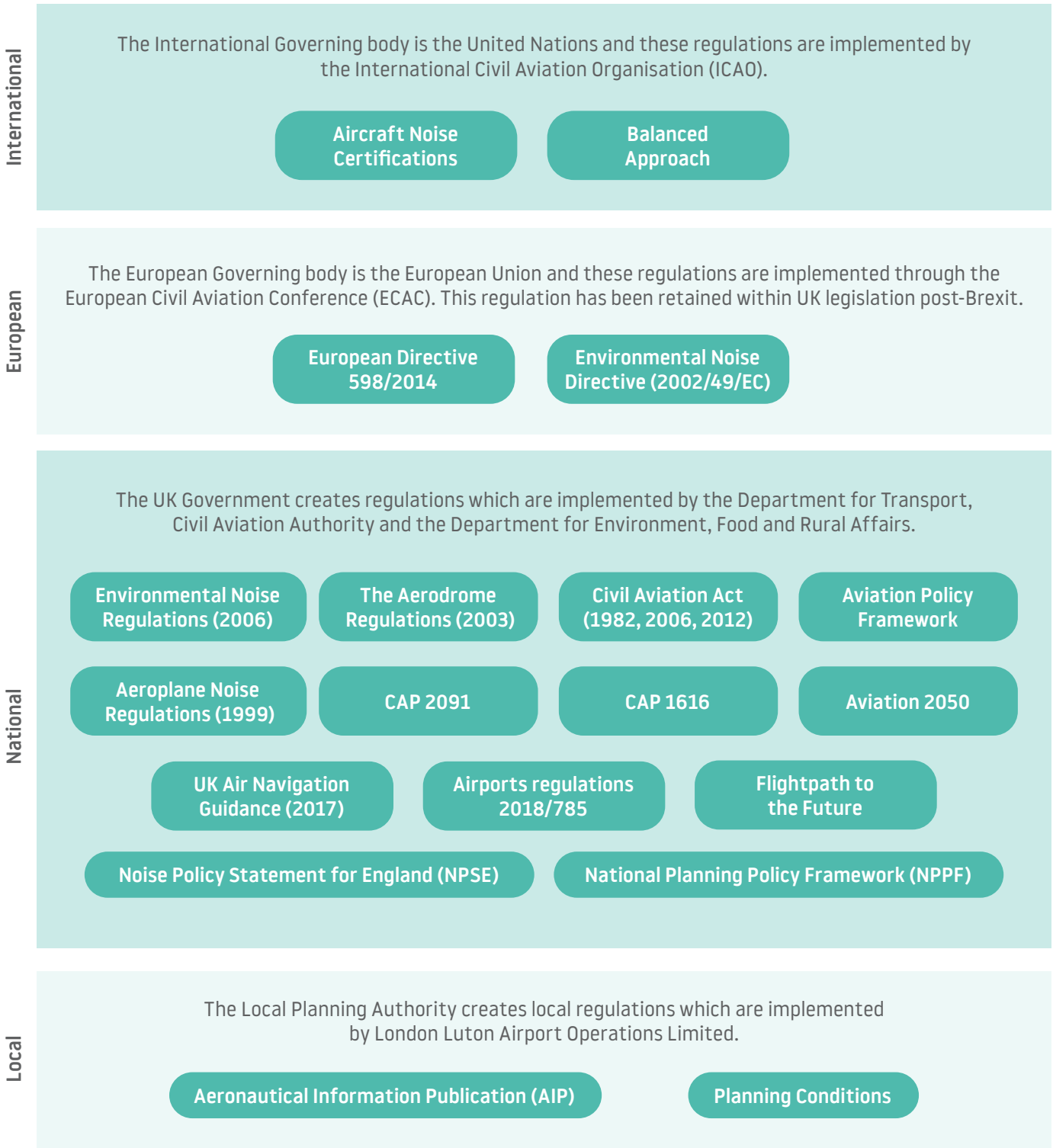
This application could assist in supporting the delivery of an additional 12,000 new jobs and an economic benefit of £1.8 billion every year.

This application was submitted in February 2023 and accepted by the Planning Inspectorate in March 2023. The next stage will be for the Examining Authority to consider the application and provide a report with its recommendation to the Secretary of State for decision.

Background to Legal Context



The following section sets out a summary of the relevant international, national and local legislation and policy for aircraft noise management. The diagram at the bottom of the page provides the tiers of aircraft noise regulation for operations at London Luton Airport.



International Regulation

The International Civil Aviation Organisation (ICAO) is the agency of the United Nations which oversees the civil aviation industry. ICAO adopts standards, protocols and recommended practices relating to all aspects of international aviation.

Balanced Approach

Since 2001, ICAO seeks members to adopt a 'balanced approach' to aircraft noise management. This includes reducing noise at source; the use of operational noise abatement procedures, land use policies and management, and restricting and banning the operation of certain aircraft; ICAO has developed policies on each of these elements. This approach has been followed when developing this Noise Action Plan.

Aircraft Noise Certifications

ICAO sets noise emission standards for all aircraft types, these are known as 'chapters'. These standards are progressively strengthened to prohibit aircraft that do not meet certain noise emission standards. Chapter 2 aircraft have been banned from operating in UK airspace 1st April 2002, unless granted exemptions.

Retained European Regulation

On 31st January 2020, the UK formally ceased to be a member state of the European Union (EU). The UK and EU entered a transition period until officially exiting on 31st December 2020. Directives relating to the management and control of environmental noise have been issued by the European Commission (EC). Although some regulation has been retained within UK legislation.

European Directive 598/2014

This legislation establishes the rules and procedures with regard to the introduction of noise related operating restrictions at Union Airports within a Balanced Approach. It also sets out the definition of marginally compliant aircraft and the process to be followed in the implementation of an operating restriction.

Environmental Noise Directive (2002/49/EC)

Directive 2002/49/EC is the Environmental Noise Directive (END) which defines a common approach intended to avoid, prevent or reduce on a prioritised basis the harmful effects, including annoyance, due to exposure of environmental noise. It requires airports over 50,000 movements to develop Noise Action Plans and produced Strategic Noise Maps.

In accordance with the END, London Luton Airport was identified as a major airport and consequently Strategic Noise Maps have been produced and this Noise Action Plan prepared. Annex V of END specifies those elements that a Noise Action Plan must include.

National Regulation

The UK Government has enacted several policies and regulations relating to the management and control of environmental noise and noise from aircraft and airports. These are summarised below:

Civil Aviation Act 1982 (as amended including the Civil Aviation Act 2006 and 2012)

The Civil Aviation Act 1982 is the principal legislation within the UK for the control of aircraft operations. The Act provides a legislative means of avoiding and limiting the effect of noise from aircraft arriving and departing at UK airports. This includes the enforcement of aircraft noise emission standards and operational procedures as well as the provision to enable airport operators to use charging mechanisms to encourage the use of aircraft that are quieter or with lower emission levels.

Aeroplane Noise Regulations 1999/1452 (CAP2063A00)

These regulations provide a set of statutory instruments that describe various methods that are implemented by the Civil Aviation Authority (CAA) that allow noise certified aircraft to use UK airports. The Regulations refer to ICAO noise certification standards and noise limits. The Regulations also provide a list of aircraft that are exempt from noise certification by ICAO.

The Aerodromes (Noise Restrictions) (Rules and Procedures) Regulations 2003

These regulations were transposed from EC Directive 2002/30/EC which builds on ICAO's Balanced Approach. The Regulations apply to all city airports and other civil airports within the UK which have more than 50,000 civil aircraft movements a year and give airport operators the scope to restrict marginally compliant aircraft.

The Environmental Noise (England) Regulations 2006 (as amended)

The Environmental Noise (England) Regulations 2006 (as amended), came into force in 2006 and transpose the requirements of the European Noise Directive (2002/49/EC) into English law. The Regulations also name the competent authorities responsible for their delivery. Under the Regulations, the competent authority for preparing Strategic Noise Maps and a Noise Action Plan for London Luton Airport is London Luton Airport Operations Limited, the airport operator. Strategic Noise Maps for London Luton Airport have been produced and submitted to the Secretary of State for Environment, Food and Rural Affairs.

The Regulations state that Noise Action Plans must be prepared, adopted and reviewed when necessary but at least every 5 years and whenever a major development occurs.

Furthermore, in September 2022, DEFRA published updated guidance for airport operators to produce airport Noise Action Plans. This Noise Action Plan has

been prepared having regard for this guidance, as required by the Regulations.

Aviation Policy Framework

The Aviation Policy Framework (APF) was published in March 2013 and fully replaced the 2003 Air Transport White Paper (ATWP) as government's policy on aviation, alongside any decisions government makes following the recommendations of the independent Airports Commission. The Government have advised in the APF that they want to strike a fair balance between the negative impacts of noise and the positive economic impacts of aviation. The Government's overall policy on aviation noise is "to limit and, where possible, reduce the number of people in the UK significantly affected by aircraft noise." This is consistent with the Government's Noise Policy, as set out in the Noise Policy Statement for England (NPSE) which aims to avoid significant adverse impacts on health and quality of life. The noise commitments are similar to those given in the ATWP.

In 2017, following a consultation, the Department for Transport introduced some changes to airspace policy, including the creation of a new Independent Commission on Civil Aviation Noise (ICCAN), amendments to compensation policy, and new metrics to consider noise and health impacts further away from the airport than at present; Although ICCAN have now been disbanded their work is still useful in the context of the policy.

UK Air Navigation Guidance (2017)

This guidance is intended to provide direction to the CAA and airports when conducting an airspace change. It includes detailed guidance on the potential environmental impacts of airspace change as well as highlighting the need for engagement and transparency during an airspace change. The guidance also provides clarity of the Secretary of State's call-in function during the Airspace Change Process.

Airports (Noise-related Operating Restrictions) (England and Wales) Regulations 2018/785

The Airports (Noise-related Operating Restrictions) (England and Wales) Regulations 2018 implement the requirement to designate competent authorities for the purposes of Regulation (EU) No 598/2014 procedures with regard to the introduction of noise-related operating restrictions at Union airports following the Balanced Approach.

Planning Policy

In 2010 the Noise Policy Statement for England (NPSE) was brought in for noise to be considered in all planning applications, this includes noise from aircraft. The policy aims to promote good health and a good quality of life through the effective management of noise within the context of Government Policy on sustainable development.

In March 2021, the Government issued an updated

National Planning Policy Framework (NPPF). It is important that aircraft noise is considered when considering new developments close to the airport boundary or flight paths. In order to address this the NPPF advised that planning policies and decisions should aim to:

- Ensure new development is appropriate for its location taking into account the likely effects of pollution on health, living conditions and the natural environment.
- Mitigate and reduce to a minimum potential adverse impacts on health and quality of life arising from noise from new development
- Identify and protect areas of tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.

Aviation 2050

As part of the development of its new aviation strategy, the government published a Green Paper Aviation 2050 'the future of UK aviation'. The core objectives underpinning Aviation 2050:

- a. help the aviation industry work for its customers
- b. ensure a safe and secure way to travel
- c. build a global and connected Britain
- d. encourage competitive markets
- e. support growth while tackling environmental impacts; and develop innovation, technology, and skills

Aviation 2050 includes key proposals around noise from airport development, seeking additional measures to ensure better outcomes of noise standards and procedures. It also included measures proposed to improve noise insulation schemes around airports, with consideration of additional powers being given to the Civil Aviation Authority (now the noise regulator for the industry) in enforcement of the measures.

Flight path to the future

The most recent statement of government aviation policy, published in May 2022, is Flight Path to the future (FTTF). FTTF responds to the Aviation 2050 consultation described above and sets out "a strategic framework for aviation over the next ten years". In particular, FTTF sets out to address the challenges faced by the industry following the Covid-19 pandemic and taking into account the effects of Brexit and the government confirming its support for airport expansion.

The Proposed Development would contribute to several of the government's four key themes as set out in FTTF:

- a. Enhancing global impact for a sustainable recovery
- b. Embracing innovation for a sustainable future
- c. Realising benefits for the UK
- d. Delivering for users

Flightpath to the Future does not provide any specific updates to noise policy but refers to the draft policies and aims set out in Aviation 2050 noting that "these aims remain very relevant and we will set out next steps in 2022/2023".

CAP 1616

CAP 1616 is a CAA document which explains the regulatory process to change current airspace. It is a seven stage process which includes developing and accessing airspace change options, engagement with stakeholders, consultation requirements and the decision process. Any airspace change must follow this process.

