

David Feeney and Carol Cunningham  
Planning Services  
Leeds City Council  
10th Floor West  
Merrion House  
Leeds  
LS2 8BB

20 July 2020

Dear Mr Feeney and Ms Cunningham

## **Objection to Planning Application 20/02559/FU**

This is an objection made by Group for Action on Leeds Bradford Airport (GALBA) to planning application 20/02559/FU, by Leeds Bradford Airport (LBA) for demolition of existing passenger pier, construction of a new terminal building, passenger piers and associated infrastructure, construction of new vehicular access and modifications to flight time controls to extend the daytime flight period. GALBA is a group of concerned citizens of the wider Leeds/Bradford area. We come from a range of backgrounds, and from across the political spectrum. The Committee members all live in Leeds.<sup>1</sup>

GALBA's objection, in short, is that the application does not comply with the development plan, in particular policy SP12, because the proposal will have unacceptable adverse environmental impacts (in particular greenhouse gas impacts) and local impacts (in particular, climate change, the resultant negative impacts on people and communities from that change, public health impacts and other impacts arising from noise, traffic etc). Material considerations under the National Planning Policy Framework (NPPF) also weigh against planning permission being granted – in particular the proposed development does not comply with paragraph 148 because it fails to contribute to radical reductions in greenhouse gas (GHG) emissions. The claimed economic benefits of the development have been overstated and are not a sufficiently strong material consideration to overcome the lack of compliance with the development plan.

---

<sup>1</sup> For more on GALBA see <https://www.galba.uk/about-us>.

GALBA also objects because of serious flaws in the Environmental Statement (ES), which mean that it would actually amount to an error of law for the Council to consider LBA's application on the basis of the current ES.

GALBA's objection covers the following topics:

1. Legal flaw in the Environmental Statement;
2. Application effectively for increased passenger numbers;
3. Greenhouse gas (GHG) impact and climate change;
4. Noise impact (and see Appendix 1 to this objection);
5. Surface access and local transport impact;
6. Public health impact;
7. Overall impacts on the local community – human rights obligations;
8. Overestimation of economic benefit;
9. The “fallback” position;
10. Lack of compliance with the Development Plan;
11. Overall Planning Balance.

GALBA has focused its objection on these areas, in order to make it manageable and to be of most assistance to the planning officers and members of the Plans Panel. This means we have not been able to include in this objection all of the concerns that the local community has, and will raise, about the proposed development. We nevertheless support those concerns and urge the Council to take them into account.

#### 1. Legal Flaw in the Environmental Statement

On 15 June 2020, GALBA's barrister wrote an urgent legal letter to you, alerting the Council to a serious legal error. The key assumption on which the ES is based is a predicted growth in passenger numbers, but evidence from the main aviation industry bodies is that this growth has been very significantly affected by COVID-19. Despite this evidence, LBA's ES explicitly does not assess the impact of COVID-19, whether on benefits (in the socio-economic chapter) or impacts (eg in the climate change, transport, noise and human health chapters). The letter set out that this means the ES does not comply with the legal obligations in the Town and Country Planning (Environmental Impact Assessment) Regulations 2017. It is not a proper ES.

The letter set out why it would be unlawful for the Council to consider LBA's application without a proper ES.

GALBA is particularly concerned about this because the environmental impact assessment process is supposed to ensure that “the public are given early and effective opportunities to participate in the decision making procedures”.<sup>2</sup> This has not happened, because the ES is based on passenger growth as forecast in 2017, ignoring the obvious and long-lasting impact of COVID-19 on those forecasts. Members of the public have been deprived of commenting on a realistic situation. They have not been able to put forward their own concerns about how COVID-19 changes the need for the development and undermines the claimed economic benefits.

Despite indicating that GALBA would receive a response to the Urgent Legal Letter by 3 July 2020, the Council still had not responded by 9 July 2020, so GALBA wrote again asking for an urgent response. We were told that the Council is currently seeking legal advice. The Council could not give a time period in which it would respond, stating merely that it will come back us “in due course.” Accordingly, as things presently stand, GALBA has raised an unanswered serious legal concern, which means the Council cannot lawfully consider the application on the basis that it has been presented.

More than a month has now passed since the Council received the Urgent Legal Letter and GALBA does not consider it reasonable to delay any further providing this objection. GALBA is concerned that you have sufficient time to consider the contents of this objection and take them into account in preparing the Report to the Plans Panel.

In light of the concerns raised in the Urgent Legal Letter, GALBA calls on the Council to refuse to grant planning permission because LBA has failed to provide the information that the Council, by law, must have so it can consider properly the environmental impacts of the proposed development.

## 2. The Application is Effectively for Increased Passenger Numbers

LBA has claimed, particularly recently,<sup>3</sup> that its application is not about increased passenger numbers because, LBA say, there is no restriction on them increasing numbers to 7MPPA. So LBA is downplaying the impact of the application, because they claim it is not for expansion of passenger numbers, and LBA is trying to differentiate its application from the run of recent airport applications that were refused on environmental impact grounds (Stansted Airport; Luton Airport and Bristol Airport) and the Heathrow Terminal 3 case.

---

<sup>2</sup> National Planning Practice Guidance <https://www.gov.uk/guidance/environmental-impact-assessment> Ref id 4-002-20140306.

<sup>3</sup> <https://www.leeds-live.co.uk/news/leeds-news/leeds-bradford-airport-boss-says-18433211?fbclid=IwAR0Brid5sG2F3K9G5Z966QdxV8EtL7r9mLZ1lq0R-tBpAfOL4PtMZGvhlZI>.

LBA's claims are not correct and the Council should take into account, when considering the environmental and other impacts of the proposal, that it will permit an increase in passenger numbers if it grants this application.

GALBA is aware that the current application does not directly apply for permission to increase the number of passengers per annum that the airport can accommodate. But the application is explicitly based on the new airport building and the extended flying hours being needed to bring about growth to 7mppa by 2030 ('Planning Report'<sup>4</sup> §1.27; §1.49; §6.9). LBA state they cannot achieve growth to 7mppa without the extended flying hours and without the new terminal building. LBA's own documents state that, without the development, passenger demand at the airport could only increase to 5.5mppa by 2030.<sup>5</sup> So it is wrong to say that the application is "just" about a new terminal building or "just" about extended flying hours. It is about these things being needed in order to achieve growth in passenger numbers. Without the planning permission, growth to 7mppa cannot happen – this is what LBA's application says.

LBA is also not correct that the current planning permissions under which it operates or which it could implement (ie the terminal building which consented in 2019) fail to control passenger numbers. They do, through a section 106 agreement, a legal agreement between LBA and the Council. This legal agreement effectively limits expansion that results in passenger numbers consistently above 4.5 mppa. The section 106 agreement recognises that surface access arrangements cannot easily cope beyond that number and that new transport, travel and other arrangements are needed for expansion beyond 5mppa. LBA signed up to this on 29 January 2019.<sup>6</sup> If the Council grants the current application, LBA will be able to avoid this control of passenger numbers because the previous section 106 agreement would effectively be superseded by a grant of permission designed to facilitate growth to 7mppa.

### 3. Greenhouse gas (GHG) impact and climate change

Climate change is a material consideration in all planning decisions. For this application, it is relevant to the main planning policy, SP12. This is in line with the statutory obligations

---

<sup>4</sup> Throughout this objection we have referred to Quod's report as 'Planning Report' – even though the more usual terminology would be 'Planning Statement', so as not to cause confusion with the eventual Officer's Report.

<sup>5</sup> ES Chpt 4 para 4.2.3.

<sup>6</sup> Quod's 'Planning Report' goes so far as to suggest that it would be "ultra vires" for a requirement controlling passenger numbers to be in a section 106 agreement (para 1.17, see also paras 4.40-4.42 and 4.55). It gives no authority for that proposition. Airport passenger numbers are routinely controlled by planning authorities and there is no reason that such control would be unlawful via a section 106 agreement. Nor is there any reason why it would be unlawful to exercise that control by requiring a further application to be made.

under the Climate Change Act 2008 (legislation referred to in the NPPF), which now requires net zero by 2050. This in turn is reflected in Leeds City Council's Climate Emergency Declaration (27 March 2019), the Leeds Carbon Roadmap and the Best Council Plan for 2020-2024, which makes the Climate Emergency' one of the three 'pillars' of Council's overarching strategy<sup>7</sup>. It also reflects paragraph 148 of the NPPF, which requires planning decisions to “shape places in ways that contribute to a **radical reduction** in greenhouse gas emissions” (emphasis added). Decisions concerning fossil-fuel dependent development, like airport expansion, are not exempt from these climate change considerations.

LBA accepts that climate change impact is a material consideration in this decision and has included a chapter on GHG impact in the ES. However, the scale of the GHG impact of the proposal has been underestimated (we identify four serious flaws below) and the magnitude of its GHG impact has been underplayed (both because of how the impact is presented and because the impact is not properly evaluated in relation to the Council's commitment to net-zero by 2030).<sup>8</sup>

This means that the ES is flawed, potentially leading to legal error. It also means that the true extent of the GHG impact is not provided by LBA. It is crucial to the planning considerations that the Council must take into account, both under the development plan and national planning policy, the true extent of the impact. We address that in the Planning Balance section below.

#### *Underestimation of scale of the GHG impact*

The ES Chapter on GHG impact fails to quantify and assess four important impacts, and thus significantly underestimates the true scale of the impact of the proposed development:

- (1) **Failure to quantify and assess emissions from inbound flights, contrary to the Council's scoping opinion:** The ES takes a completely inconsistent approach to emissions from inbound flights. It states in Table 7.1 that the assessment “assumes therefore that air traffic movements in the With Development scenario are additional at a national level” (emphasis added). So the flights are new flights, which do not simply substitute flights from other UK airports. However, contrary to Council's scoping opinion, the ES only assesses the emissions of the outbound leg of these new flights, and not the inbound leg. This misapplies to the EIA process a corporate accounting approach for existing flights (which is used to avoid double-counting). That approach is not justified when calculating

---

<sup>7</sup> <https://democracy.leeds.gov.uk/ieListDocuments.aspx?CId=102&MId=9775&Ver=4>.

<sup>8</sup> Please note that, because this chapter (like all the chapters of the ES) ignores the potential impact of COVID-19, it is impossible for GALBA to comment on what the potential GHG impacts of the proposed development will be in light of the changes wrought by the pandemic. Accordingly our analysis simply shows the flaws in the ES, approaching it on its own logic.

the environmental impacts of new flights brought about by the proposed development. The ES therefore only assesses 50% of the GHG impacts from the new flights.