CAP 2091: CAA Policy on Minimum Standards for Noise Modelling 2021

Provides the minimum acceptable level of noise modelling that the CAA should undertake for an airport depending on the population exposed to air noise.

Overarching Aviation Noise Policy

The government’s overall policy on aviation noise is to balance the economic and consumer benefits of aviation against their social and health implications in line with the International Civil Aviation Organisation’s Balanced Approach to Aircraft Noise Management. This should take into account the local and national context of both passenger and freight operations, and recognise the additional health impacts of night flights.



Local Regulation

A range of policy instruments are available at a local level to manage and minimise the effects of aircraft operations.

Aeronautical Information Publication (AIP)

As a result of the national regulations listed, each UK airport created a document which provides the specific noise controls when operating at each airport. It includes Noise Preferential Routes (NPR’s), Continuous Descent Approaches (CDAs) and night noise restrictions. LLA’s AIP can be found [here](#):

Planning Conditions

As well as government legislation, extra noise controls have been defined by LLA’s local planning authority (Luton Council) as part of the redevelopment plans granted in 2014. These conditions are some of the most stringent in the country and relate to the specific aircraft types operating, number of aircraft operating during the night time period, as well as the introduction of a Noise Insulation Scheme. A full list of planning conditions relating to noise can be found in Appendix F.

As explained above in the Airport Development section of this plan, LLA have submitted a planning application to increase the annual passenger cap from 18mppa to 19mppa, which includes a temporary increase in the noise contour limits. If approved this will change the local planning conditions. A new Section106 planning agreement will be required.



Framework for Noise Management

The COVID-19 pandemic had a significant impact on the aviation industry. During the pandemic, many projects were put on hold, but LLA along with Luton Rising are continuing with the biggest investment in the history of the airport to transform and develop. But, it is vitally important to us that the local community also shares in the success of the airport.

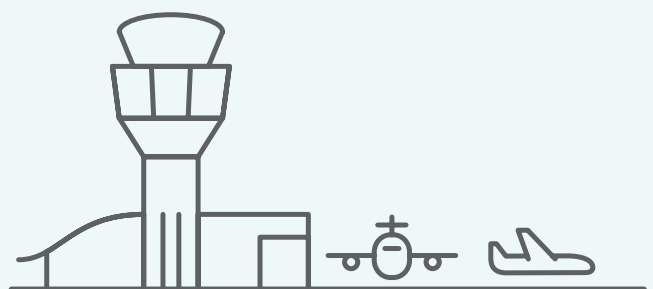
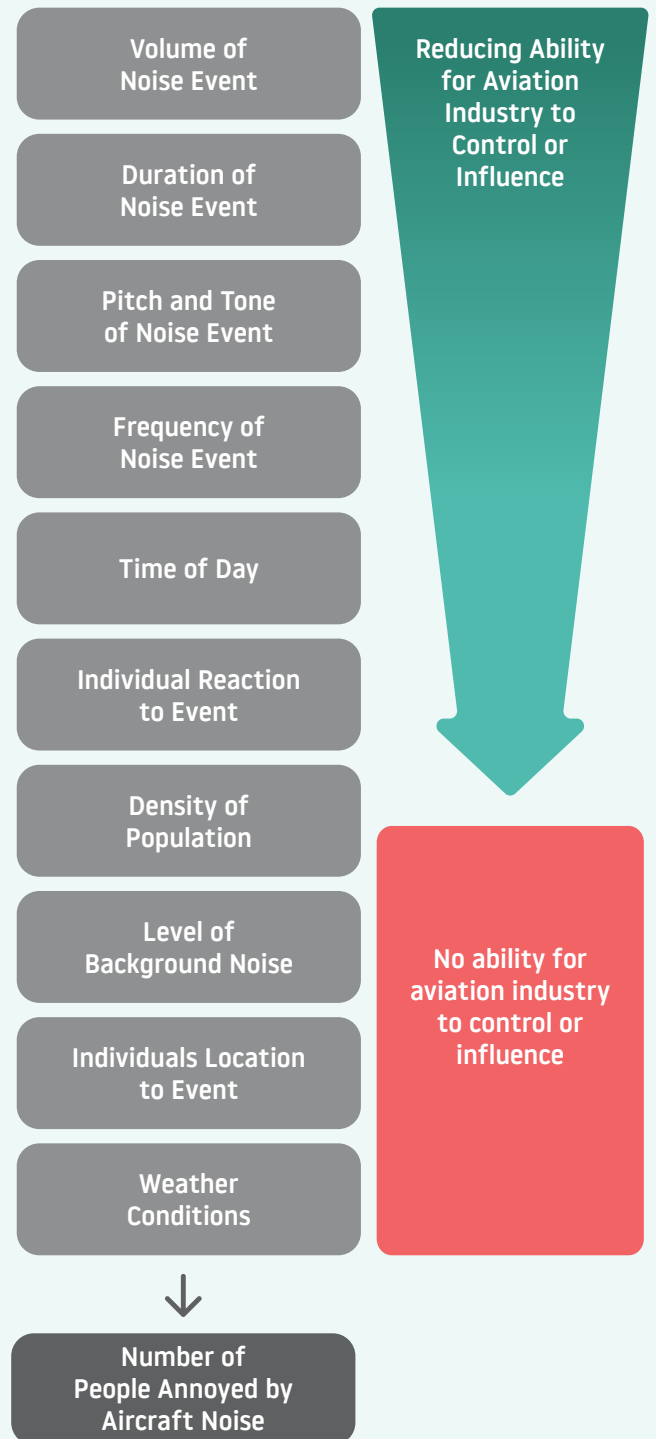
At LLA, our aim is always to work constructively with the local community and our partners to strike the right balance between maximising the positive social and economic benefits to the local area and the UK as a whole while minimising the impact of aircraft noise.

LLA already operates under the most stringent noise restrictions of any major UK airport. But we are continually looking to do more. As the airport continues its growth and development, we are evolving our approach to noise management and this can be seen through the development of our Noise Action Plan.

LLA's Noise Strategy

The main objective of managing noise is to limit, and where possible reduce the number of people significantly affected. Aircraft noise is subjective and peoples level of tolerance levels vary. The diagram shown to the right* details factors which can cause an individual to become annoyed at aircraft noise. Some of these variables can be minimised by the aviation industry, whereas others may need a multi-stakeholder approach. There are also some factors which cannot be controlled by the aviation industry and therefore these will not be addressed in this plan.

Our strategy has been developed in line with the International Civil Aviation Organisation's (ICAO's) Balanced Approach to Aircraft Noise Management, which comprises of four key elements, such that they achieve maximum environmental benefit in the most cost effective manner. We have combined this approach with Sustainable Aviation's Noise Road-Map as we believe that working with the local community and industry partners should also form part of our Noise Strategy. Our 5 main work areas are explained in the table on the following page.



*Source: Sustainable Aviation Noise Road-Map <https://www.sustainableaviation.co.uk/goals/noise/>

| Approach | Description |
|--|---|
| Operational Procedures | We will aim to regularly review our operating procedures to seek to implement environmentally friendly procedures, as part of this we will challenge best practice to provide continuous improvement. If more fundamental changes to airspace are required we will proactively engage with stakeholders, in line with CAP 1616, to effectively manage aircraft noise impacts. |
| Quieter Aircraft | Modern aircraft are less noisy than previous generations, however as traffic continues to grow where demand for air travel increases, this reduction can often be counteracted by the number of aircraft overflying an area. At LLA we are encouraging operators to use the quietest aircraft practicable to the Luton operation, particularly during early morning and night time periods. |
| Land-use Planning and Mitigation | Through communication with local planning authorities we will continue to discourage developments near the airport which would give rise to the number of people significantly effected by noise. Furthermore, we will proactively review the Noise Insulation Scheme to ensure that it remains an effective means of noise mitigation. |
| Operational Restriction | Restrictions should not be the first option when it comes to noise management however, we have a range of operating restrictions including movement limits and noise quota limits. Where restrictions are in place we are focused on ensuring that they are adhered to fully. |
| Working with the local community & industry partners | In order to reduce the impact of noise we recognise the importance of working with our communities and industry partners to understand any concerns and take action where possible, keeping communities up to date. |

Operational Procedures

At London Luton Airport we monitor adherence to noise procedures through our Aircraft Noise and Track System. This system captures aircraft flight information operating within a 25 mile radius of the airport and generally up to an altitude of 12,000ft. The public can access this system [here](#).

It receives data from our fixed and portable noise monitoring terminals, located within the neighbouring communities. This enables us to:

- identify noise infringements and to subsequently impose penalties where relevant;
- monitor track-keeping and work with operators to improve performance;
- monitor noise in all our local communities;
- Investigate complaints of disturbance and enquiries.

Off-track Violation Scheme

Aircraft taking off normally generate more noise than landing, as such aircraft are required to follow specific paths called Noise Preferential Routes (NPRs) unless otherwise directed by air traffic control.

Each NPR corridor extends 1.5 km either side of the NPR centre-line and to a release altitude typically 3,000 feet in the day and 4,000 feet at night. Aircraft flying on our RNAV capable routes have a release altitude of 4,000 feet day and night. Aircraft flying inside this narrower corridor or above the release altitude are considered on-track,

those flying outside are considered to be off track and may be subject to charges. All of the charges are put into the Community Trust Fund, which provides grants to community groups and charities in Bedfordshire, Hertfordshire and Buckinghamshire. In 2021, there were 23 off-track violations which contributed £25,000 to the Community Trust Fund.

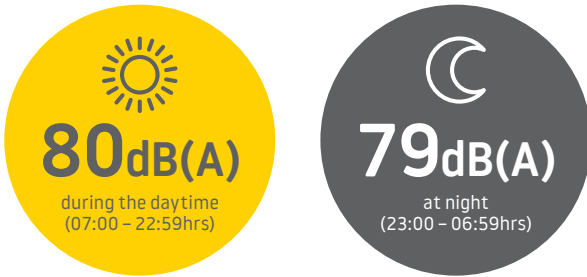
Once an aircraft reaches the NPR release altitude an air traffic controller can instruct it to turn onto a more direct heading to its destination, which may take the aircraft outside the NPR corridor - this is called vectoring. There may be occasions where it is necessary for safety reasons (e.g. to avoid severe weather conditions) to vector aircraft off NPRs below the release altitude.

The approved Noise Preferential Routes for departures from LLA are shown on page 7. These areas have been established in consultation with the Civil Aviation Authority and LLACC.



Noise Violation Scheme

Noise levels of departing aircraft are monitored at three locations 6.5km from start of roll on the runway, the international standard set by ICAO. Any aircraft departure exceeding the noise violation limits at these monitors will be charged accordingly. The noise limits were lowered in 2020 are:



Since April 2018, if an aircraft exceeds these noise limits during the day time they will be charged £1,000, an aircraft exceeding in the night time will be charged £2,000. All charges are put into the Community Trust Fund.

Continuous Descent Operations

We encourage all operators to use a Continuous Descent Operations (CDO), this technique means an aircraft stays higher for longer and descends at a continuous rate to the runway threshold, reducing periods of prolonged level flight at lower altitudes. With CDO less fuel is burnt, less emissions are produced and it reduces noise by avoiding the use of engine thrust required for level flight.

At LLA we work closely with our operators and in order to achieve our target of 95% compliance increasing CDO performance where possible.

Full Length Runway Take-off trial

At LLA, aircraft can choose whether to use the full length of the runway for departure or whether to use the intersection where the taxiway meets the runway. The settings of an aircraft will change dependent upon where it chooses to start the departure, therefore this can cause different noise levels on the ground and climb profiles.

LLA conducted a full-length runway take-off trial in Feb-Mar 2022 in order to understand more about these differences. All departing aircraft were asked to take-off using the full length of the runway rather than using the intersection. During the trial, noise and track data was monitored and LLA found there was a small reduction in noise very close to the airport, but no difference further away from LLA, when the aircraft used the full length of the runway. LLA found there was a small reduction in noise very close to the airport, but no difference further away from LLA, when the aircraft used the full length of the runway.