(2) **Failure to quantify and assess non- CO<sub>2</sub> effects at altitude, contrary to the Council’s scoping opinion.** The UK Committee on Climate Change (CCC) – the independent statutory body tasked with advising the government under the Climate Change Act – in May 2019, published two reports concerning net-zero. In the Technical Report,<sup>9</sup> the CCC states:

“Planes can also create contrails (long trails of cloud caused by aircraft flying through supersaturated air) depending on the atmospheric conditions. As these clouds are high in the atmosphere, they have a relatively large warming effect on the climate. Overall, non- CO<sub>2</sub> effects from aviation warm the climate and approximately double the warming effect from past and present aviation CO<sub>2</sub> emissions” (pg 168).

The Council specifically required these effects to be assessed in the scoping opinion. Instead, the ES excludes all non- CO<sub>2</sub> impacts. The reasons given do not stand up to scrutiny:

- The first ‘reason’ given is that the CCC’s “advice” is “not to account for the radiative effects of non- CO<sub>2</sub> emissions at altitude until there is improved scientific evidence” (ES paragraph 7.3.8). The ES refers to the Net-Zero Technical report as the source of the CCC’s “advice”. The ES misrepresents the position. The CCC’s advice was that non- CO<sub>2</sub> impacts should not be included within current carbon budgets, but that “the Government should develop a strategy to ensure that these effects can be mitigated over the coming decades (e.g. by 2050-70 for pathways that meet the Paris Agreement) without increasing CO<sub>2</sub> emissions” (pg 182). For the same reasons as given above, this does not mean that non- CO<sub>2</sub> impacts can properly be excluded from EIA, or that they are irrelevant to planning decision-making. The opposite is the case. This was recognised by the Court of Appeal in the Heathrow’s third runway judgment. The Court stated that aviation’s non- CO<sub>2</sub> effects are an “obviously relevant factor” and should be taken into account (see paragraph 258).
- The second ‘reason’ given in the ES is that there is no “scientific consensus” on the effect of non- CO<sub>2</sub> emissions at altitude. But there does not have to be “scientific consensus” before an impact is included within EIA. The precautionary principle applies. The Court of Appeal accepted the following submission in relation to non- CO<sub>2</sub> effects: “In line with the precautionary

---

<sup>9</sup> <https://www.theccc.org.uk/publication/net-zero-technical-report/>

principle, and as common sense might suggest, scientific uncertainty is not a reason for not taking something into account at all, even if it cannot be precisely quantified at that stage.” (paragraph 258).

- The third ‘reason’ given in the ES to exclude assessing non- CO<sub>2</sub> impacts is that it presents emissions “as CO<sub>2</sub>e that are consistent with government emission factors for aviation fuel.” (paragraphs 7.3.11). This refers to a 2019 publication by BEIS entitled “UK Government GHG Conversion Factors for Company Reporting”. As is clear from the name, this document refers to corporate reporting, not to criteria for EIA. It concerns criteria for reporting under the Companies Act 2006 and underlying regulations, not the EIA Directive and Regulations.

There is no proper reason why non- CO<sub>2</sub> emissions at altitude were excluded. Their exclusion has led to an underestimate of the impact of the proposed development.

**(3) Failure to quantify and assess emissions until 2084, as requested by the Council in its scoping opinion:** The Council’s scoping opinion asked for a 60 year forecast. This was the correct approach, given how long GHG impacts last and given the need to understand longer-term impacts in order to plan now for adequate GHG reductions or mitigations. The ES does not comply with the request in the scoping opinion. It provides forecasts up to 2030 (and provides detailed information for only two specific years, 2024 and 2030). It then gives just a “high level scenario” up to 2050 (paragraph 7.3.19), with minimal information for 2050. This is obviously an incomplete assessment. The ‘reason’ given is that calculating the emissions over a 60-year period would “involve huge assumptions and uncertainties in data”, leading to unreliable results. But EIA always requires assumptions to be made, and the precautionary principle means that uncertainties do not justify an impact like GHG impact not being assessed.

**(4) Failure to quantify and assess cumulative emissions, as requested in the Council’s scoping opinion:** The ES does not calculate cumulative emissions, either to 2050 or to 2084. Instead it provides a single estimate for 2050 and only estimated cumulative emissions for the period 2024-2030. This is a serious omission. It is basic EIA practice to address cumulative impacts. For GHG impacts this is even more important, because precisely the problem with GHG is that it accumulates in the atmosphere: that is what is creating the climate emergency. The ES takes totally the wrong approach. The Council’s scoping opinion asked for “a comprehensive, thorough and conservative assessment of the total net increase in GHG emissions which will occur as a direct and indirect result of the

Development over its whole life cycle e.g. 60 years”.<sup>10</sup> Failure to provide a cumulative assessment obviously does not provide the information requested by the Council.

These four serious omissions amount to a critical legal error: the ES assessment is not based on the scoping opinion. Regulation 18(4) of the EIA Regulations requires that, where a scoping opinion has been issued, the environmental statement “must be based on the most recent opinion”, so long as the proposed development remains materially the same as that which was subject to the scoping opinion. The Climate Change chapter is not “based on” the scoping opinion because it does the opposite of what was asked for in terms of the time period for assessment and crucial impacts that should be included (non- CO<sub>2</sub> impacts; inbound and outbound flights).

In light of the four serious omissions, the ES very significantly underestimates the scale of the GHG impact of the proposed development. The extent of the underestimation is shown by the calculations undertaken by Prof Steinberger, Professor Chatterton, Dr Finney and Mr Vogel in their objection.<sup>11</sup> GALBA supports this objection and invites the Council to use its calculations as the basis for its assessment of the GHG impacts of the proposed development, because they more accurately reflect the extent of the impact and they provide the assessment that the Council itself requested in the scoping opinion.

#### *Underestimation of the seriousness of the impact*

Looking first at the impacts that the ES does calculate, the Climate Change chapter presents the figures in an unhelpful way: they are disaggregated and expressed mainly for specific years. The GHG emissions of construction (assumed to take place over three years) are 11,790 tonnes CO<sub>2</sub>e.<sup>12</sup> The GHG emissions of operation of the airport with the proposal, estimated over just six years (2024-2030) are 2,860,914 tonnes CO<sub>2</sub>e.<sup>13</sup> The GHG emissions of operation of the airport without the proposal, over the same period, are estimated to be 2,411,037 tonnes CO<sub>2</sub>e.<sup>14</sup> This means that, over just six years, the operation of the proposed development would cause an extra 449,877 tonnes CO<sub>2</sub>e, or 74,979.5 tonnes CO<sub>2</sub>e per annum to be emitted.

---

<sup>10</sup> ES paragraph 7.3.1.

<sup>11</sup> GALBA fully agrees with and supports this objection. These four academics are true experts on climate change. Prof Steinberger’s work focuses on quantifying impacts and investigating how human well-being can be achieved within planetary boundaries, and she is lead author for the IPCC’s 6<sup>th</sup> Assessment Report. Prof Chatterton is an expert in sustainability and carbon vs post-carbon infrastructure; Dr Finney is a researcher within the Institute for Climate and Atmospheric Science (ICAS) at the University of Leeds and is an expert in atmospheric science; Mr Vogel has an MSc in Climate Dynamics (Meteorology and Oceanography) from the University of Bergen and is working on sustainability and climate change.

<sup>12</sup> ES paragraph 7.6.1 Table 7-8.

<sup>13</sup> ES Table 7-9.

<sup>14</sup> ES Table 7-5.

On LBA's numbers, in total (operation plus construction), over nine years, the proposed development would cause an extra 461,668 tonnes CO<sub>2</sub>e to be emitted. This, it must be remembered, is a serious underestimate.

LBA's application goes on to underplay the magnitude and significance of the proposal's GHG impact. In paragraph 8.64 of the 'Planning Report', Quod states that the GHG emissions (seriously underestimated, for the reasons given above) would be "a modest 0.016%" of the UK's carbon budget if the terminal were built. It compares this to the position if the proposal were not built, which it asserts would be 0.014% of the UK's carbon budget. The point of this is to suggest that an impact on 0.002% of the UK's carbon budget is insignificant (although the Climate Change chapter in the ES records the magnitude of the operational impact as "medium")<sup>15</sup>. There are two important ways in which this underplays the magnitude of the impact:

- (1) First, as a matter of principle, this is the wrong comparison to make. The carbon budget for the whole UK reflects all GHG emissions from every source (apart from international aviation and shipping – this is addressed further below). So the UK carbon budget includes emissions from power stations; the gas network; all transport; all industry; all agriculture and food production; and all users (from hospitals to schools to universities). Almost all single developments appear to have very small impacts when compared to the whole of the UK's carbon budget.
- (2) Second, the ES uses this comparison as a way of removing international aviation emissions from the impact of the proposed development (see Table 7-14 of the ES). This is the wrong approach in light of the EIA Directive and the UK's EIA Regulations, which require an assessment of all direct and indirect effects of the project, regardless of where these occur. The UK Government's carbon emissions are not only in the carbon budgets and its obligations are not solely set by those budgets. The February 2020 Court of Appeal Judgement on Heathrow Expansion<sup>16</sup> clarified the UK's legal obligation, as a signatory to the Paris Agreement, and that this is part of the Government's policy. Under the Paris Agreement, it would not be legally sufficient for the UK to achieve net-zero by 2050 (which is the minimum requirement under the Climate Change Act) by excluding impacts from emissions such as international aviation. When assessing the GHG impact of development, it is necessary to look not just at the UK's carbon budgets, but also to consider the UK's further legal commitment under the Paris Agreement. The ES completely fails to do this.

---

<sup>15</sup> ES paragraph 7.7.1 Table 7-20.

<sup>16</sup> The Court of Appeal's recent judgement regarding the proposed expansion of Heathrow Airport –paragraph 228 [https://www.judiciary.uk/wp-content/uploads/2020/02/Heathrow-judgment-on-planning-issues-27-February-2020.pdf?fbclid=IwAR3OQKZqQ\\_Wd41jVtcxrBimnVuqWMogMaPXgi1JYWRAA6XCF3lqhZL1uowQ](https://www.judiciary.uk/wp-content/uploads/2020/02/Heathrow-judgment-on-planning-issues-27-February-2020.pdf?fbclid=IwAR3OQKZqQ_Wd41jVtcxrBimnVuqWMogMaPXgi1JYWRAA6XCF3lqhZL1uowQ)

Instead, the ES should have set out how the proposed development would affect the ability of Leeds to reach net-zero by 2030, which is what the Council recognised has to happen in order to address the climate emergency – see the Council’s Climate Emergency Declaration. What matters most for Leeds, and what’s within Council’s responsibility, is how much of Leeds’ carbon budget (adopted by Council) would be used up by the emissions associated with the airport in the case of an expansion, and how these emissions compare to the annual emissions targets that are compatible with Leeds’ Zero Carbon Roadmap as well as the Leeds Climate Emergency Declaration. The ES, strikingly, deals incompletely and inaccurately with these things. Prof Steinberger and the three other academics undertake the correct analysis in their objection, as addressed further below.

Another way to understand the actual GHG impact of the proposed development is to compare the proposal to something more tangible. Professor Mike Berners-Lee, professor at Lancaster University and a world leader in the field of carbon metrics, has estimated that the operation of a university (based on Lancaster University) emits 72,000 tonnes CO<sub>2</sub>e per annum.<sup>17</sup> On the underestimated figures in the ES, the proposed development would add 74,979.5 tonnes CO<sub>2</sub>e per annum. So on LBA’s own case, permitting the proposal would take up more than the GHG equivalent of another university, every year.

The objection by Prof Steinberger and the other three academics also shows how the comparison that the ES does make comparing GHG emissions to the Leeds City Carbon Roadmap excludes international aviation emissions. These emissions would contribute the most additional emissions (see LBA’s own forecast numbers in Table 7-12 of the ES, and how this is approached in Table 7-15 of the ES). As set out above, it is wrong in EIA terms to exclude international aviation emissions, and the fact that the Leeds Carbon Roadmap excludes those emissions does not change that, nor does it provide justification for the ES to exclude those emissions in its assessment of the magnitude of the impact.

The actual magnitude of the impact would be much more serious, as the objection by Prof Steinberger and the three other academics shows. Focusing first on Leeds:

- Over just the seven year period 2024-2030, the proposal would cause an additional 1.7 Mt CO<sub>2</sub>e to be emitted – which is 23 times the impact in the ES. This is entirely incompatible with the goal for Leeds to reach net-zero by 2030;
- Over the 27-year period 2024—2050, cumulative GHG emissions would be 27.7 Mt CO<sub>2</sub>e in the with-development case and 16.4 Mt CO<sub>2</sub>e in the without-development

---

<sup>17</sup> Mike Berners-Lee “How Bad are Bananas? The Carbon Footprint of Everything” (Profile Books, 2010). This includes the GHG from gas, electricity, commuting, business travel, building maintenance; equipment, as used by students and staff.

case. The net effect of the development over that period is thus 11.3 Mt CO<sub>2</sub>e This means the airport would, alone, use up 75% of the total carbon budget for the whole of Leeds for the period 2018—2050. Again, entirely incompatible with both Leeds’ and the UK’s net zero obligation;

- Over the 60-year period 2024—2084, cumulative GHG emissions would be 52.9 Mt CO<sub>2</sub>e in the with-development case; and 30.4 Mt CO<sub>2</sub>e in the without-development case. The net effect of the development over that period would thus be 22.5 Mt CO<sub>2</sub>e. Emissions from the airport until 2084 would thus, alone, exceed the entire carbon budget for the whole of Leeds and the net effect of the proposed development would be responsible for 42% of those emissions.

This shows just how much LBA’s statements in the application about a new eco-friendly terminal are just greenwashing. The purpose of the new terminal is to increase flights in a way that significantly increases GHGs. Any GHG savings from the new terminal will be overwhelmingly outweighed by the increases it enables. LBA’s assertion in the ‘Planning Report’ that “doing nothing...will not respond to the environmental agenda set by Leeds’s climate emergency”<sup>18</sup> is completely inaccurate. Rather than sink investment into more carbon intensive infrastructure, which imperils Leeds’s climate commitments, we have to move to truly green investment, urgently. This is both an environmental and an economic imperative – we address this further below.

Second, looking at West Yorkshire, the additional GHG emissions would make it impossible for the West Yorkshire Combined Authority (“**WYCA**”) to meet its target of net zero by 2038. WYCA and its Local Enterprise Partnership (“**LEP**”) declared a climate emergency on 27 June 2019 and strengthened the region’s target to become net-zero by 2038, with “significant progress” to be made by 2030.<sup>19</sup> That target is based on research undertaken for WYCA to ensure alignment with the Paris Agreement.<sup>20</sup> WYCA has recognised that it will require significant and swift action to decarbonise all sectors to meet its targets.<sup>21</sup> In light of the above analysis, the additional GHG emissions that would be caused by permitting LBA’s proposed development would make it impossible for WYCA to meet its 2038 target (or, indeed, to make significant progress by 2030). We are aware that the Combined Authority published its West Yorkshire emissions reduction pathways study on 17th July and that this is due to be considered by the authority on 27th July. We will be reviewing the contents of the study in due course.

---

<sup>18</sup> ‘Planning Report’ paragraph 2.2.

<sup>19</sup> <https://westyorkshire.moderngov.co.uk/documents/s15165/Item%206%20Appendix%201.pdf>

<sup>20</sup> <https://westyorkshire.moderngov.co.uk/documents/s16349/Item%208%20ERP.pdf>

<sup>21</sup> Ibid para 2.3.

Finally, looking at the UK's obligation to achieve net zero by 2050, the objection from Prof Steinberger and the three other academics shows that the extent of the emissions from the "With Development" airport "would likely close the opportunity for UK aviation" to meet the CCC's "further ambition" target that aviation emissions should not exceed 31 Mt CO<sub>2</sub>e by 2050.<sup>22</sup> It would have an even more detrimental impact on the ability of the UK to meet the "speculative options" target of 22 Mt CO<sub>2</sub>e by 2050.<sup>23</sup> LBA is therefore incorrect when they assert in the 'Planning Report', that the GHG emissions from the proposal, including increased flights "will not have a material impact on the ability of Government to meet its climate change obligations."<sup>24</sup> It will significantly impair the ability to meet the binding net-zero obligation by 2050.

#### 4. Noise Impact

Policy SP12 only allows support for development at the airport where adverse environmental effects are properly mitigated. Noise is one of the main adverse environmental effects. It is a very serious concern of the local community, which should carry heavy weight in the planning balance. In Appendix 1 to this objection, we set out the detailed analysis on noise produced by Mr Andy Tait, who is an electronic engineer with 35 years' experience and is a specialist in reading and understanding technical documentation, as he was Technical Publications Manager in international technology companies for 20 years.

In summary, this shows that the proposed development does not comply with policy SP12 because the noise impact is not properly mitigated:

- LBA is proposing to increase the noise permitted for planes taking off at night;
- LBA is proposing to remove restrictions on noise and number of flights operating during the "shoulder" periods;
- LBA is proposing to reduce the protected night-time period by 23%.

Looking at national policy, which is a material consideration, the proposed development contravenes the UK's Aviation Policy Framework 2013, which "expects the aviation industry to make extra efforts to reduce and mitigate noise from night flights through use of best-in-class aircraft, best practice operating procedures, seeking ways to provide respite wherever

---

<sup>22</sup> It is important to understand what the CCC means by "further ambition" – these measures are the minimum measures that have to be taken to achieve net-zero by 2050: see the Net Zero Technical Report pg 12.

<sup>23</sup> These are "speculative" only because they rely on technological developments which may or may not come to fruition. The CCC makes it clear that, if the net-zero emissions target is to be met, it is important for the government to aim to achieve the speculative options: see the Net-Zero Technical Report pg 15

<sup>24</sup> 'Planning Report' paragraph 53.

possible and minimising the demand for night flights where alternatives are available.”

Contrary to this:

- LBA are increasing noise, not reducing or mitigating it;
- In particular, LBA are increasing night flights, when the alternative is to fly during the day; and
- LBA are not “sharing noise improvements with the community”, as required by national policy, instead they are exploiting technology improvements simply to fly more planes.

#### 5. Surface Access and Local Highways Impact

Surface access is a key concern of Policy SP12’s, with two of the four criteria for permitting support for development of the airport relating to surface access. The third criterion relates to local impacts, including highway impacts. We have read the detailed objection on this submitted by the North West Leeds Transport Forum and we agree with their points.

#### 6. Public health impact

LBA accepts that the proposed development will have negative public health impacts: the ‘Planning Report’ states that some “adverse effects are likely to arise as a consequence of slight increases in disruption, disturbance and pollution near the airport”, although the assessment on a population-basis is “small”.<sup>25</sup> It is notable that the ES chapter on Public Health relies for its assessment of the extent of public health impacts on the other chapters in the ES. Given that both GHG impact and noise impact have been underestimated, the starting point for the public health assessment in both instances has been underestimated.

LBA seeks to avoid the negative public health impacts of the proposed development by focusing on the positive health impacts related to “job creation and local investment over a wide area.”<sup>26</sup> In effect, LBA’s position is that health and wellbeing effects are beneficial because the positive impacts of economic benefits outweigh the admitted negative health impacts. We set out below why LBA seriously overestimates the economic benefits of the proposed development, because of the failure to factor in the impacts of COVID-19. In light of this, the health benefits of the proposed development will necessarily diminish, and overall public health should weigh against the grant of planning permission, not in favour.

---

<sup>25</sup> ‘Planning Report’ paragraph 8.108.

<sup>26</sup> ‘Planning Report’ paragraph 8.108.

## 7. Overall impacts on the local community – human rights obligations

The proposed development will have negative impacts on local residents. In particular the proposed increases in night flying will have negative noise and emission impacts on the communities over whom more planes will fly. The new terminal will have negative traffic impacts (which also have noise and air quality implications) and the proposal will have serious negative GHG impacts, contributing to climate change.

Article 8 of the European Convention on Human Rights (ECHR), which applies in the UK by virtue of the Human Rights Act 1998,<sup>27</sup> entails a positive obligation on public authorities to protect individuals from environmental harm and risks. Public authorities are also required to apply the precautionary principle, which means that uncertainty around scientific and/or technical knowledge does not justify taking decisions that entail a risk to individuals' health. Where other articles of the ECHR apply, Article 14 protects against discrimination in the enjoyment of those rights.

Taking climate change first, the Council may be aware of a landmark decision by the Dutch Supreme Court, the Urgenda climate case.<sup>28</sup> This case established that climate change poses a real threat to individuals, resulting in the serious risk that the current generation of citizens will be confronted with loss of life and/or a disruption of family life. As a result, the positive obligations in Article 2 (the right to life) and Article 8 (the right to bodily integrity) in the European Convention of Human Rights means that public authorities have a duty to protect the communities they serve from this real threat. Given the significant GHG impact of the proposed development, that positive human rights obligation weighs against the grant of planning permission.

Furthermore, climate change disproportionately affects poorer residents, and climate change will be accelerated by more flights from the airport. In heatwaves, people living in overcrowded houses, in more densely built-up areas with little access to open green spaces suffer more. In extreme cold weather it's those in poorly thermally insulated houses, experiencing fuel poverty, that bear the brunt. As the Council is well aware, and as is confirmed by LBA's own public health evidence, about 20% of children in Leeds live in low income families and life expectancy for both men and women in Leeds is already lower than

---

<sup>27</sup> Because the Human Rights Convention applies in the UK by virtue of the Human Rights Act 1998, Brexit does not affect or diminish its application.