Noise Abatement Departure Procedure trial (NADP)

At LLA, operators use a mix of Noise Abatement Departure Procedures. These are known as Noise Abatement Departure Procedure 1 (NADP1) and Noise Abatement Departure Procedure 2 (NADP2). These procedures are designed to distribute the noise from an aircraft in different ways. There are key differences in the flight profile between the two procedures, which produce different noise profiles for communities on the ground. When an aircraft operates NADP 1, the aircraft climbs quicker initially with a reduction of thrust, reducing noise close to the airport. The aircraft has flaps out for longer, increasing drag, which results in higher noise further from the airport. When an aircraft operates NADP 2, the aircraft does not reduce thrust at 800 feet therefore creating more noise at the airport. However, the aircraft retracts the flaps sooner and generates less noise further from the airport.

As part of our Noise Action Plan (2019-2023), LLAOL committed to conduct a review of the NADP procedures. The aim of the trial was to understand the difference in noise levels around the airport based on the NADP used.

LLA conducted a trial in August 2022, for a period of two months. Operators participating in the trial were asked to use each NADP procedure for a period of one-month. Noise and track data was collected by both fixed and portable noise monitors along the departing route. At the time of writing the analysis of this work is ongoing.

Airspace modernisation

London's Airspace is a particularly busy area and is in need of modernisation. The current airspace was designed in the 1960's for fewer aircraft and it has not been re-designed since, despite the increase in flights from all airports and advances in aircraft technological capabilities.

As part of a national airspace change programme, London Luton Airport is required to update all of its departure procedures in a move towards satellite based technology. LLA is using this opportunity to identify the most environmentally efficient way of managing our airspace with the main focus being on reducing the noise impact associated with aircraft operations.

Any proposed designs will look to replicate as closely as possible the routes being used today but we will also look at how we can move flights away from areas of population to reduce the noise in those communities.

London Luton Airport is currently in stage 3 of the CAP1616 process and progress can be monitored [here](#).



Airspace Development 6 (AD6)

In February 2022, a new arrivals airspace change was implemented. This was in order to separate Luton and Stansted arrivals by creating a new holding stack for arriving aircraft over Grafham Water on the North Bedfordshire, South Cambridgeshire border. At the time of writing this NAP, the airspace change is still in the Post Implementation Review stage (PIR). Progress can be monitored [here](#).

Single engine taxi (Ground noise procedures)

Aircraft ground noise can be generated by aircraft whilst on the ground during taxiing. We encourage all operators to taxi using just one engine, in order to reduce the noise for our communities closest to the airport.

Landing Charges

Noise generated during the night time is often perceived to be louder in the absence of other daytime background noise. In some cases it can also lead to sleep deprivation and sleep pattern disruption.

We encourage aircraft to operate during daytime hours through financial incentives. For example, for those operators which are required to pay the unvaried rates set out in our Charges and Conditions of Use, airline landing fees are increased during the night time period. From the 1st January 2023, LLA also added a surcharge into the Charges and Conditions of Use for non-chapter 14 aircraft to encourage the use of these aircraft at LLA for those operators which are required to pay the unvaried rates. Chapter 14 aircraft are considered the next generation of aircraft (Airbus NEO and Boeing Max). These charges are outlined in our Charges and Conditions of use, available to view on our website [here](#).

Quieter Aircraft

Quota Count

In line with other UK airports, LLA operates a Quota Count system during the night time period (23:30hrs – 06:00hrs). Aircraft operating at night are given a quota count rating determined from the aircraft manufacturer’s noise certification test results. Quieter aircraft have a lower quota count (QC) value, with some particularly quiet aircraft being exempt. The table below shows Quota Count noise classification.

Since 2018 aircraft movements with a QC value of greater than 1 have been excluded during the night time period unless under emergency circumstances.

| Noise Classification | Quota Count Value |
|------------------------|-------------------|
| Below 81 EPNdB1 | Exempt |
| 81-83.9 EPNdB | 0.125 |
| 84-86.9 EPNdB | 0.25 |
| 87-89.9 EPNdB | 0.5 |
| 90-92.9 EPNdB | 1 |
| 93-95.9 EPNdB | 2 |

In October 2015, a QC limit was implemented, restricting LLA to a night noise QC point limit of 3,500. The QC value therefore indicating points per corresponding aircraft movement (e.g. 1,750 QC2 movements, or 3,500 QC1 movements, or 7,000 QC0.5 movements). As part of the 2015 planning conditions the 3,500 night noise QC limit is to be reduced until it does not exceed 2,800 by 2028.

Operational Restrictions

Movement Limits

As part of our commitment to minimise disturbance during the night time period, we operate a rolling 12-month limit on the number of movements permitted to operate during the night time period (23:00hrs – 06:00hrs) and the early morning shoulder period (06:00hrs – 07:00hrs). These limits are listed in the table below.

| Time Period | Total number of movements permitted per 12 month period |
|--|---|
| Night time (23:30-06:00hrs) | 9,650 |
| Early Morning Shoulder Period (06:00-07:00hrs) | 7,000 |

Chapter 2 Aircraft

Chapters are a categorisation method for aircraft, based on their noise. It was introduced by ICAO in 1972 and has been developed through time as manufacturers reduce the noise of aircraft through new technologies. The exact categorisation is listed in ICAO Annex 16 Volume 1.

In line with the European Directive 2006/93 and Aeroplane Noise Regulations 1999, aircraft operating within the UK must be Chapter 3 or above. Aircraft hush-kitted or modified to Chapter 3 standards comply with this requirement. LLA operates in line with this requirement.

After maintenance, an aircraft’s engines must be tested before a flight is permitted. At LLA we have a certain area to conduct this testing a distance away from local properties. This area is only to be used during day-time periods, in order to reduce the night time noise disturbance. If an aircraft needs to conduct engine testing during the night time period, the operator must apply for the permission of LLA and this permission is only granted in exceptional circumstances.

Auxiliary Power Unit’s

An Auxiliary Power Unit (APU), is a device on an aircraft which provides energy on board the aircraft whilst not in the air. When an aircraft is running an APU, usually when boarding passengers, this can create additional noise. An alternative to using an APU is a Ground Power Unit (GPU) which provides the aircraft which power and uses less energy and is much quieter. At LLA we encourage operators to use GPU’s, in order to minimise the noise emitted from aircraft on the ground. Furthermore, we also restrict the length of time an APU is permitted to be used.

Land-Use Planning and Mitigation

Noise Insulation Scheme

Together with an independent noise analyst and the London Luton Airport Consultative Committee (LLACC) Noise Insulation Sub-Committee, we offer noise insulation to eligible properties.

The scheme covers some eligible residential and non-residential properties in Bedfordshire and Hertfordshire. Depending on any existing insulation in the property, double glazing, secondary glazing and ventilation units may be provided. Rooms eligible for insulation include living rooms, dining rooms, kitchen-diners and bedrooms. More information is available on our website [here](#).

Noise Contours

In the UK, noise measurements are evaluated using the average noise level during the day (a 16-hour day) during the summer period. The measure of noise is given in decibels (dB) and presented as noise contours.

This averaged decibel measurement ‘LAeq’, is the most common international measure of aircraft noise, it means ‘equivalent continuous noise level’. LLA’s current planning conditions refer to the 57dB LAeq (16 hour) as the area enclosed by this contour should not exceed 19.4 sq km for daytime noise. The planning conditions also state a limit on the area enclosed by the 48db LAeq 8hr (2300-0700) contour, this should not exceed 37.2 sq km for night time noise. However, should there be any changes to the planning permission (from the planning application to grow to 19mppa or the application for a development consent order to grow to 32mppa), it is likely that these contour limits will change.

Local Development Control

London Luton Airport works closely with local planning authorities to ensure that careful consideration is given to planning decisions in noise sensitive areas. LLACC also monitors wider development planning matters to discourage local planning authorities from permitting inappropriate development in noise sensitive areas.



Working with the Local Community and Industry Partners

Complaints Handling

LLA handles all aircraft noise complaints in accordance with its noise complaints policy located [here](#). General complaints information is available on the London Luton Airport website, including details of how complaints can be submitted to LLA. Complaint statistics are reported quarterly and annually to LLACC and trends are identified. The noise complaints handling system is kept under continual review to ensure the local community receives timely feedback in relation to concerns raised.

General information is available on the London Luton Airport website and complaints can be submitted through our online Flight Tracking system (TraV), email or telephone.

London Luton Airport Consultative Committee (LLACC)

LLACC is the formal mechanism for the airport to interact and exchange information with communities. Its membership includes representatives from local authorities, community groups, airport users and other interested parties. The Committee meets quarterly and is supported by the Noise and Track Sub Committee and Passenger Services Sub Committee. Both the Consultative Committee and sub-committee's are well attended, with current members listed in Appendix C.

The LLACC and its membership have assisted in the development of this Noise Action Plan and will play a full role in monitoring the implementation and effectiveness of the actions.

Flight Operations Committee (FLOPC)

The FLOPC is made up of operators at LLA, and discusses noise infringements, track keeping statistics, data from any ongoing trials and CDO compliance. The committee is focused on improving operations at LLA, whilst ensuring this minimises the noise to our local community.

Public Surgeries

LLA aims to hold approximately 6 Public Surgeries each year to provide an opportunity for local residents and councillors to meet with the Flight Operations team to personally answer any queries on airspace and aircraft noise.

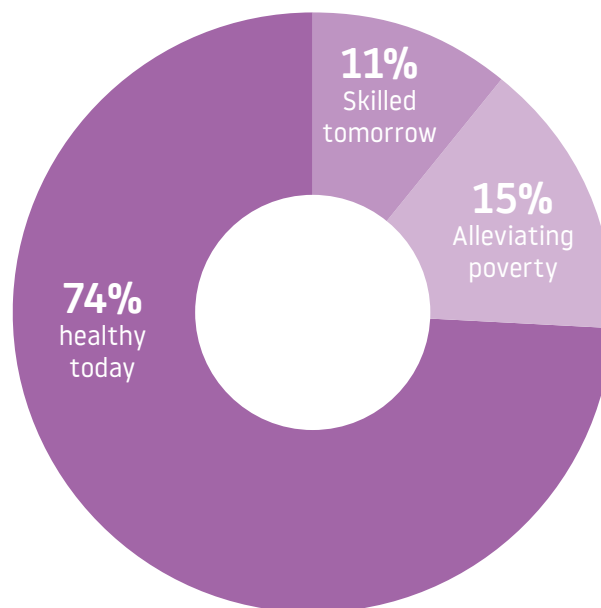
Community Updates - Inform

Inform is LLA's Flight Operations team newsletter to keep stakeholders and members of our local community up to date with the latest information, this is directly sent to all interested parties. All issues are also uploaded to our website [here](#).

Community Trust Fund

At London Luton Airport, we are proud to say that all of our Noise and Off-track charges are added to our Community Trust Fund. During 2021, £25,000 was transferred into the community trust fund from violations, this is in addition to the £150,000 the airport already commits each year.

Our Community Trust Fund allows communities to apply for grants between £250 to £10,000 to help fund or support projects and charities within the local area. The graph below shows the activities supported in 2021.



Sustainable Aviation

Sustainable Aviation is a UK aviation industry group, made up of UK airlines, manufacturers, airports and air-traffic control. LLA is part of the Noise Working Group and actively engages with this committee to limit and where possible reduce the impact of aviation noise.

Noise Mapping

Noise Mapping Results

For the purpose of the Noise Action Plan, the noise maps have been produced in terms of the five noise metrics (Lden, Lnight, LAeq, 16h, Lday, and Levening) for aircraft movements in 2021, as required by the Regulations. It should be noted that this year had suppressed movements due to the impact of the COVID-19 pandemic. The Noise Mapping data has been taken from the Airport Noise Action Planning Data Pack published by DEFRA. The Strategic Noise Maps can be found at Appendix B.

The shape of the contours are illustrative and show the noise from operations in the context of the local area. Due to the alignment of the runway, both South Luton (to the west of the airfield) and Breachwood Green (to the east of the airfield) are incorporated within the noise contours.

The 55 Lden contour extends slightly further to the east of the airport but does not reach the A1(M) at Stevenage to the east of the airport.

To the west of the airport, the contours show two distinctive spurs, the first is caused by the easterly arrivals path, in line with the runway, and includes parts of Caddington. The second spur is larger and stretches towards Pepperstock and Slip End caused by the initial turn in the main westerly departure corridor. The noise mapping results continue to indicate that no residential properties are located within the 69dB(A) LAeq 16h contour area.



Contour Population Results

The estimated total number of people and dwellings exposed above various noise levels from aircraft using London Luton Airport are shown in the tables below and on the following page.