<sup>28</sup> <https://www.urgenda.nl/en/themas/climate-case/>

the national average.<sup>29</sup> The positive obligation to protect these residents of Leeds<sup>30</sup> also weighs against the grant of planning permission.

Both Article 8 and Article 14 are engaged by the noise impacts that will be caused by the extended night flying and by the increase in flights brought about by the proposed development. LBA's own noise difference map<sup>31</sup> shows that four of the seven most deprived wards in the city will suffer the worst levels of sleep disturbance due to night-time aircraft noise. This housing is likely to be less well sound-insulated, so increased night flying will disturb these communities more. And these are communities in which it is most likely that the residents will not use the airport, given that just 15% of the UK population take 70% of all flights; highly correlated with income, and 52% of people do not fly.<sup>32</sup>

Given the positive human rights obligations on the Council and the requirement to apply the precautionary principle, the Council should take a risk-averse approach and not grant a permission that intensifies negative noise impacts, exacerbates climate change and worsens inequalities.

## 8. Overestimation of economic benefit

The socio-economic analysis that underpins all of LBA's evidence on economic benefit was calculated using numbers that significantly pre-date the COVID-19 pandemic:

- The predicted growth in employment was calculated using company reports and accounts from the Annual Business Survey published by the Office for National Statistics (ONS) in 2018 and reflecting results from 2017;<sup>33</sup>
- The indirect and induced impacts of the airport were calculated using multipliers based on United Kingdom Input-Output Analytical Tables 2015, published by ONS in 2019;<sup>34</sup>
- Turning to the wider impacts of the airport, the predicted boost in productivity was based on the CAA Passenger Survey 2017 and the Department for Transport's UK Aviation Forecasts from 2017;<sup>35</sup>

---

<sup>29</sup> ES paragraph 13.4.3.

<sup>30</sup> Unfortunately, Figure 6.2 of the Statement of community involvement shows that there were very few respondents to the consultation from inner city wards compared to those from residents in the north and northwest of city. LBA's community involvement did not access successfully the views of residents in the deprived wards, so there is a risk that their voices will not be heard and the impacts on them not properly taken into account.

<sup>31</sup> ES Figure 10.9.

<sup>32</sup> <https://fullfact.org/economy/do-15-people-take-70-flights>.

<sup>33</sup> ES paragraph 11.3.25 and footnote 23.

<sup>34</sup> ES paragraphs 11.3.12 and 11.3.25 and footnotes 20 & 21.

<sup>35</sup> ES paragraph 11.3.25 and footnote 24.

- The predicted increase in inbound tourism, used to calculate the effect of the development on wider employment and Gross Value Added (GVA), was estimated using the CAA Passenger Survey 2017 and data from VisitBritain, accessed in January 2020,<sup>36</sup> which was converted to GVA using data from the Annual Business Survey 2017.<sup>37</sup>

Rather coyly, the ES states merely that the socio-economic analysis was “undertaken before the extent of the [COVID-19] pandemic became clear”.<sup>38</sup> Instead of updating the ES, LBA chose to submit its application, relying on economic benefits that were calculated before the COVID-19 pandemic.

The Urgent Legal Letter sent on behalf of GALBA on 15 June 2020 set out the considerable evidence from the aviation sector<sup>39</sup> of the impacts of COVID-19 on the sector and the resultant reduction in demand. This should have been factored into LBA’s assessment of whether the proposed development would lead to economic benefits, since the main benefits are derived from increasing passenger numbers. This has not happened, which makes the ES incomplete and unlawful.

As set out in GALBA’s Urgent Legal Letter, the key assumption on which both the ES and the ‘Planning Report’ is based – predicted growth in passenger numbers – is no longer valid in light of the impact of COVID-19 on aviation. As a result, both the main motivation for making the application (the need to facilitate passenger growth) and the main claimed economic benefits derived from that growth, are no longer valid. The very foundation of the application has been removed.

The evidence that has emerged since GALBA wrote on 15 June 2020 does not show an improved situation. On 1 July 2020, the Chief Economist of the International Air Transport Association (IATA) published an update showing that, although businesses expect a “V-shaped” economic recovery, corporate travel will be weak and consumer confidence is still weak, meaning leisure travel will be slow to recover.<sup>40</sup> On 7 July 2020, IATA released a press release which quoted IATA’s Director General and CEO as stating: “This crisis could have a very long shadow. Passengers are telling us that it will take time before they return to their old travel habits. Many airlines are not planning for demand to return to 2019 levels until

---

<sup>36</sup> ES paragraph 11.3.25 and footnote 26.

<sup>37</sup> ES paragraph 11.3.25.

<sup>38</sup> ES paragraph 11.3.41.

<sup>39</sup> These are Airports Council International; the International Civil Aviation Organisation and the International Air Transport Association

<sup>40</sup> <https://www.iata.org/en/iata-repository/publications/economic-reports/Air-travel-turns-up-but-outlook-uncertain/>

2023 or 2024.”<sup>41</sup> In an 11-country survey conducted in the first week of June, of people who had taken at least one flight since July 2019, 66% said that they would travel less for leisure and business in the post-pandemic world.

On 3 July 2020, Airports Council International (ACI) released world data that revealed that global passenger traffic declined by an unprecedented -94.4% year-over-year in April as a result of the unfolding COVID-19 pandemic.<sup>42</sup> This followed an already dramatic drop of -55.9% in March, representing what ACI described as “the worst decline of global passenger numbers in the history of the aviation industry.”<sup>43</sup>

In light of this, it is impossible for the Council to accept, and base its assessment on, LBA’s claimed economic benefits from the proposed development. This is because the GVA and employment benefits are directly based on the proposed development allowing “further growth of passenger numbers” – ie the previous trend of growth continuing. The Socio-Economics chapter of the ES makes this clear:

“Once the Development is completed it will enable further growth in terms of passenger numbers at the Airport and more efficient operations than in the baseline. This will in turn mean that the Airport will be able to support more employment and GVA directly, through supply chains and through local wages expenditure. In addition, it will support additional employment and GVA in the wider economy, through its role in enabling business travel related to trade and investment flows and in bringing visitors to the Leeds City Region, thereby supporting the tourism industry.”<sup>44</sup>

And, as set out above, all of the calculations of how the growth in passenger numbers would impact on the airport and the wider region were based predominantly on economic and passenger data from 2015 and 2017.

In light of the evidence about the impacts of COVID-19, it would be irrational for the Council to accept this or base its decision on this.<sup>45</sup>

---

<sup>41</sup> <https://www.iata.org/en/pressroom/pr/2020-07-07-01/>

<sup>42</sup> <https://aci.aero/news/2020/07/03/aci-world-data-shows-dramatic-impact-of-covid-19-on-airports/>

<sup>43</sup> Ibid.

<sup>44</sup> ES paragraph 11.3.24.

<sup>45</sup> It is very unfortunate that GENECON’s Independent Review of the Economic Impact Assessment produced by York Aviation, commissioned by the Council, did not mention or take into account the ramifications of the COVID-19 pandemic. This is despite the review taking place in March 2020, at the same time as the publication of evidence from aviation industry bodies about the extent of the pandemic’s impact (see GALBA’s Urgent Letter). It is unclear from GENECON’s Final Report (Appendix 6 to the ‘Planning Report’) whether GENECON was instructed to ignore COVID-19. In any event, the Independent Review cannot be relied on as justification for placing any weight on York Aviation’s analysis, given it suffers from the same flaw – ignoring COVID-19.

LBA's approach to the impacts of COVID-19 is, frankly, bizarre. Whilst we would normally hesitate to use a word such as 'bizarre' in a serious document like this objection, there is no better word to describe LBA's approach. LBA continues to rely on an economic analysis conducted before the pandemic, using figures that project passenger and economic growth based on trends from well before the pandemic, and then assert that the proposed development's "economic impact should not be under-estimated, especially in the current environment where economic confidence has been significantly affected by Covid-19."<sup>46</sup> LBA go on to assert that the economic benefits of the project "take on even greater importance, and material weight" in the event that COVID-19 impacts on the local economy.<sup>47</sup> Essentially, LBA invites the Council to behave as if everything else in Leeds will be affected by the economic catastrophe of COVID-19, but not the airport, which will still deliver significant economic benefits. It would be irrational for the Council to accept this, particularly on the basis of a legally flawed ES.

Finally, LBA seeks to portray the airport as economically crucial to Leeds, but permitting the application just locks more investment in fossil-fuel heavy infrastructure. This is the opposite of the advice from the World Bank,<sup>48</sup> the IMF<sup>49</sup> and from the Bank of England.<sup>50</sup> Mark Carney has been highlighting since 2018 that there is significant risk in companies ignoring climate change and investing in fossil-fuel heavy industries.<sup>51</sup> Future economic security lies in investment in green infrastructure and industry.

## 9. The fallback position

The Summary of Planning Case says as follows at para 2.6: "The Planning Report (Section 2) demonstrates that the Airport is forecast by the Government to have growing passenger demands, with an expectation that the Airport will have a throughput of circa 7 million passengers per annum (mppa) by 2030. Whilst the existing terminal, as well as the recently consented extension to it, could accommodate some of this growth, it is operationally compromised and would not be able to deliver the step change in environmental integrity, the quality of passenger environment presented by the new terminal, nor the environment to attract new airlines."

---

<sup>46</sup> 'Planning Report' paragraph 1.55.

<sup>47</sup> 'Planning Report' paragraph 1.58.

<sup>48</sup> <https://www.worldbank.org/en/topic/climatechange>.

<sup>49</sup> <https://www.theguardian.com/business/2020/may/29/markets-not-paying-attention-to-climate-crisis-imf-warns>. The IMF has recommended that companies should be forced to disclose their climate risk.

<sup>50</sup> <https://www.bankofengland.co.uk/climate-change>; <https://www.ft.com/content/622de3da-66e6-11e5-97d0-1456a776a4f5>.

<sup>51</sup> <https://www.bankofengland.co.uk/-/media/boe/files/speech/2018/a-transition-in-thinking-and-action-speech-by-mark-carney.pdf>.

The ES also states that the consented terminal extension “was designed in 2018 and no longer meets the Applicant’s environmental and sustainability objectives.”<sup>52</sup>

LBA’s position is thus that the consented extension is operationally compromised, environmentally inefficient and not sustainable. That is why it has gone to the expense and trouble of making the current application. If the consented extension was able to achieve LBA’s objectives and permit growth, LBA would have built that terminal extension. The operationally compromised, environmentally inefficient and unsustainable consented extension is not a proper fallback. It is just theoretical. It is not more than a “theoretical prospect”. So when the ‘Planning Report’ for LBA states at paragraph 1.18 that the approved extension is a “material fallback” that should carry “significant weight as a material consideration in the determination” of the application, that is incorrect and the Council would fall into legal error if it treated the approved extension as a fallback in this way.

#### 10. Lack of compliance with the Development Plan

The Council has an updated Core Strategy, adopted in 2019. Policy SP12 is specific to Leeds Bradford International Airport. It gives support to the “continued development of Leeds Bradford International Airport”, but “subject to ... environmental assessment and agreed plans to mitigate adverse environmental effects, where appropriate”, and subject to surface access and transport impacts being managed. This is not support at all costs. The continued development of the airport is not seen as so crucial that it must be supported even if there are adverse environmental effects or adverse impacts on transport and surface access.

There are a number of reasons that the proposed development does not comply with SP12:

- (1) There has not been proper environmental assessment (see section 1 of this objection and the Urgent Legal Letter sent by GALBA’s barrister on 15 June 2020);
- (2) The adverse climate change impact of the proposed development is significant, given the extent of GHG emissions which it will cause, and this impact cannot be mitigated (see section 2 of this objection and the objection by Professor Steinberger and the three other Leeds University academics);
- (3) Even with noise mitigation proposed, the noise impact is a significantly adverse environmental effect (see section 3 and Appendix 1 to this objection);
- (4) Neither criterion (i) on surface access, nor criterion (iv) on management of highways issues, has been met (see the objection submitted by the North West Leeds Transport Forum);

---

<sup>52</sup> ES Chpt 4 para 4.4.6.

- (5) The adverse public health impacts, which are local impacts that cannot be managed (see section 5 of this objection).

Given that the proposed development does not comply with the development plan, planning permission should be refused unless material considerations indicate otherwise. As set out below, they do not. The proposal does not gain support from the NPPF and the alleged economic benefits are not sufficient to outweigh the serious adverse impacts set out above.

## 11. Overall Planning Balance

The UK is not on track to meet either the fourth or the fifth carbon budgets. The science shows that every release of GHG emissions is important and impactful. The Council may recall the shockwaves that went around the world when the International Panel on Climate Change (IPCC) released its report in October 2018 entitled “Global Warming of 1.5°C.”<sup>53</sup> This special report was produced at the request of the parties to the 21st Congress of Parties (or ‘COP’), which adopted the Paris Agreement. The IPCC is recognised by the UK Government as the international authority on climate change. It carries out its work with the help of thousands of climate scientists from around the world, including from the UK.

The IPCC Special Report demonstrated that, to limit global warming to 1.5°C and to 2°C, rapid and far-reaching reductions in GHG emissions are required. Importantly, the IPCC Special Report notes that whilst, emissions from the pre-industrial period to the present will persist for a very long time, they alone are unlikely to cause global warming of 1.5°C. The GHG emissions that we are emitting now and in the next 10 years will make the difference. This reinforces the requirement for early action, with the IPCC Report emphasising how immediate and far-reaching steps need to be taken to limit current and future emissions.

The IPCC’s Special Report was referred to by the CCC – the independent statutory body tasked with advising the government under the Climate Change Act –when they produced their report on 2 May 2019 entitled “Net Zero – The UK’s contribution to stopping global warming” (the Net-Zero Report). The Net-Zero Report set out the need for rapid and significant steps to be taken immediately to achieve net-zero. It advised that these steps include reduction in domestic aviation emissions and international aviation emissions.

This report (and the IPCC Special Report) are material considerations that weigh against the grant of planning permission. The CCC’s view is that, to align with the UK’s Paris Agreement

---

<sup>53</sup> <https://www.ipcc.ch/sr15/>.

commitments, there have to be “deep cuts” in CO<sub>2</sub>, methane and other non- CO<sub>2</sub> emissions, which must “decline significantly between now and 2050” (pg 75).

If we are to hold to 1.5 degrees we have a small carbon budget available; incredibly small. Every additional molecule will take away from that tight carbon budget. So there is little emissions space and that space should not be given to airport expansion, which just locks in carbon intensive development.

In planning terms, GHG impact is very important. This is not only because it is a central concern of the Local Plan (paragraph 1.1 of the Plan identifies climate change as a “huge challenge” facing Leeds) and directly relevant to the key policy, SP12. On 27 June 2019, in light of the CCC’s Net-Zero Report, the government amended the Climate Change Act 2008 to impose a statutory obligation that, by 2050, there will be a 100% reduction in GHG emissions from 1990 levels (the Net-Zero Obligation). Previously an 80% reduction was required – this is the requirement reflected in the Core Strategy. It is a material consideration that a new, tighter obligation now applies.

The Environmental Impact Regulations 2017 require that impacts are assessed against the “environmental protection objectives” established by the United Kingdom which are relevant to the project. The Net-Zero Obligation is the main GHG “environmental protection objective”. The impact of the proposed development thus has to be evaluated against the Net-Zero Obligation.

LBA asserts in its “Planning Report” that “doing nothing” will “not respond to the environmental agenda set by Leeds climate emergency” (paragraph 2.2). The opposite is true. “Doing nothing” – ie refusing planning permission – will prevent an additional 461,668 tonnes CO<sub>2</sub>e from being emitted between now and 2030, which is a crucial period according to the CCC. It will prevent even more additional emissions between now and 2050. In climate terms, refusing planning permission is the best approach.

Given the GHG impact of the proposed development, it is in conflict with the NPPF paragraph 148, which requires the planning system (of which decision-making is a central aspect) to “shape places in ways that contribute to radical reductions in greenhouse gas emissions”. It is also in conflict with the net-zero obligation, as set out in section 3 above.

It is important to emphasise that it would be wrong under planning policy and law for the Council to approach climate change and the GHG emissions from aviation proposals like LBA’s proposal as a matter for national government (as per the comments at LCC’s Executive Board on 7 January 2020, quoted in the “Planning Report” at paragraph 5.106). It is not. The

Council, as local planning authority, is obliged to consider the climate change impact of the proposed development, under its Core Strategy, under the NPPF and because of the EIA Regulations.

Given the existential threat of climate change; the Net Zero Obligation and the urgency with which action must be taken, the GHG impacts of the proposed development must weigh very heavily against it.

The adverse public health impacts of the proposed development (see section 6) also weigh against the grant of planning permission. So too do the positive human rights obligations on the Council, the requirement to apply the precautionary principle and the requirements to prevent discrimination (see section 7 above). These are further material considerations against the proposed development.

The key consideration that LBA relies on as a material consideration in favour of granting planning permission is the alleged economic benefit that the proposals will generate. As set out in section 8 above, these have been seriously over-estimated. LBA's flawed approach means that it would be irrational for the Council to accept LBA's evidence on economic benefits or base its decision on these benefits. In the planning balance, only limited weight can be attributed to any economic benefits that will be generated by the scheme.

Accordingly, material considerations are not such that planning permission should be granted, despite lack of compliance with the development plan. GALBA therefore invites the Council to refuse planning permission.

Yours sincerely

Chris Foren (Chair) and Ian Coatman (Secretary)  
On behalf of GALBA

**Definition** - A receptor is a location or building in the area undergoing noise analysis that is used for data points. Noise levels are modelled for specific receptor locations.

## Summary of Key Issues

### Objection on planning policy grounds

#### Local

The application contravenes CORE STRATEGY SPATIAL POLICY 12 MANAGING THE GROWTH OF LEEDS BRADFORD INTERNATIONAL AIRPORT, SP12 iii

*The continued development of Leeds Bradford International Airport will be supported to enable it to fulfil its role as an important regional airport subject to: ... (iii) Environmental assessment and agreed plans to mitigate adverse environmental effects, where appropriate,*

- LBA are not mitigating, or planning to mitigate, adverse environmental effects with respect to noise.
- They are proposing to increase the noise permitted for planes taking off at night.
- They are proposing to remove restrictions on noise and number of flights operating during the “shoulder” periods.
- They are proposing to reduce the protected night-time period by 23%.

#### National

The Application contravenes the UK's Aviation Policy Framework 2013 APF 2013 Night noise

*3.35 In recognising these higher costs upon local communities, we expect the aviation industry to make extra efforts to reduce and mitigate noise from night flights through use of best-in-class aircraft, best practice operating procedures, seeking ways to provide respite wherever possible and minimising the demand for night flights where alternatives are available. ...As a general principle, the Government therefore expects that future growth in aviation should ensure that benefits are shared between the aviation industry and local communities. This means that the industry must continue to reduce and mitigate noise as airport capacity grows. As noise levels fall with technology improvements the aviation industry should be expected to share the benefits from these improvements.*

- LBA are increasing noise, not reducing or mitigating as the APF expects.

- The alternative to night flights, which are a creation of operators to maximise profits, is to fly during the day, not at night.
- LBA are not sharing noise improvements with the community, they are exploiting technology improvements to fly more planes

### Relaxation of night flying

LBA want to:

- Abolish the existing restrictions on flights in the “shoulder” periods between 0600 and 0700 and between 2300 and 2330 (*page 8 of Appendix 10.7*).
- Allow noisier planes to take-off between 2330 and 0600 (*page 9 of Appendix 10.7 indicates that planes with a noise “quota count” of up to 1.0 will be allowed to take-off during this period – the current limit is 0.5, thus the maximum certified noise allowed on take-off goes up by 3dB from 89.9dB to 92.9 dB*).
- Allow planes to land up until 0100 if they are up to 90 minutes behind schedule (*page 9 of Appendix 10.7*).
- Abolish the existing cap on the number of noisy flights (87dB or above) between 2300 and 0700 (*see page 8 of Appendix 10.7*).
- Fly until 2am. See Late night flights on page 9.

### Predicted numbers affected

Even with their optimistic assumption on fleet composition, LBA’s forecasts are alarming. They predict that, compared to the situation without their proposed development, their proposals would cause thousands more people to be subject to plane noise loud enough to have an adverse effect on them:

- At night, the area surrounding the airport where people will experience LOAEL (the lowest noise dose at which there is an observed adverse effect) will increase after development by 8.6km<sup>2</sup>, to 56.2km<sup>2</sup>. This means that 123,000 people will fall into this category, and due to the increased incidence of noise the number of people being Highly Sleep Disturbed will be 42,000 and the number of people being Highly Annoyed will be 93,500 [1].
- 11897 households will experience increased day time noise in 2030 (*Figure 10.4-52 WebTAG workbook for the Development*).
- 43367 households will experience increased night time noise in 2030.
- An extra 2,600 people will be subject to at least 51dB (LAeq16hr), an extra 1900 to at least 54dB, an extra 700 to at least 57dB and an extra 200 to at least 60dB (*see Low birth weight for babies of mothers in proximity to the airport*) (*Table 10.21 in the noise and vibration chapter*).
- 26,100 more people will hear between 1 and 50 more planes which are loud enough to disturb them (above 65dB L<sub>Amax</sub>) on an average summer day (*Table 10.23 in the noise and vibration chapter*).