In order to derive the statistics, analysis has been undertaken to count the population and number of dwellings within the specified noise contours. This assessment was carried out utilising a strategic residential population location dataset, provided by DEFRA.

Note: only LAEQ 16hr and LAEQ 8hr are used by LLA's planning conditions, the other contours listed here are different metrics and therefore cannot be compared directly.

Population and dwelling counts have been rounded as follows:

- The number of dwellings has been rounded to the nearest 50, except when the number of dwellings is greater than zero but less than 50, in which case the total has been shown as "< 50".
- The associated population has been rounded to the nearest 100, except when the associated population is greater than zero but less than 100, in which case the total has been shown as "< 100".

| L _{den} | 2006 | | 2011 | | 2016 | | 2021 | | |
|------------------|------------------|---------------------|------------------|---------------------|------------------|---------------------|------------------|---------------------|------------------|
| | Noise Level (dB) | Number of Dwellings | Number of People | Number of Dwellings | Number of People | Number of Dwellings | Number of People | Number of Dwellings | Number of People |
| ≥ 55 | | 3,800 | 8,600 | 6,450 | 14,300 | 8,250 | 17,000 | 4,850 | 10,800 |
| ≥ 60 | | 850 | 2,100 | 1,800 | 4,700 | 2,150 | 5,600 | 1,300 | 2,800 |
| ≥ 65 | | < 50 | 100 | 350 | 1,000 | 400 | 1,100 | <50 | <100 |
| ≥ 70 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ≥ 75 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Estimated total number of people and dwellings above various noise levels (L_{den}) between 2006 - 2021.

| L _{day} | 2006 | | 2011 | | 2016 | | 2021 | | |
|------------------|------------------|---------------------|------------------|---------------------|------------------|---------------------|------------------|---------------------|------------------|
| | Noise Level (dB) | Number of Dwellings | Number of People | Number of Dwellings | Number of People | Number of Dwellings | Number of People | Number of Dwellings | Number of People |
| ≥ 54 | | 2,800 | 6,500 | 5,050 | 11,300 | 6,000 | 13,200 | 3,150 | 7,200 |
| ≥ 57 | | 1,050 | 2,600 | 2,550 | 6,200 | 3,000 | 7,500 | 1,300 | 2,800 |
| ≥ 60 | | 450 | 1,100 | 950 | 2,500 | 1,050 | 2,800 | 300 | 700 |
| ≥ 63 | | < 50 | < 100 | 300 | 800 | 400 | 1,000 | <50 | < 100 |
| ≥ 66 | | < 50 | < 100 | < 50 | < 100 | <50 | < 100 | 0 | 0 |
| ≥ 69 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Estimated total number of people and dwellings above various noise levels (L_{day}) between 2006 - 2021.

| L_{evening} | 2006 | | 2011 | | 2016 | | 2021 | |
|----------------------|---------------------|------------------|---------------------|------------------|---------------------|------------------|---------------------|------------------|
| Noise Level (dB) | Number of Dwellings | Number of People | Number of Dwellings | Number of People | Number of Dwellings | Number of People | Number of Dwellings | Number of People |
| ≥ 54 | 1,900 | 4,500 | 2,950 | 7,000 | 4,600 | 10,800 | 2,350 | 5,400 |
| ≥ 57 | 800 | 1,900 | 1,150 | 3,000 | 2,050 | 5,300 | 900 | 2,000 |
| ≥ 60 | 250 | 600 | 450 | 1,200 | 750 | 2,000 | 100 | 200 |
| ≥ 63 | < 50 | < 100 | < 50 | < 100 | 150 | 400 | <50 | < 100 |
| ≥ 66 | < 50 | < 100 | 0 | 0 | < 50 | < 100 | 0 | 0 |
| ≥ 69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Estimated total number of people and dwellings above various noise levels (L_{evening}) between 2006 - 2021.

| $L_{\text{Aeq 16h}}$ | 2006 | | 2011 | | 2016 | | 2021 | |
|----------------------|---------------------|------------------|---------------------|------------------|---------------------|------------------|---------------------|------------------|
| Noise Level (dB) | Number of Dwellings | Number of People | Number of Dwellings | Number of People | Number of Dwellings | Number of People | Number of Dwellings | Number of People |
| ≥ 54 | 2,550 | 6,000 | 4,550 | 10,300 | 5,700 | 12,600 | 3,050 | 7,000 |
| ≥ 57 | 1,000 | 2,400 | 2,150 | 5,400 | 2,800 | 7,000 | 1,150 | 2,600 |
| ≥ 60 | 400 | 900 | 800 | 2,100 | 950 | 2,500 | 250 | 600 |
| ≥ 63 | < 50 | < 100 | 150 | 400 | 350 | 900 | <50 | < 100 |
| ≥ 66 | < 50 | < 100 | < 50 | < 100 | < 50 | < 100 | 0 | 0 |
| ≥ 69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Estimated total number of people and dwellings above various noise levels ($L_{\text{Aeq 16h}}$) between 2006 - 2021.

| L_{night} | 2006 | | 2011 | | 2016 | | 2021 | |
|--------------------|---------------------|------------------|---------------------|------------------|---------------------|------------------|---------------------|------------------|
| Noise Level (dB) | Number of Dwellings | Number of People | Number of Dwellings | Number of People | Number of Dwellings | Number of People | Number of Dwellings | Number of People |
| ≥ 48 | - | - | 5,000 | 11,400 | 5,300 | 11,800 | 3,950 | 8,900 |
| ≥ 51 | - | - | 2,400 | 6,000 | 2,300 | 5,900 | 1,750 | 4,000 |
| ≥ 54 | 2,450 | 5,800 | 900 | 2,400 | 850 | 2,220 | 550 | 1,300 |
| ≥ 57 | 950 | 2,300 | 300 | 900 | 200 | 600 | <50 | < 100 |
| ≥ 60 | 400 | 900 | < 50 | < 100 | < 50 | < 100 | 0 | 0 |
| ≥ 63 | < 50 | < 100 | 0 | 0 | 0 | 0 | 0 | 0 |
| ≥ 66 | < 50 | < 100 | 0 | 0 | 0 | 0 | | |

Estimated total number of people and dwellings above various noise levels (L_{night}) between 2006 - 2021.

LLA's Noise Action Plan



We will regularly review our operating procedures to seek to implement environmentally friendly procedures. Working with our partners at Sustainable Aviation we will challenge current operational procedures to seek continuous improvement.

During the drafting of the airport's first Noise Action Plan in 2009, London Luton Airport held a 16 week consultation exercise to seek the views of key stakeholders and the local community, from 28th September 2009 to 17th January 2010. During the consultation period representatives from London Luton Airport attended meetings with Planning and Environmental Health Officers from neighbouring local authorities and other key stakeholders and community groups on request.

According to guidance updated by DEFRA in September 2022, the airport involved LLACC and FLOPC members in a six week consultation from 10th May 2023 to 21st June 2023. In addition, LLA hosted a drop-in event providing an opportunity for any stakeholders to ask questions about the Noise Action Plan, this was held on the 23rd May 2023.

A schedule of all those individuals and organisations that were notified of the consultation in 2023 can be found in Appendix C.

A copy of the final Noise Action Plan (2024-2028) will be sent to key stakeholders and those who participated in the consultation process once it has been formally adopted by DEFRA. It will also be published on the airport community website [here](#).

London Luton Airport, through its Consultative Committee, remains committed to public engagement and communication with respect to noise management. This consultative approach will be sustained throughout the life of this Noise Action Plan.

Section 1: Operational Procedures

We will constantly review our operating procedures to ensure the most environmentally friendly procedures are in place, as part of this we will challenge best practice to provide continuous improvement. If more fundamental changes to airspace are required we will proactively engage with stakeholders, in line with CAP 1616, to effectively manage aircraft noise impacts.

| Ref: | Action | Impact | Timescale | Performance Indicator | Numbers Affected | Target |
|------|--|--------------------------------------|-----------|--|---|--|
| 1.1 | Reduce the Maximum Noise Violation Limits (NVL) for departing aircraft and review the charges to ensure it remains effective in seeking to reduce departure noise. | Departure Noise | 2025 | Reduction of NVL's. | Residents within and beyond 55dB L _{den} | Reduce NVL's to 79dB during the day time by 2026 and 78dB during the night time by 2025. |
| 1.2 | We will work with our airline partners to maintain performance relating to Continuous Descent Operations (CDO) to minimise the noise impact to the communities below. | Arrival Noise | Ongoing | CDO Compliance. | Residents within and beyond 55dB L _{den} | Maintain 95% compliance. |
| 1.3 | We will work with neighbouring airports, ACOG and stakeholders to submit an airspace change proposal as part of FASI-S, in line with the airspace modernisation strategy. | Departure and Arrival noise | 2028 | FASI-S airspace change proposal. | Residents within and beyond 55dB L _{den} | Submit FASI-S Airspace Change Proposal by 2025 / 2026 and implement by 2028 (subject to CAA approval). |
| 1.4 | We will aim to partner with a UK university to explore, through research, feasible ways in which noise can be reduced at Luton. | Arrivals, departure and ground noise | 2026 | Partnership with university. | Residents within and beyond 55dB L _{den} | Partner with university by 2027 and trial suggested changes based on research. |
| 1.5 | Continue to promote the arrivals and departures code of practice, working with our airline partners to review with feasible initiatives. | Arrivals, departure and ground noise | 2024-2028 | Minutes of Flight Operations committee (FLOPC) meetings. | Residents within 55dB L _{den} | To review the ACOP and DCOP bi-annually. |
| 1.6 | Continue to promote and encourage the use of single engine taxi procedures at London Luton Airport, through airfield points of engagement. | Ground Noise | Ongoing | Visual Monitoring on airfield. | Residents within and beyond 65dB L _{den} | Increase the number of Points of Engagement each year, with at least 80% of operators detailed in their SOP's. |
| 1.7 | We will work with our airline partners to promote and encourage the delayed landing gear deployment and explore ways to measure and automate reporting in relation to landing gear deployment. | Arrival Noise | Ongoing | Minutes of FLOPC meetings. | Residents within 55dB L _{den} | Deployment of landing gear monitoring system by the end of 2027 (if feasible). |
| 1.8 | Working with our partners at Sustainable Aviation we will challenge current operational procedures to ensure continuous improvement to best practice. | Departure/Arrival Noise | Ongoing | Minutes of Sustainable Aviation meetings. | Residents within and beyond 55dB L _{den} | To review procedures bi-annually in line with Sustainable Aviation best practice. |
| 1.9 | We will investigate the implementation of the low noise arrival metric (CAP 2302) at Luton and consider this in future airspace changes. | Arrival Noise | 2024 | Evidence of review. | Residents within and beyond 55dB L _{den} | To explore opportunities and make appropriate changes (if feasible). |
| 1.10 | We will work with our airline partners to improve performance relating to off track aircraft to minimise noise impacts to the communities below. | Departure Noise | Ongoing | Track keeping performance. | Residents within and beyond 55dB L _{den} | To achieve 99.8% compliance by 2025. |
| 1.11 | We will explore opportunities to increase the vectoring release altitude for each of the departing noise preferential routes (NPR's). | Departure Noise | 2024 | Evidence of review. | Residents within and beyond 55dB L _{den} | To review vectoring release altitudes by 2025 and implement changes by 2027. |
| 1.12 | We will survey operators to understand best practice relating to reducing noise and encourage continuous improvement. | Arrivals, departure and ground noise | 2025 | Evidence of survey. | Residents within and beyond 55dB L _{den} | To conduct a survey by 2026 and suggest best practice by 2027. |

Section 2: Quieter Aircraft

Modern aircraft are less noisy than previous generations, however as traffic continues to grow demand for air travel increases post pandemic, this reduction can often be counteracted by the number of aircraft overflying an area. At LLA we are encouraging operators to use the quietest aircraft practicable to the Luton operation particularly during early morning and night time periods.

| Ref: | Action | Impact | Timescale | Performance Indicator | Numbers Affected | Target |
|------|---|----------------------------------|-----------|--|---|---|
| 2.1 | We will work with our Airline Partners to achieve the voluntary phase out of aircraft that are Chapter 3 or below, to encourage the introduction of quieter aircraft. | Departure/ Arrival/ Ground Noise | 2027 | % of Chapter 4 aircraft. | Residents within and beyond 55dB L _{den} | 100% Chapter 4 aircraft by 2027 and 75% Chapter 14 aircraft by 2028. |
| 2.2 | We will continue review our landing charges annually and incentivise airlines to adopt the use of the quietest aircraft at London Luton Airport e.g. Airbus NEO, Boeing Max. | Departure/ Arrival/ Ground Noise | Ongoing | Publication of Charge's and Conditions of use. | Residents within and beyond 55dB L _{den} | Increase the number of Chapter 14 aircraft operating at LLA. |
| 2.3 | We will support our airlines partners to transition to next generation airline (after NEO's and MAX), through noise trials at LLA should these aircraft be operational in the lifetime of this Noise Action Plan. | Departure/ Arrival/ Ground Noise | 2028 | Trial of next generation aircraft at LLA. | Residents within and beyond 55dB L _{den} | To engage with operators and manufacturers to support transition to next generation aircraft. |
| 2.4 | We will continue to voluntarily ban QC2 aircraft during the night time period (2300hrs - 0700hrs). | Departure/ Arrival/ Ground Noise | Ongoing | Annual monitoring of night time QC usage. | Residents within and beyond 48dB L _{night} | To ensure no QC2 operations occur during the night time period. |

Section 3: Operational Restrictions

Restrictions should not be the first option when it comes to noise management however, we have a range of operating restrictions including movement limits and noise quota limits. Where restrictions are in place we are focused on ensuring that they are adhered to fully.

| Ref: | Action | Impact | Timescale | Performance Indicator | Numbers Affected | Target |
|------|---|-----------------------------------|-----------|--|---|--|
| 3.1 | We will operate within our consented night movement caps. | Night Noise | Ongoing | Annual monitoring of night time movements. | Residents within and beyond 48dB L _{night} | To operate within our consented limits. |
| 3.2 | We will review and reduce our annual night time QC in line with the consented limits. | Night Noise | Ongoing | Annual monitoring of night time movements. | Residents within and beyond 48dB L _{night} | To operate within our consented limits. |
| 3.3 | We will operate within our consented contour area limits. | Day and Night Noise | Ongoing | Annual monitoring of noise contours. | Residents within and beyond 48dB L _{night} | To operate within our consented limits. |
| 3.4 | To review LLA's noise contour reduction strategy and explore any new initiatives which could minimise the noise disturbance to local communities. | Arrivals/ Departure/ Ground Noise | Ongoing | Evidence of review. | Residents within and beyond 55dB L _{den} | To review LLA's noise contour reduction strategy and explore suitable new initiatives which could minimise the noise disturbance to local communities. |
| 3.5 | In order to minimise ground noise we will monitor and enforce restrictions around the use of Aircraft Auxiliary Power Unit's (APU). | Ground Noise | Ongoing | Number of points of engagement carried out. | Residents within 65dB L _{den} | Increase the number of points of engagement with operators each year regarding APU usage. |
| 3.6 | In order to minimise ground noise, particularly at night, we will restrict the permitted hours for engine testing to daytime periods only (07:00-23:00hrs). | Ground Noise | Ongoing | Log of engine testing. | Residents within 48dB L _{night} | Restrict engine testing for aircraft in the daytime period only, report annually any instances of testing during the night. |
| 3.7 | To review the visual reference points around Luton and the helicopter departure procedure. | Arrivals/ Departure/ Ground noise | 2026 | Reporting on a quarterly basis, helicopter complaint data. | Residents within 65dB | Minimise disturbance to communities who are overflown currently by helicopters. |

Section 4: Land-use Planning and Mitigation

Through communication with local council's we will continue to discourage developments that would increase the number of properties within noise sensitive areas around the airport. Furthermore, we will proactively review the Noise Insulation Scheme to ensure that it remains an effective means of noise mitigation.

| Ref: | Action | Impact | Timescale | Performance Indicator | Numbers Affected | Target |
|------|--|--------------------------------|-----------|---|---|---|
| 4.1 | We will install acoustic insulation in eligible properties as part of our residential and non-residential Noise Insulation schemes. | Ground/Departure/Arrival Noise | Ongoing | Noise Insulation Scheme update in annual reporting. | Residents within eligible noise contours. | Continue to insulate those properties which are eligible. |
| 4.2 | We will continue to carry out surveys to those property owners that have had insulation installed as part of the NIS, to measure the levels of satisfaction with the scheme. | Ground/Departure/Arrival Noise | Ongoing | Satisfaction survey results. | Residents within eligible noise contours. | Conduct annual survey of insulated properties. Report results of survey to Noise and Track Sub-Committee. |
| 4.3 | Through the Airspace Change Process we will ensure areas identified as 'Quiet Areas' are preserved as far as possible. 'Quiet Areas' will be defined and assessed as per government legislation. | Ground/Departure/Arrival Noise | Ongoing | Stages in CAP 1616 process. | Residents within and beyond 55dB L _{den} | Preserve quiet areas through Airspace Change Process as far as possible. |
| 4.4 | We will work with local authorities to raise awareness of the impacts of siting new developments that may be affected by aircraft noise. | Ground/Departure/Arrival Noise | Ongoing | Engagement with local authorities. | N/A | Increase awareness for local authorities through engagement. |
| 4.5 | We will develop an airport information pack to supply to local estate agents with information regarding LLA's operations. | Ground/Departure/Arrival Noise | 2026 | Information pack developed and circulated to local estate agents. | N/A | Information pack to be developed and circulated by 2027. |
| 4.6 | We will develop a vortex damage repair scheme to repair roofs that have been damaged by aircraft vortices (subject to eligibility criteria). | Arrival and Departure routes | 2024 | Evidence of scheme in place. | Residents within and beyond 55dB L _{den} | Develop vortex damage repair scheme by 2025. |
| 4.7 | We will conduct a review of the locations of our fixed noise monitoring terminals and increase or relocate where necessary. (Note. this action is dependent upon completion of Action 1.3 Airspace Modernisation). | Community relationship | 2028 | Evidence of review. | N/A | Conduct review by 2029. |

Section 5: Working with the Local Community and Industry Partners

In order to reduce the impact of noise we recognise the importance of working with our communities and industry partners to understand their concerns and ensure our actions address the issues.

| Ref: | Action | Impact | Timescale | Performance Indicator | Numbers Affected | Target |
|------|--|------------------------|-----------|--|------------------|---|
| 5.1 | Carry out biennial surveys of local communities to seek feedback on our approach to noise management and our complaints service for continual improvement and to offer the ability for local communities to help shape the future of noise controls. | Community relationship | Ongoing | Results of Survey. | N/A | Carry out survey by 2025 and set improvements in 2026. |
| 5.2 | We will improve communications through continuing our community newsletter (Inform) and reports. | Community relationship | Ongoing | Evidence of community newsletter and reports on website. | N/A | Publish newsletter quarterly. |
| 5.3 | We will engage with local stakeholders regarding the initiatives the Flight Operations team continue to work on. This includes Aircraft Noise and Airspace Modernisation. | Community relationship | Ongoing | Evidence in QMR. | N/A | Meet with at least 5 stakeholders per year. |
| 5.4 | We will regularly organise public surgeries in locations surrounding the airport for community members to visit and speak to airport employees about noise management. | Community relationship | Ongoing | Evidence in QMR and AMR. | N/A | Organise and attend at least 6 Public Surgery events each year. |
| 5.5 | We will log enquiries and complaints relating to airport operations in accordance with our noise complaints policy and publish complaint statistics in our QMR & AMR. | Community relationship | Ongoing | Evidence in QMR and AMR. | N/A | Regularly publish statistics in monitoring reports on quarterly and annual basis. |
| 5.6 | We will annually monitor the Noise Action Plan (NAP) actions with LLACC and where we recognise that further improvements can potentially be achieved; we will look to address it. | Community relationship | Ongoing | Evidence in AMR. | N/A | Publish NAP update in the AMR annually. |
| 5.7 | We will give the public access to our online noise and track monitoring system and work with the supplier to enhance future functionality. | Community relationship | Ongoing | Evidence of flight tracking website. | N/A | Maintain and enhance functionality of flight tracking website. |
| 5.8 | We will divert all money raised from noise and track violations charge schemes into the Community Trust Fund (CTF). | Community relationship | Ongoing | Evidence in annual Community Strategy and AMR. | N/A | Annually publish the amount of money diverted to the CTF. |

| Ref: | Action | Impact | Timescale | Performance Indicator | Numbers Affected | Target |
|------|--|-------------------------------------|-----------|--|------------------|---|
| 5.9 | We will produce and publish Quarterly Monitoring reports to inform Stakeholders of performance trends and noise management at London Luton Airport. | Community relationship | Ongoing | QMR published on website. | N/A | Publish reports on our website at earliest opportunity each quarter. |
| 5.10 | We will arrange biennial Airspace and Noise engagement week in partnership with NATS, ACOG and our airlines for our local stakeholders. | Community relationship | 2024 | Evidence in AMR. | N/A | To complete and host the Noise and Airspace week in biannually. |
| 5.11 | We will continue to produce and publish an annual report to inform stakeholders of performance trends and noise management at London Luton Airport. | Community relationship | Ongoing | Evidence of Noise and Airspace week. | N/A | Publish annual report on our website by 31st July each year. |
| 5.12 | We will engage proactively with LLACC and NTSC to identify initiatives which will help minimise noise in our local community. | Community relationship | Ongoing | Minutes of Meetings. | N/A | Meet with LLACC and NTSC every 3 months. |
| 5.13 | We will collaborate with our Flight Operations Committee (FLOPC) to determine new initiatives to reduce noise. | Community relationship | Ongoing | Minutes of FLOPC meetings. | N/A | Engage proactively with FLOPC at meetings held twice a year. |
| 5.14 | We will regularly organise and attend a pop up public engagement session in locations surrounding the airport for community members to visit and speak to airport employees about noise management. | Community relationship | Ongoing | Reporting of quarterly engagement. | N/A | Organise and attend at least 2 pop up public events each year. |
| 5.15 | In conjunction with our airline partners and sustainability team we will consider introducing an operator league table which will rank their overall performance in their environmental and noise performance. | Community and Operator relationship | 2026 | Evidence of public league table. | N/A | Create and publish the airline league table by 2027. |
| 5.16 | We will seek to investigate a method to communicate with the public which would supply live information should there be abnormal operations (for example a blog or chatbot). | Community relationship | 2027 | Evidence of an active live communication tool. | N/A | Investigate and implement a live information tool by 2028. |
| 5.17 | We will continue to publish annually a Noise Monitoring Schedule (both portable and handheld noise monitors) and publish community noise reports within 3 months of the monitoring period ending. | Community relationship | Ongoing | Publication of schedules and community noise reports. | N/A | Publish community noise reports within 3 months of the monitoring period ending. |
| 5.18 | We will investigate how we can use google earth to share our key noise information e.g. noise contours, noise insulation eligibility and noise preferential routes (NPR's). | Community relationship | 2028 | Evidence of LLA information available on google earth. | N/A | To have LLA airport information available on google earth by 2028. |
| 5.19 | We will reduce the target complaint response time from 8 working days to 6 working days. | Community relationship | 2024 | Reporting on a quarterly basis. | N/A | Change the agreed target response time within the complaints policy and re-publish. |
| 5.20 | To undertake a study to understand if noise barriers would be beneficial on the LLA site and to understand the numbers of people that could be benefited. | Community relationship | 2027 | Evidence in study. | N/A | To complete a review of noise barriers at Luton. |

Evaluating the Noise Action Plan

LLA is committed to working openly with the local community in order to balance the benefits of a successful airport, while minimising the impact of aircraft noise.

We want to ensure that we are always transparent when reporting progress on our Noise Action Plan, so we will publish our progress against our targets within our Annual Sustainability Report. This report is currently presented to our consultative committee and published on our website - this will continue.

During the 5-year period of the Noise Action Plan, it may be necessary to add or amend the actions to enable effective management and continuous improvement of our aircraft noise impacts. Occasionally we may also set annual targets after discussion with our London Luton Airport Consultative Committee



Conclusion

This Noise Action Plan has been produced with regard to The Environmental Noise Directive (which was previously the European Noise Directive) and the DEFRA guidance and builds on London Luton Airport's established approach to noise management.

It includes 51 actions that will further improve noise management at London Luton Airport, representing a robust and acceptable approach to addressing noise matters. A large proportion of these measures are voluntary in nature, demonstrating our commitment to take a proactive approach to noise management and seek to minimise the adverse effects of our operations.