- 7,200 more people will hear between 50 and 100 planes loud enough to disturb them (above 65dB L<sub>Amax</sub>) on an average summer day (*Table 10.23 in the noise and vibration chapter*).
- 34,000 more people to be subjected to an increase in the amount of day time plane noise loud enough to have an adverse effect on them (*Table 10.22 in the noise and vibration chapter*).
- 36,700 more people will experience night time plane noise loud enough to have an observable adverse effect on them, and 700 more people will experience significant adverse effects (*Table 10.24 in the noise and vibration chapter*).
- 123,000 more people will be exposed to an increase in night time plane noise at levels which have observable adverse impacts (*Table 10.25 in the noise and vibration chapter*).

[1] Calculation of Sleep Disturbance and Annoyance impact in 2030 with and without the Development using 2014 Defra guidance, adapted to include dose-response relationships from the WHO Environmental Noise Guidelines for the European Region 2018."

### Contentious statement in the application and "loophole" relating to exempt aircraft

In the Application, LBA state that due to outdated planning conditions originating in 1993 (*Conditions 6a and 6b below*), they are not obliged to count aircraft that have a QC rating of less than QC0.5 towards their aircraft movements cap because they are exempt, and that they will continue to fly such planes in such numbers as they see fit whether they are granted consent or not.

This statement is disputed because when those conditions were set by LCC, there was an upper weight limit defined by NOTAM S45/1993 of 11,600kg for exempt jet aircraft. All commercial passenger jets weigh more than this by a factor of four or more.

From the Department of Transport 1993 definition of QC levels:

QC/0 (Exempt)	Less than 87 EPNdB, and in the case of jet aircraft, also having a maximum certificated take-off weight not exceeding 11,600kg
QC/0.5	Less than 90 EPNdB
QC/1	90 – 92.9 EPNdB
QC/2	93 – 95.9 EPNdB
QC/4	96 – 98.9 EPNdB
QC/8	99 – 101.9 EPNdB
QC/16	More than 101.9 EPNdB

From the current planning consent 07/02208/FU as referred to in the Application:

*Condition 6) During the night-time period, (2300-0700), no aircraft movements shall take place other than by:*

*a. Landings by aircraft classified as falling within Quota Count 0.5 and 1 for arrivals as defined in UK NOTAM S45/1993 issued by the Civil Aviation Authority and any succeeding regulations or amendments/ additions/deletions.*

*b. Departures by aircraft classified as falling within Quota Count 0.5 for departures as defined in UK NOTAM S45/1993 issued by the Civil Aviation Authority and any succeeding regulations or amendments/ additions/deletions*

...

*e. Exempt aircraft defined by UK NOTAM S45/1993.*

If NOTAM S45/1993 is the active Noise Restrictions Notice, then only exempt passenger jets weighing less than 11,600kg are allowed to fly.

However, NOTAM S45/1993 has now expired and has been superseded by AIP S007/2020 which redefines QC levels for modern fleets, and states that all aircraft movements must be counted, including new categories QC0.25, QC0.125 and QC0. The only exempt aircraft are light propeller driven planes used for airport maintenance and inspection.

If AIP S007/2020 is the active Noise Restrictions Notice, as LBA now say, then there are no such exempt passenger jets allowed to fly now or in the future.

This is important because the reason given in the Application for the need to modernise and introduce a noise quota is predicated on there being no effective control over quieter plane numbers which appears not to be the case. A noise quota is a good thing, but it should be used as a supplement to an overall cap on flight numbers along with all the other limitations and exemptions as specified in AIP S007/2020.

If LBA's interpretation of the disputed planning conditions is true, then by their own admission, they have been exploiting a loophole in the planning conditions for some years at the expense of the local community without informing the competent authorities, and they make it clear in the Application that they intend to carry on in this regard in the future. At the very least this issue should be resolved by the Planning Officers during this review of the flight regime operative at the airport and a suitable system put in place to close any potential loopholes.

#### Airport competition

Although LBA claim that the new system they propose would be comparable with restrictions in place at competing airports, it is, in many respects, less restrictive than they are. For example, noting the competitor airports they identify (*in Table 6.3 of the main document*):

- Their main rival, Manchester Airport, has, in addition to its noise quota budget, a rule whereby the number of night time operations must not exceed 7% of its total number of flights (LBA is expecting 17.5% of its flights to be at night- *see Table 10.4-8*), a ban on use of its new runway during night hours and a policy to reduce the area exposed to night noise to below what it was in 2001.
- Night flying restrictions at East Midlands Airport (LBA's second most important rival) are in place from 2300 to 0700 (2200 to 0600) in summer.
- LBA's third most important rival, Heathrow Airport, has, in addition to its noise quota budget, a cap on the total number of night flights allowed and night time restrictions on use of its most sensitive runway.

## Omissions and Clarifications

### Schools, and healthcare facilities

CAA document CAP1616 which sets out how airports should engage with their community and is considered best practice by ICCAN (Independent Commission on Civil Aviation Noise), says:

*Population counts must include population numbers, area counts, and noise-sensitive buildings (for example, hospitals, places of worship, schools)*

And...

*The questions a change sponsor might ask stakeholders to inform the development of the principles could include the following (these are offered as an example and this is by no means an exhaustive list): are there noise-sensitive buildings that should be avoided, and if so what and where (i.e. hospitals, care homes, schools, higher education establishments, and so on)?*

The Application provides data for 36 schools and 55 places of worship but no health care facilities, claiming that there are no hospitals affected to a degree to warrant individual noise assessment.

1. In the case of schools, one school, Queenswood Education Centre, has been omitted from the study with no explanation why. It is located directly under the SE flightpath, so is one of the most likely to experience high levels of noise, and it is a special needs school where it is reasonable to assume the students are likely to be more sensitive to noise - Galba requests that a survey is done to include this, any other special needs schools affected, and that they are individually assessed for noise in the Noise and Vibration appendices, and that they are informed in writing that they are likely to be affected by the development.
2. Preschools have been omitted from the Application with no explanation why. Preschools are arguably more affected by noise than primary and secondary schools as younger ears are more sensitive and the children spend more time doing outdoor activities, especially in summer when the mid-afternoon peak in flights occurs - Galba requests that a survey is done to include preschools and that they are individually assessed for noise in the Noise and Vibration appendices, and that they are informed in writing that they are likely to be affected by the development.
3. Care Homes have been omitted from the Application with no explanation why. Care homes care for the health and well-being of vulnerable people, many have on-site medical assistance, and in that respect should be classed as health care facilities - Galba requests that a survey is done to include care homes and that they are individually assessed for noise in the Noise and Vibration appendices, and that they are informed in writing that they are likely to be affected by the development.

### Noise contours

*See Reasons why an average noise contour is not very helpful*

4. Galba requests that Leq0600-0700, Leq1330-1530, Leq2300-2400 and Leq0100-0230 periods are modelled for 2018 Baseline and 2030 With Development so that a direct comparison of the noise levels today vs the noise levels with development can be made for peak time activities.
5. Galba requests that N60 and N65 maps are provided for the periods 0600-0700, 1330-1530, 2300-2400 and 0100-0230 for 2018 Baseline and 2030 With Development so that a direct comparison of the number of planes today vs the number of planes with development can be made for peak time activities.

#### Cost analysis of the impact to public health

See *The cost of health implications of the development to the taxpayer*

6. Galba request that the Application makes a long-term assessment of the cost due to health impacts of the development from 2018 baseline to 2050 including all years in between to give a true indication of the costs to the public purse for the lifetime of the proposal.

#### Noise contour maps and N60, N65 maps

7. The noise contour and N60, N65 maps provided in the Application are unclear to the extent that it's difficult to ascertain which areas surrounding the airport are affected by the various metrics on display. An example is given in Appendix 2 of this document which shows a high-quality map with easily identifiable terrain. Galba requests that similar high-definition versions of the maps in the Noise and Vibration appendices are provided.

## Health Implications

Below are some quotes from the Application confirming that extending flying hours and operating more flights will result in more noise and that it will have a detrimental effect on health.

*10.7.17 The effect of the Development in 2030 is therefore to increase night time noise exposure in all reported noise exposure thresholds...*

*10.7.26 At an individual receptor level these changes between LOAEL and SOAEL are not considered significant however could give rise to a significant effects in terms of health and quality of life over the population. [2]*

*10.7.28 A Webtag appraisal has been undertaken... This confirms that that whilst the changes are forecast to be 'negligible' or 'low', the Development will result in an adverse effect on health due to increased noise.*

[2] LOAEL - 'Lowest Observed Adverse Effect Level': The level above which adverse effects on health and quality of life can be detected - that can be sleepless nights, disturbance stress, Cardiac problems, mental health problems. SOAEL - 'Significant Observed Adverse Effect Level': The level above which significant adverse effects on health and quality of life occur.

The WHO Night Noise Guidance for Europe states that:

*“The thresholds are now known to be lower than LAmax of 45 dB for a number of effects. The last three sentences still stand: there are good reasons for people to sleep with their windows open, and to prevent sleep disturbances one should consider the equivalent sound pressure level and the number of sound events. The present NNG allow responsible authorities and stakeholders to do this. Viewed in this way, the Night noise guidelines for Europe complements the 1999 guidelines. This means that the recommendations on government policy framework on noise management elaborated in the 1999 guidelines should be considered valid and relevant for the Member States to achieve the guideline values of this document.”*

The Application has used Defra thresholds for its noise and disturbance calculations and modelling, which are higher than WHO recommendations. Had LBA followed WHO guidance, a recommendation echoed by Public Health England, the outcomes for all receptors would be much worse.

#### [The cost of health implications of the development to the taxpayer](#)

ES\_VOLUME\_2\_APPENDICES\_NOISE\_AND\_VIBRATION\_PART\_2\_OF\_4-3247551 includes a Webtag calculation. This is a way of monetising health impacts for comparison. The monetary value is assigned for a change in health impacts including: amenity (annoyance); acute myocardial infarction (AMI), dementia, stroke, and sleep disturbance; but not mental health, the impact on children’s learning or the costs and implications of low birth weight (see below).

The calculation compares 2024 with 2030; it is not explained why 2024 is more representative than 2018 baseline. The cost of health impacts due to noise is calculated to be £57,318,987 (2010 prices). This burden is taken by the taxpayer and council services.

One can extrapolate and assume there will be similar or higher costs over future periods, but LBA do not provide a health cost assessment for future years.