The strategy includes a range of instruments, including operational controls, financial penalties and mitigation, where appropriate. It highlights the need to monitor our operations carefully and to report this information transparently and in a way it can be easily understood. It also stresses our commitment to engage in an open and honest way.

In line with The Environmental Noise (England) Regulations 2006 and associated regulations, we will formally review our Noise Action Plan every five years. This will follow the Environmental Noise regulations five year cycle starting from 2024 - 2028. We are however committed to continue to review and deliver improvements where possible and necessary. The successful delivery of this Noise Action Plan requires the cooperation and support of our air traffic control provider, NATS, airlines and other operators. However, it also requires support from the local community and other key stakeholders, to ensure that noise management is considered in the context of the ICAO Balanced Approach.

We will continue to listen and engage. With the support of LLACC, we will seek to deliver improvements in the noise performance at London Luton Airport whilst maximising the wider benefits that a major international airport can bring to the local region.



Appendix A

Glossary of Terms

| | |
|---------------------|--|
| ACOP | Arrivals Code of Practice |
| AIP | Aeronautical Information Publication |
| AMR | Annual Monitoring Report |
| APU | Auxiliary Power Unit. A power unit located on the aircraft. |
| ATC | Air Traffic Control |
| CAA | Civil Aviation Authority |
| CDO | Continuous Descent Operation |
| dB (A) | A unit of sound pressure level, adjusted in accordance with the A weighting scale, which takes into account the increased sensitivity of the human ear at some frequencies. |
| DCOP | Departures Code of Practice |
| Decibel (dB) | The unit used to measure noise (typically 70dB is equivalent to a normal conversation level). |
| DEFRA | Department for Environment Food and Rural Affairs |
| DfT | Department for Transport |
| END | Environment Noise Directive |
| EPNdB | Effective Perceived Noise Decibels. It refers to the metric 'EPNL' (Effective Perceived Noise Level) which is used for noise certification and takes account of tones and duration. |
| FLOPC | Flight Operations Committee |
| FASI-S | Future Airspace Strategy Implementation - South |
| GPU | Ground Power Unit. A power unit located on the ground. |
| ICAO | International Civil Aviation Organisation |
| ILS | Instrument Landing System |
| LAeq, 16hr | The A-weighted average sound level over the 16 hour period of 07:00 – 23:00 |
| Lday | The A-weighted average sound level over the 12 hour day period of 0700 - 1900 hours. |
| Lden | The day, evening, night level. It is a logarithmic composite of the Lday, Levening, and Lnight levels but with 5 dB(A) being added to the Levening value and 10 dB(A) being added to the Lnight value. |
| Leq | Equivalent sound level of aircraft noise in dBA, often called equivalent continuous sound level. For conventional historical contours this is based on the daily average movements that take place in the 16 hour period (0700- 2300 LT) during the 92 day period 16 June to 15 September inclusive. |
| Levening | The A-weighted average sound level over the 4 hour evening period of 1900 - 2300 hours |
| LLACC | London Luton Airport Consultative Committee |
| Lmax | The maximum noise level from a single aircraft passing. |
| LPA | Local Planning Authority |
| Lnight | The A-weighted average sound level over the 8 hour night period of 2300 - 0700 hours. |

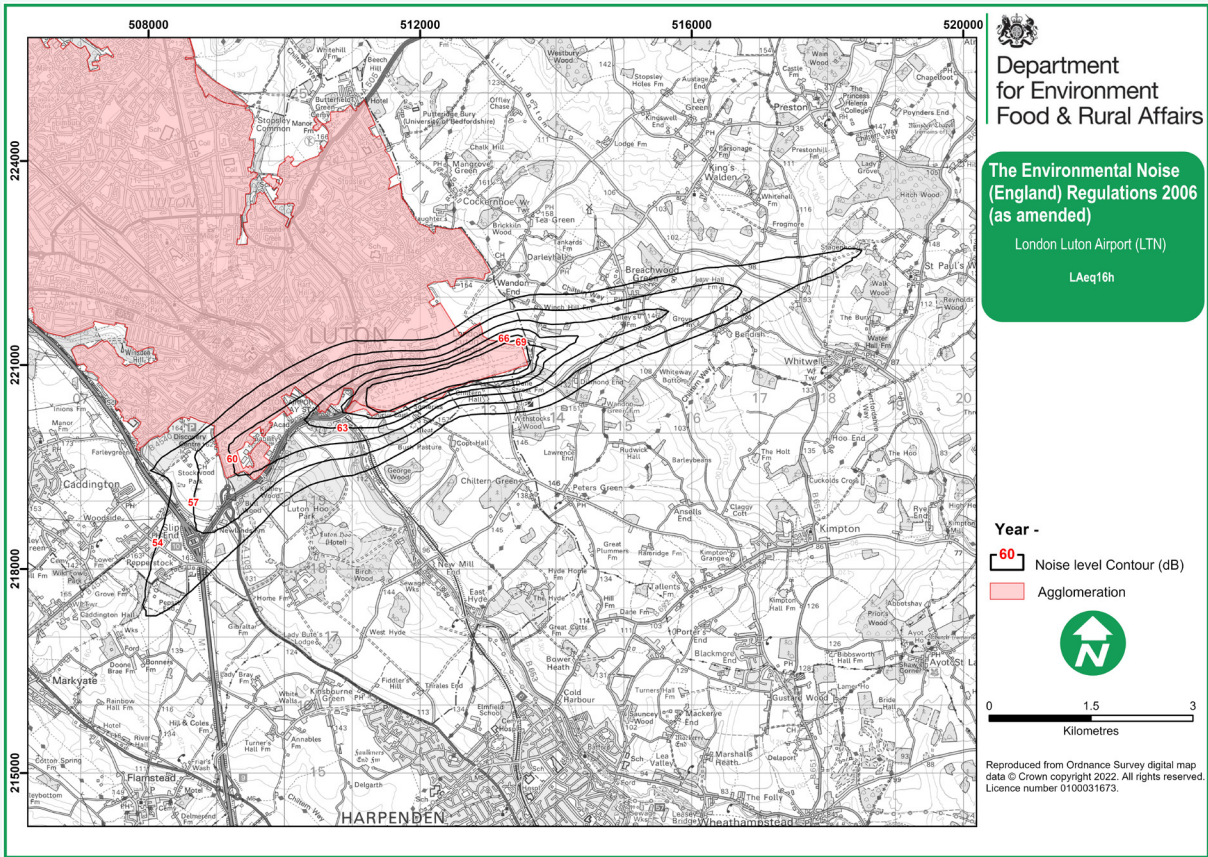
Appendix A (continued)

| | |
|-----------------------------|--|
| MPPA | Million passengers per annum |
| NATS | Formerly known as National Air Traffic Services Ltd. NATS provides en-route air traffic control for the UK, including local air traffic services at Luton |
| NADP | Noise abatement departure procedure |
| NIS | Noise Insulation Scheme |
| Noise Contour | Map contour line indicating noise exposure in dB for the area that it encloses |
| NTSC | London Luton Airport's Noise and Track Sub-Committee |
| NPR | Noise Preferential Route |
| QC | Quota Count |
| QMR | Quarterly Monitoring Report |
| SEL | Sound Exposure Level. The level generated by a single aircraft at the monitoring point. This normalised to a 1 second burst of sound and takes account of the duration of the sound as well as its intensity |
| SID | Standard Instrument Departure, the published route that an aircraft must follow on departure |
| SOP's | Standard Operating Procedures |
| SoS | Secretary of State |
| Sustainable Aviation | A UK aviation industry initiative aiming to set out a long term strategy for the industry to address sustainability issues |

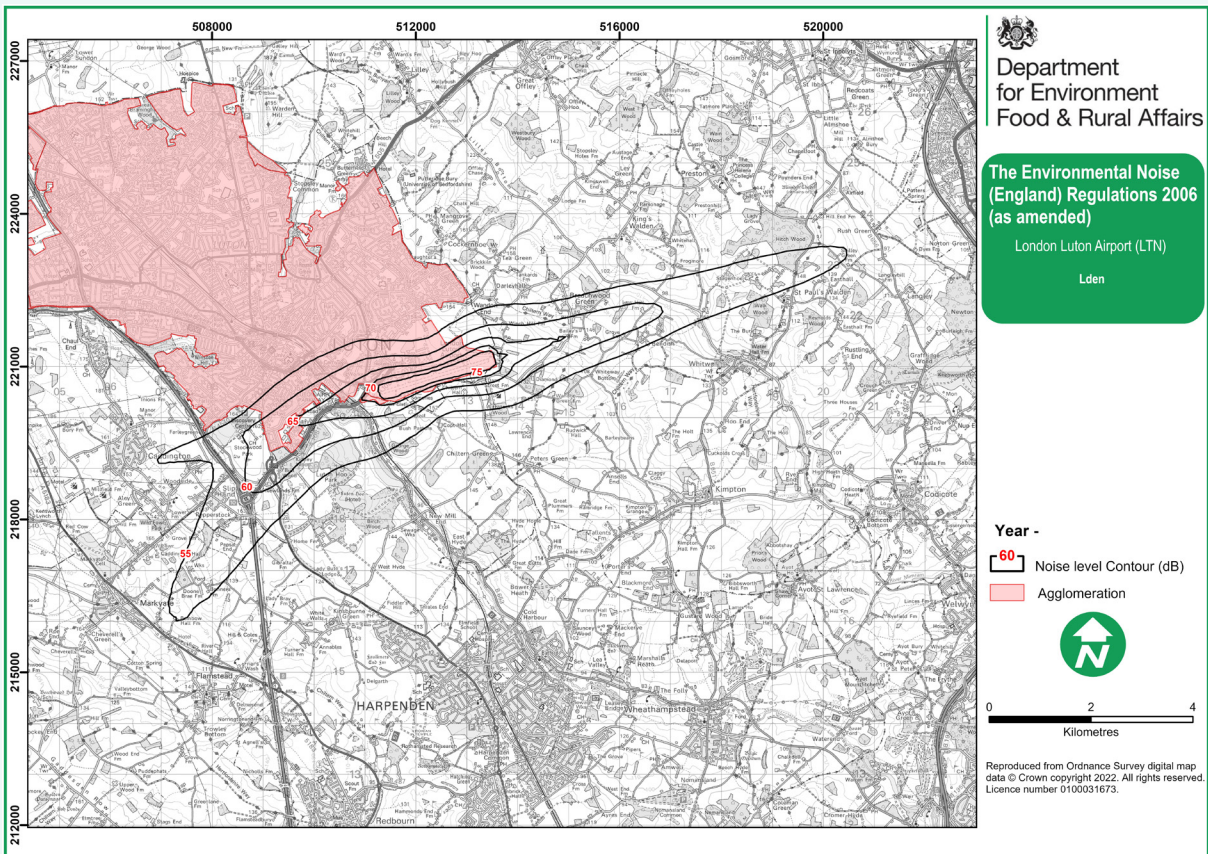


Appendix B

Noise Map - LAeq (16hr)

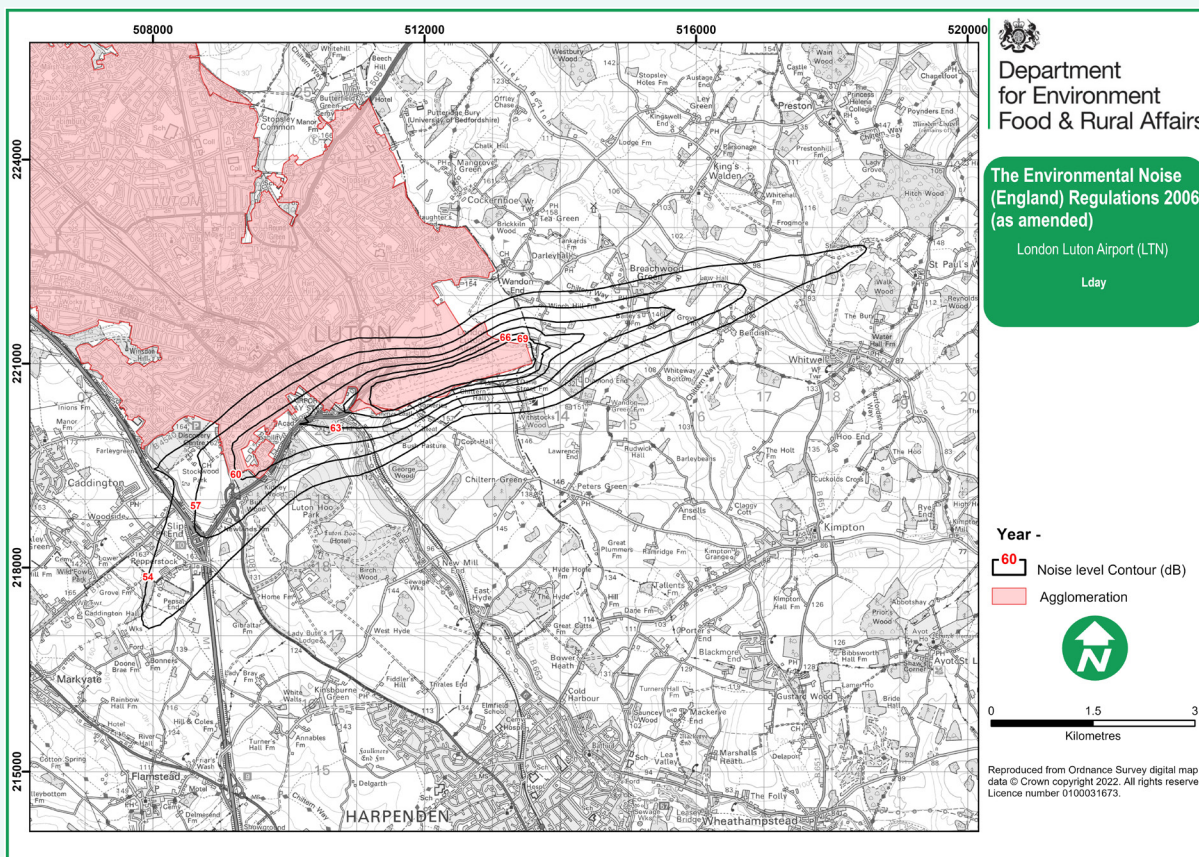


Noise Map - Lden

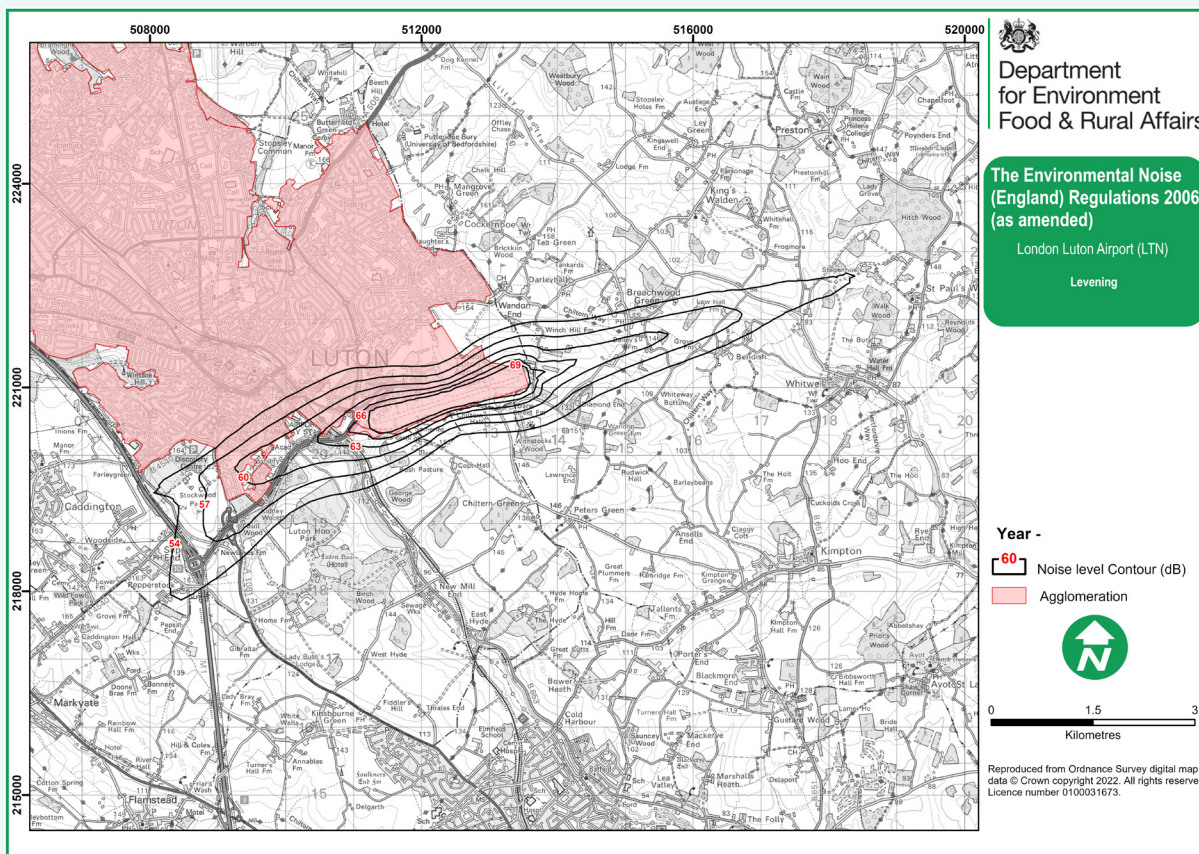


Appendix B (continued)

Noise Map - Lday

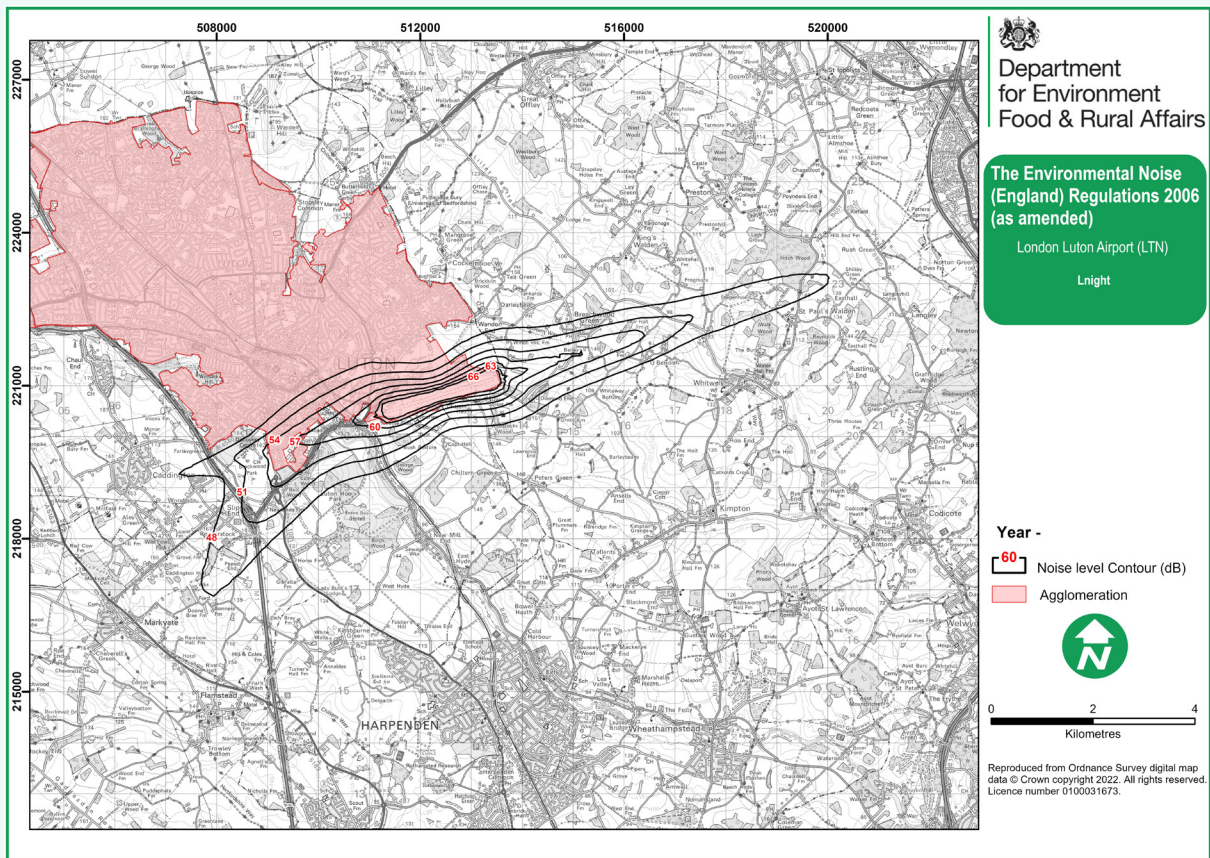


Noise Map - Levening



Appendix B (continued)

Noise Map - Night



Appendix C

Key Stakeholders

London Luton Airport held two consultation periods to seek the views of key stakeholders. The following were organisations were notified of the consultations.

London Luton Airport Consultative Committee (LLACC)

| |
|--|
| LLACC Independent Chairman |
| Buckinghamshire Council |
| Bedfordshire & Luton Chamber of Commerce |
| Bedfordshire Association of Town and Parish Councils |
| British Business General Aviation Operators |
| Buckinghamshire & Milton Keynes Association of Local Councils |
| Central Bedfordshire Council |
| Dacorum Borough Council |
| easyJet Airline Company Limited |
| Freight Airline Representative |
| Hertfordshire Association of Town & Parish Councils |
| Hertfordshire County Council |
| Huntingdonshire District Council |
| Kings Walden Parish Council |
| London Luton Airport Trade Union |
| Luton and District Association for the Control of Aircraft Noise (LADACAN) |
| Luton Council |
| NATS – London Luton Air Traffic Control |
| North Hertfordshire District Council |
| Passenger airline representative |
| People Against Aircraft Intrusive Noise (PAIN) |
| St Albans City & District Council |
| St Albans Quieter Skies |
| Stop Luton Airport Expansion (SLAE) |
| Stevenage Borough Council |

London Luton Airport Flight Operations Committee (FLOPC)

| |
|---------------------------|
| Wizz Air |
| easyJet |
| Ryanair |
| London Executive Aviation |
| TUI |
| Harrods Aviation |
| Signature Aviation |
| NetJets |
| VistaJet |
| DHL |
| BALPA |
| NATS (Swanwick) |
| Lux Aviation |
| MNG Airlines |
| El Al Airlines |
| Saxon Air |
| Air Charter Scotland |

Other interested parties

| |
|---|
| Luton Rising |
| HarpendenSky |
| Chiltern Conservation Board |
| Reject Luton Airport Stacking (RELAS) |
| Community Alternatives to Luton's Flightpath (CALF) |
| Against Luton Airport Stacking |
| South Cambridgeshire District Council |
| East Herts District Council |
| Harpenden Society |



Appendix D

Consultation

In line with the requirements for Noise Action Plans, as set out in DEFRA's Guidance for Airport Operators to produce airport noise action plans under the terms of the Environmental Noise (England) Regulations 2006 (as amended), the information contained in this appendix provides a summary of the consultation responses received from 10th May 2023 to 2nd July 2023.

For the consultation period 16 responses were received from the consultees the Noise Action Plan was sent to and 3 representatives attended the consultation event in person. For these responses a summary of the common themes are detailed in the table. 3 representatives did not want their comments or responses shared.

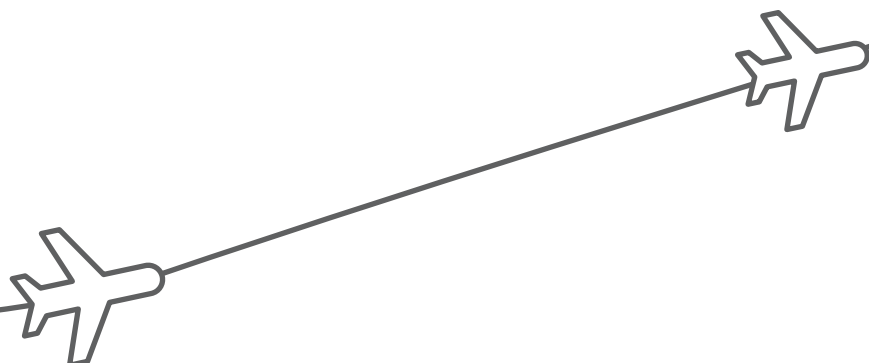
We received a further 43 responses from residents that were not listed in the Key Stakeholders, all of these responses concerned a recent airspace change at LLA for arriving aircraft. These comments were regarding further changes to the airspace and therefore would be considered in Action 1.3 through future airspace change engagement. These comments have not led to changes in this version of the Noise Action Plan.