In the recent Heathrow planned development of a 3<sup>rd</sup> runway, similar costing exercises were done over a 60-year period and a staggering £20-£25 billion cost was calculated. While it is acknowledged that London is a much bigger city and LHR is a bigger airport, the figures show that the costs are enormous when taking into account the cumulative total over a longer period.

Galba request that the Application makes a long-term assessment of the cost due to health impacts of the development from 2018 baseline to 2050 including all years in between, to give a true indication of the costs to the public purse.

This data will feed into the economic assessment model which must be revised to include health costs.

#### [How does noise from air traffic affect health?](#)

In LBA’s own words from the Application:

*From ES\_VOLUME\_2\_APPENDICES\_HUMAN\_HEALTH-3247517*

13.2.61 *Environmental noise (e.g. noise from road, rail, and air traffic, and industrial construction) has been linked to a range of non-auditory health effects including annoyance, sleep disturbance, cardiovascular disease, impairment of cognitive performance in children, higher BP, hypertension or the prescription of antihypertensives, ischemic heart disease (e.g., myocardial infarction), cerebrovascular disease (e.g., stroke), neuronal disorders (e.g., dementia), and cardiometabolic disease (e.g., diabetes mellitus).*[3]

[3] Münzel, T. et al. The Adverse Effects of Environmental Noise Exposure on Oxidative Stress and Cardiovascular Risk. *Antioxidants & Redox Signaling* 28, 873-908, <https://doi.org/10.1089/ars.2017.7118.2018>

There are other significant effects of noise on health which are not considered in the Application, such as mental health or the impact on children's learning and new research is revealing just how toxic noise is, for example causing low birth weight.

#### Low birth weight for babies of mothers in proximity to the airport

In a recent study published by Lehigh University, Lafayette College and the University of Colorado, researchers have provided a causal estimate linking high-level noise exposure to a key health challenge, that of low birth weight (< 2,500 grams or approximately 5.5 pounds).

Described in *Residential Noise Exposure and Health: Evidence from Aviation Noise and Birth Outcomes*, their analysis revealed an increase of 1.6 percentage points--or 22 percent--in the risk of having a low birth weight baby among mothers living close to an airport, in the direction of the runway, exposed to noise levels over the 55 dB threshold (the threshold used by the EPA and the WHO for the protection of public health), and during the period when new flight pattern changes were more actively implemented at the airport.

On studying the daytime noise contour maps in Appendix 10.1 of the Application, it can be seen that the area affected by the 55dB threshold described in the study, when applied to LBA, includes much of Horsforth and Tinshill and beyond the ring road to Westpark and Hawksworth in the SE direction.

To the NW it affects the Eastern parts of Guiseley and Yeadon and extends as far out as Bradford Road (A6038) in Otley.

This is a shocking and, until now, unforeseen consequence of airport development on such an extensive residential area. To quote Professor Yang who led the study:

*"Our findings have important policy implications regarding the trade-off between flight pattern optimization and human health. This is especially important given the long-term negative impact of low birth weight on a range of later-life outcomes such as lifetime earnings, educational achievement and long-term health."*

#### Effects on mental health

From the Annual Report of the Chief Medical Officer 2017 - Health Impacts of All Pollution:

*Several studies have shown that neighborhood noise can have a negative impact on physical and mental wellbeing in adults, and one study found that exposure to neighbourhood noise at home is associated with conduct problems and hyperactivity in children. [4]*

[4] Dreger S, Meyer N, Fromme H, Bolte G. Environmental noise and incident mental health problems: A prospective cohort study among school children in Germany. *Environmental Research* 143 (2015)

*Noise acts as a psychosocial stressor [5], and the psychological reaction to it is influenced strongly by a number of personal, situational and environmental factors.[6]*

[5] Job RFS. Community response to noise: a review of factors influencing the relationship between noise exposure and reaction. *J. Acoust. Soc. Am.* 1988; 83: 991–10 01.

[6] Miedema HME, Vos H. Demographic and attitudinal factors that modify annoyance from transportation noise. *J. Acoust. Soc. Am.* 1999; 105 (6)

### Effects on education and learning

The World Health Organisation states that the learning of children in primary schools near airports is adversely affected by noise. Double glazed classrooms do not provide sufficient noise insulation.

There are 36 schools listed in the Application as being affected by proximity to the flightpath. These include Secondary and Primary schools, some close to the airport are very badly affected. However, the Application does not include preschools. It's probable that such establishments with young children are even more susceptible to noise, due to younger ears being more sensitive, putting down the crucial foundations for education, and not least, because they typically spend more time in an outdoor environment during the summer months and will be affected by the mid-afternoon peak in flight numbers. Galba requests that preschools are added to the receptor list for noise-sensitive locations and a noise profile carried out as has been done for other schools.

### Reading and memory

Many studies have found effects of aircraft noise exposure at school or at home on children's reading comprehension or memory skills (Evans & Hygge, 2007). The RANCH study (Road traffic and Aircraft Noise and children's Cognition & Health) of 2844 9-10 year old children from 89 schools around London Heathrow, Amsterdam Schiphol, and Madrid Barajas airports found that aircraft noise was associated with poorer reading comprehension and poorer recognition memory, after taking social position and road traffic noise, into account (Stansfeld et al., 2005).

Reading began to fall below average at around 55dB LAeq 16 hour at school but as the association is linear, (thus there is no specific threshold above which noise effects begin) any reduction in aircraft noise exposure at schools should lead to an improvement in reading comprehension, supporting a policy to not only insulate schools exposed to the highest levels of aircraft noise. The development of cognitive skills such as reading and memory is important, not only in terms of educational achievement, but also for subsequent life chances and adult health (Kuh & Ben-Shlomo, 2004). In the UK, reading age was delayed by up to 2 months for a 5dB increase in

aircraft noise exposure (Clark et al., 2006). The UK primary schools in the RANCH study ranged in aircraft noise exposure from 34dB LAeq 16 hour to 68 dB LAeq 16 hour. If we take a 20dB difference in aircraft noise exposure between schools, the study would estimate an 8-month difference in reading age.

### Trade-off: flights vs well being

From the Application document:

*5.38 The consultation clarifies that a noise cap, also known as a noise envelope, is any measure which restricts noise. The Government proposes advocating caps which are based on setting maximum noise exposure levels, such as contour area or noise quota. Noise caps should also consider the effect of night flights, given the health costs associated with sleep disturbance. However, the document notes that “These costs need to balance the benefits of night flights and any restrictions should be proportionate to local circumstances”*

One side of this balance are the profits of airline operators and AMP Capital (the airport’s owners based in Australia); the *convenience* of people being able to fly locally (*checking in at 3am*); and LBA’s claims about economic benefits of the development (these are dealt with elsewhere by Galba).

The other side of this balance is the health and well-being of tens of thousands of members of the public. Many of whom will not fly themselves and will be elderly and school children. 70% of all flights in Great Britain were taken by 15% of adults according to analysis of a 2014 government survey.

## Flying Hours

It is important to understand that a new terminal building is an attractive proposition that few people would object to, but the proposed extension to flying hours is down played even though this deserves the most scrutiny.

Paragraph 3.8.16 of the Environmental Impact Statement makes it clear that LBA intend to take advantage of the proposed relaxation of restrictions on night flying “*immediately upon grant of the planning permission*” but they make no commitment to build the new terminal.

In the current climate (LBA made a £3m loss last year and that will exacerbated by the lock-down this year) it’s very unlikely that the new terminal building will be built for years to come due to costs, but extending flying hours is cheap and gives the airport an immediate boost to revenue, assuming they can indeed attract new airlines in the wake of Covid-19. Airlines such as British Airways and Ryanair are now pulling out of LBA so their customer base is shrinking, not increasing.

To operate two or three return flights per day to destinations in Southern Europe or the Canaries, LBA has to start flying at 6am, or earlier, and fly until the early hours of the morning. It also means the people of Leeds will experience a peak during mid-afternoon when many of these flights return from their morning trip and reload for the afternoon trip. It is necessary to add in the mid-afternoon peak when discussing additional flights and noise; a very important point which is not very well understood in the local community or mentioned in the Application.

All schools identified in the Application as being under the flightpath will have outdoor activities going on during the mid-afternoon turnaround peak in the noise profile.

To do accommodate more flights, LBA want to scrap the current flight regime of a restricted number of night time flights permitted between 11pm to 7am and replace it with a quota system that operates between 11.30pm and 6am. They also want to allow late-running flights to land as late as 1am, and the proposed new quota system allows noisier planes to operate at night than the current regime. This is a backwards step and cannot be described as mitigation. See Quota System below.

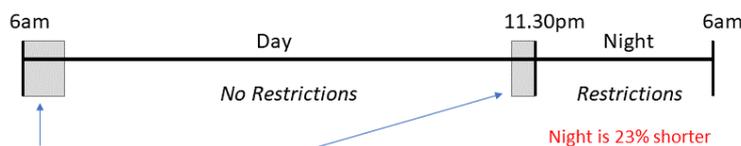
LBA want to create two shoulder periods 6-7am and 11-11.30pm, these will have all restrictions removed apart from an overall noise contour. As long as they don't exceed their overall noise contour, LBA can fly as many planes as they can handle during these shoulder periods and any night time restrictions that currently exist at these times will be lifted.