On the following page, LLA has listed the comments and any changes made to the Draft Noise Action Plan. Please note that this is not an exhaustive list of all responses received, but all responses were considered and incorporated where possible.

Consultation Questions

Below are the questions used during the draft Noise Action Plan consultation. The responses we receive will be used to influence the detail of the final action plan.

- 1. Do you think the draft Noise Action Plan will help to strike the right balance between minimising the impact of aircraft noise whilst making best use of the positive social and economic benefits of a successful airport?** [Yes/No](#) [Comments](#)
- 2. To what extent do you think that the draft noise action plan provides a suitable framework to manage aircraft noise?** [Excellent - Above Average - Average - Below Average - Very Poor](#)
- 3. To what extent do you believe that LLA's draft Noise Action Plan meets the requirements of The Noise Action Plan Guidance?** [Excellent - Above Average - Average - Below Average - Very Poor](#)
- 4. Do you think there are any additional actions that LLA should be including in the Noise Action Plan?** [Yes/No](#).
[If yes, examples:](#)
- 5. The draft noise action plan proposes to review the progress of the actions annually as part of the Sustainability report. To what extent do you think that this is sufficient?** [Extremely - Very - Moderately - Slightly - Not at all](#)
- 6. Do you have any further comments on the London Luton Airport Draft Noise Action Plan?** [Comments](#)
- 7. Are you happy to have your details recorded/reported?** [Yes/No](#)



Summary of Consultation Responses

| Description of comments received | London Luton Airport Response | Changes to the NAP |
|--|--|--------------------|
| A request to work with helicopter operators to avoid overflying communities. | This has been added as an action within the NAP. | Y |
| Request to redefine CDO definition at Luton to be in line with CAA definition. | LLA's current definition of CDA begins at 5,000ft whereas the CAA definition starts at 6,000ft. Due to the airspace structure LLA has a period of level flight at 5,000ft with other airport routes overhead, restricting the ability for CDA from this altitude. Therefore LLA is not proposing to take this forward as an action. However, this can be considered with the Noise and Track Sub-Committee after Action 1.3 is complete and the airspace structure for London has changed. | N |
| Many comments received were around night time operations, for example rescheduling aircraft from night to day and also removing those slots from airlines which consistently arrive during the night time and are scheduled during the day. | LLA must work within the International Airport Slot Guidelines, and we cannot ask operators with historical rights to slots to change these operations outside of the night time period. However, we are aware that delays can cause aircraft to move from daytime into night time, often at no fault of the operator (for example thunderstorms or ATC strikes). We engage with operators regularly regarding delay and have also explored the option of implementing a curfew during the 92-day summer period to keep this to a minimum. We have not added an action based on this feedback. | N |
| Many respondents provided comments about the content of the Noise Action Plan which was considered irrelevant by consultees. These requests included removal of the 'LLA's contribution to the local economy' and also questioning why 2021 noise contours were used when the COVID pandemic reduced aircraft movements. | LLA works within the guidance provided by DEFRA, there are requirements of sections to be included in a NAP, which includes information about LLA. LLA does not propose to remove the section titled 'LLA's contribution to the local economy'. The noise contours are also based on 2021, as this was the required mapping year for this round of the NAP. This is conducted every 5 years and only DEFRA mapping results are provided in the NAP (2006, 2011, 2016, 2021). Annual contours are produced by LLA and can be found in the Annual Monitoring Report and from 2022 onwards, the Sustainability Report. | N |
| A request to set targets for reduction of late arrivals at end of day and work with airlines to achieve punctual late evening arrivals with regular reporting against targets, similar to CDO. | LLA's airside team already work with airlines and handling agents to improve delay experienced at LLA. However there are many reasons an aircraft could be delayed, such as thunderstorm activity, ATC strikes and events at other airports. LLA are happy to provide more visibility to NTSC members regarding this, if required, but we are not proposing to add this as a target in the NAP. | N |
| Many responses commented on LLA's Noise Insulation Scheme. The main comments received were requests to widen the scheme to increase the number of properties eligible and to conduct an independent review of the scheme. | LLA is not proposing any changes to the current Noise Insulation Scheme, although the scheme is likely to change if an increase in passenger numbers receives approval. LLA currently still have a number of properties to insulate in the current scheme and would not be looking to increase the area at this time. The scheme reports to the independent Noise Insulation Sub-committee, which is part of LLACC. Therefore LLA do not believe an separate review is needed at this time. Action 4.1 in the NAP refers to the Noise Insulation Scheme and LLA's commitment to insulate the eligible properties. | N |
| Many respondents, asked why are the contours provided in the NAP were different to those used reported by LLA in reference to its planning conditions. | LLA is not proposing any changes to the current noise insulation scheme, as these are specified within our planning conditions. Although, these are reported in the NAP, there are additional metrics such as LDEN, LDAY and LEVENING which are different time periods and therefore not comparable to LLA's planning conditions. We have clarified this on Page 20 of the NAP. | Y |

| Description of comments received | London Luton Airport Response | Changes to the NAP |
|--|---|--------------------|
| A request to increase the number of ground noise measures within the action plan. | An additional action within the NAP has been added 'To undertake a study to understand if noise barriers would be beneficial on the LLA site and to understand the numbers of people that could be benefited.' | Y |
| A request to reduce number of go-arounds at LLA. | LLA are working with NTSC regarding the number of go-arounds at LLA, although it is important to note that there are no more go-arounds per movement at LLA when compared other UK airports. Go-arounds are a standard safety procedure and only occur when necessary for safety. LLA is not proposing to add an action based on this feedback. | N |
| A request to change waypoint the on first turn on westerly operations, as this is currently at altitude rather than a fixed point. | LLA is aware of the issue some operators face with the first waypoint being at an altitude rather than a fixed point. However, this must be addressed through an airspace change proposal, and is being worked on through FASI-S (already action 1.3). | N |
| A request to see Action 3.2 (QC limits) from previous NAP reinstated in this version. | The previous action was to remain within the consented QC limits. Action 3.2 has a target to remain within the consented limits, but goes further to minimise noise than the previous action as it commits to reduce in line with consent. LLA is not proposing to reinstate this action. | N |
| A request to see the NAP, transitioned to the planning conditions of LLA. | The planning process determines the planning conditions, and the NAP is by operator. We are not proposing to transition the NAP actions across to the planning conditions. | N |
| Generic comments were received from many respondents regarding the targets not being ambitious enough and not being SMART (Specific, Measurable, Achievable, Realistic and Timebound). Other respondents felt there were too many targets and there should be less but more effective. | LLA believe the targets are challenging but can be achieved over the 5 year period. Each target has an associated timescale and a performance indicator. LLA also feels that there is the right amount of actions, and is not proposing to reduce actions at this stage. | N |
| A request to review the NAP every 6 months instead of annually. | LLA reports on the progress of the NAP annually as part of the Annual Monitoring Report and more recently the Annual Sustainability Report. Many of the metrics, such as QC, movements and trials are also reported quarterly to NTSC and within quarterly monitoring reports. LLA believes the current monitoring is acceptable and is not proposing to review the specific NAP targets each 6 months. | N |
| A request to add an action to preserve quiet areas. | LLA is committed to preserve quiet areas through the airspace change process. This is already addressed in Action 4.3. | N |
| A number of generic requests to be more collaborative with NATS, operators of LLA and NTSC were received. For NTSC, specific engagement was requested on targets such as partnering with a university, Sustainable Aviation work and designing community surveys. | LLA is committed to collaborate with all stakeholders as part of its NAP. This includes operators, NATS and NTSC. All of these groups were asked to comment on the NAP and have been involved through its development. | N |
| A request to add financial information for each target based on the cost of achieving. | It is not mandatory for a NAP to contain financial information on the cost of each target, and LLA considers this to be commercially sensitive data. This has not been included in the plan and LLA is not proposing to add this data. Some financial information is available in Appendix F of the plan. | N |
| Request for an action which addresses LLA's Noise Contour Reduction Strategy by 2028. | This is already addressed as action 3.4 within the NAP. | N |

Appendix E

Financial Information

London Luton Airport has estimated the annual financial spend on noise management activities, this is detailed below.

| Activity | Estimated Cost (£) |
|--|--------------------|
| Staff Costs | £275,000 |
| Equipment (including maintenance and licences) | £200,000 |
| Consultancy | £100,000 |
| Noise Insulation Scheme | £700,000 |
| Community Trust Fund | £175,000 |



Appendix F

Planning Conditions relating to noise

Below are the current planning conditions relating to noise from the 2017 permission, please note if a new planning application is granted approval (e.g. for 19 million passengers per annum or 32 million passengers per annum these conditions are likely to change.)

8. At no time shall the commercial passenger throughput of the airport exceed 18 million passengers in any twelve month period. From the date of this permission the applicant shall every quarter report in writing to the Local Planning Authority the moving annual total numbers of passengers through the airport (arrivals plus departures). The report shall be made no later than 28 days after the end of each quarter to which the data relates.

9 The development shall be operated in accordance with the Noise Control Scheme approved on 2 March 2015 (ref: 14/01519/DOC).

For the avoidance of doubt the controls within that scheme include:

- i) Measures with the purpose of phasing out of night time (2300 to 0700) operations by aircraft with a QC value of greater than 1 on either departure or arrival.
- ii) Monitoring and review of the scheme not later than the 1st and 4th year after its introduction and every subsequent five years.
- iii) Limits during the night time period (2330 to 0600) of:
 - a) Total annual movements by aircraft (per 12 month period) of no more than 9,650 movements; and
 - b) Total annual noise quota movements of no more than 3,500 which, using all reasonable endeavours, shall be reduced at each review until it reaches a point where it does not exceed 2,800 by 2028.
- iv) Limits for the Early Morning Shoulder Period (0600 to 0700) of not more than 7,000 movements in any 12 month period.
- v) Reporting of the actual and forecast total number of aircraft movements for the preceding and next 12 months to the Local Planning Authority every three months.
- vi) Within six months of the commencement of the development, a progressive reduction in the night time (2300-0700) maximum Noise Violation Limits (NVL) by the noisiest aircraft shall be implemented, as follows:
 - o 80dB(A) the date here of
 - o 79dB(A) from 1st January 2020
 - o 77dB(A) from 1st January 2028

vii) Within six months of the commencement of the development, a progressive reduction in the daytime (0700 - 2300) maximum NVL by the noisiest aircraft shall be implemented, as follows:

- o 82 dB(A) the date hereof
- o 80 dB(A) from 1st January 2020

10 The development shall be operated in accordance with the Noise report approved on 2 March 2015 (ref: 14/01519/DOC), including providing details of forecast aircraft movements and consequential noise contours as set out in that report.

The area enclosed by the 57dB(A) Leq16hr (0700-2300) contour shall not exceed 19.4 sq km for daytime noise, and the area enclosed by the 48dB(A) Leq8hr (2300-0700) contour shall not exceed 37.2 sq km for night time noise, when calculated by the Federal Aviation Authority Integrated Noise Model version 7.0-d (or as may be updated or amended).

Within five years of the commencement of development a strategy shall be submitted to the Local Planning Authority for their approval which defines the methods to be used by LLAOL or any successor or airport operator to reduce the area of the noise contours by 2028 for daytime noise to 15.2sq km for the area exposed to 57dB(A) Leq16hr (0700-2300) and above and for night time noise to 31.6 sq km for the area exposed to 48dB(A) Leq8hr (2300-0700) and above.

11 The development shall be operated in accordance with the Noise Control Monitoring Scheme as approved on 2 March 2015 (ref: 14/01519/DOC).

For the avoidance of doubt the controls include:

- i) Fixed noise monitoring terminals and track keeping system (vertical and horizontal)
- ii) Complaint handling system
- iii) Sanctions to be imposed on infringement by aircraft in respect of track keeping and noise violation limits in accordance with condition 9 (parts vi and vii) of this permission
- iv) Arrangements for the verification of the submitted information

A review shall take place not later than the 1st and 4th year after introduction and every subsequent 5 years.

12 The development shall be operated in accordance with the scheme to control ground noise approved on 2 March 2015 (ref: 14/01519/DOC).