Now



1200 Winter  
2800 Summer (15/night)  
QC1 Arrival  
QC0.5 Departure

Proposed



LBA want to create these shoulder periods so they can fly without restrictions on the number and noise of individual planes

Night is 23% shorter

Cap on numbers replaced by Quota Count of 1375 - equivalent of 20 Airbus 320s every night in Summer

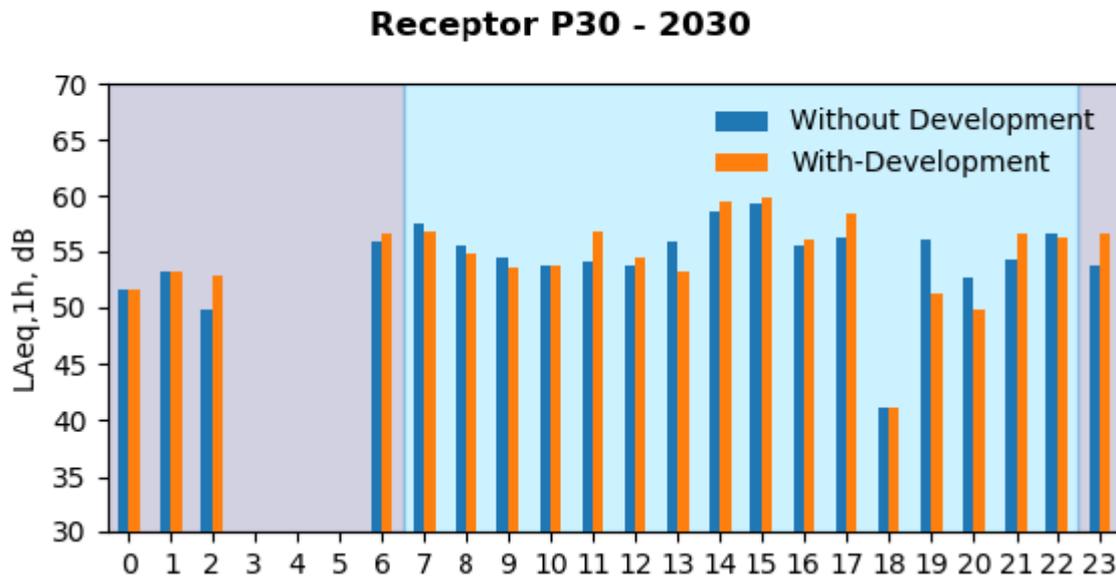
QC1 Arrival  
QC1 Departure

LBA propose an overall Noise Contour Cap for our "protection"

Late night flights

The figure below is a receptor location on the SE approach to the airport. This, and the other graphs in the same section in the Application show the hourly average noise at various receptor locations affected by the flightpath on a typical summer day. It can be clearly seen that LBA intends to use its night time quota to fly planes up until 2am on a typical summer day. The height of the bars in the early hours suggests that this is a relatively high number of flights, almost as high as day time, and indicates that it is expected to occur on most nights, if not every night. These flights will be the last trip of the day returning from Southern European destinations.

Figure 10.4-85: Short-term Analysis at Receptor P30 - Lister Hill Baptist Church

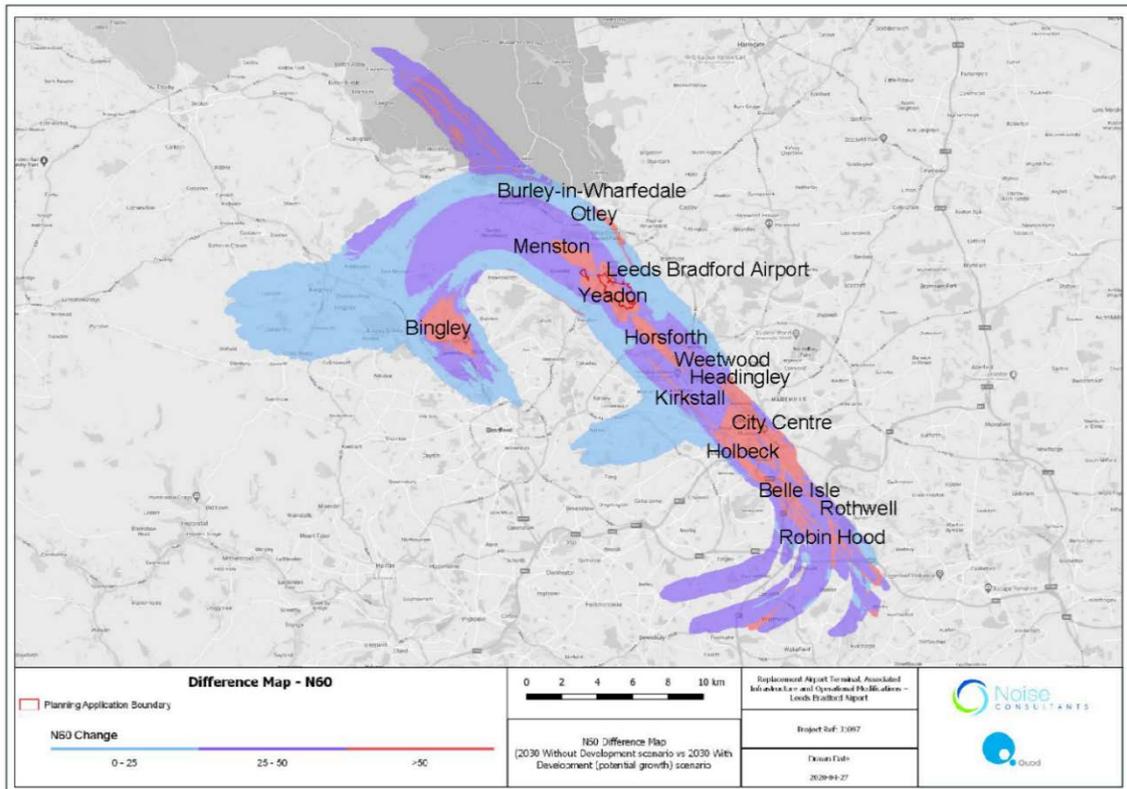


#### 6pm anomaly

In the Noise and Vibration Appendices 2 and 3, the hourly receptor noise charts show that 6pm is predicted to be the quietest time of the day, in many cases below 30dB, which is less than agglomeration (background noise). In other words, LBA are predicting no flights (or almost none) for the hour either side of 6pm. However, from experience, around 6pm is in fact a peak time, this is evident now that flight numbers have begun to build up again after lockdown. Apart from this being unbelievable, how can LBA claim to predict with any certainty that flight demand will follow this pattern in 10 years' time? Can LBA provide evidence for this apparent anomaly in the data.

#### Night time noise exposure over Leeds

The map below shows areas where, according to LBA's analysis, people will hear a given number of flights at, and above, 60dB at night if the development goes ahead compared to it not going ahead (60dBA being a recognised threshold for sleep disturbance at night time). As well as the loudness of noise, it will cause additional nuisance due to the sheer number of flights. You can see that it affects about half of Leeds, plus many people to the NW in the countryside where the ambient background noise will make it even more noticeable. Those living in the orange areas will experience over 50 new flights per night. Those in the purple areas, between 25 and 50.



It can be seen that many areas of the city centre and South Leeds are badly affected even though they are relatively distant from the airport. NW Leeds and Bingley are also significantly affected.

## QC Quota System

A Quota Count (QC) is a number assigned to each model of plane that indicates how much noise it makes. The higher the number, the noisier it is.

The current regime restricts the total number of night flights to 1200 in winter and 2800 in summer. LBA are proposing to scrap these absolute limits in favour of a quota count of 1375 per year. As each plane has a QC number, that means that 1375 planes with a QC of 1 can fly, or, 2750 at QC 0.5, or, 5500 at QC 0.25 or 11,000 at QC 0.125. Additionally, these flights will be concentrated over 6.5 hours not 8 hours, a 23% shorter period.

### Noise classification

Effective perceived noise in decibels, EPNdB	Quota Count
Below 81	0
81 – 83.9	0.125
84–86.9	0.25
87–89.9	0.5
90–92.9	1
93–95.9	2
96–98.9	4
99–101.9	8

Some modern planes such as 737max have these lower QCs (<QC0.5).

In this system, there can be twice as many flights at 86 dB (QC0.25) than at 87 dB (QC0.5), but the difference in noise to you will be imperceptible. The airport claim they are modernising the noise control regime, but without the inclusion of an absolute cap on flight numbers the situation has the potential to be much worse.

Note that 86dB is still very loud, and after 6am, LBA can fly as many noisy planes as they like subject to the noise contour.

### Noise Quota Relaxation

The current regime limits the night time QC to 0.5 for departures and 1 for arrivals (LCC planning decision 07\_02208\_FU—2813243). But in appendix 10.7 of the current Application, LBA say they will allow QC of 1 for departures AND landing, so they proposing to relax the current rules which will lead to significantly more noise. This is not explicitly mentioned in the Application, but revealed by reading the conditions attached to the existing planning consent.

### Transparency

CAA document CAP1616 states that:

*CAP1616 Part 3: Airspace information*

*474. When a change is identified, information about it should be made available, in an accessible form which a layperson can understand, to help to provide context as to why the noise effects they are experiencing may be changing.*

It is normal to experience as much noise when a plane arrives as when it takes off. Approaching LBA, planes come in long and low over Leeds city centre with their wheels down, and because they are travelling relatively slowly, people on the ground are subject to more noise for a longer period than that of a departing plane which gains height quickly. People who live very close to the end of the departure runway will experience more noise on departure.

LBA claim to be introducing a fairer and more up-to-date system for controlling plane noise, but scrapping the 0.5 QC noise cap introduced in 1993, indicates that LBA want to relax the quota count to allow noisier planes to operate at night rather than to protect the public.

*From 20\_02559\_FU-PLANNING\_REPORT\_-\_APRIL\_2020\_FINAL-3245735*

*...Moreso, it is demonstrated in the ES that re-framing the noise controls in the manner proposed, will bring them up to date and better reflect latest policy direction, and guidance on mitigation, whilst providing appropriate levels of mitigation to protect local communities from any adverse impacts of the development.*

As an example, under the proposed system, LBA will be able to fly the equivalent of 20 flights (10 landings and 10 take-offs) by Airbus 320s every night (2330 to 0600) during the six months of summer.

# Reasons why an average noise contour is not very helpful

An average noise contour smooths out the peaks and gives an overall noise (dB) contour. However, it is an individual noise event that disturbs sleep. It's more important to know the number of flights and peak times. This can be disguised by using contours.

This quote from NATS (National Air Traffic Services) says the same thing. This link provides further reading. <https://www.nats.aero/environment/aircraft-noise/>

## **Airport Noise**

*SEL is the sound exposure level of an aircraft event, measured in dBA of a one second burst of steady noise that contains the same total A-weighted sound energy as the whole event. SEL is often used to characterise the likelihood of sleep disturbance relating to aircraft noise as research has found that single event metrics are a better predictor of sleep disturbance than long term average noise metrics such as Leq16h*

The current Leq16 (day) and Leq8 (night) measurements do not reflect the fluctuation in the number of flights around the peak times early in the morning, late at night and mid-afternoon and hides the peaks.

The guidance that LBA say was used for the noise contour calculations agrees; the period has to reflect the reality. So the peak times must be singled out and modelled separately.

From *The European Civil Aviation Conference report on Standard Method of Computing Noise Contours Around Civil Airports, 201623*

<https://www.ecac-ceac.org/documents/10189/51566/01.+Doc29+4th+Edition+Volume+1.pdf/bfde6e09-b46b-44e1-b73f-388fc3527aaf>

*P14 Some situations however cannot readily be dealt with by simple Leq assessments. This is especially true when contributory noise events vary substantially and/or irregularly. Care has to be taken to consider the distribution of events when choosing the most appropriate assessment period. For example (outside aviation) 8-hour Leq may provide a good indication of noise exposure on a factory production line if the pattern of noise changes little from hour to hour during an 8-hour working day. It may also provide a good basis for comparing noise exposures between different production lines. But care must be taken to ensure that the period chosen is reasonable for all the production lines being compared. In other words, the period over which Leq is calculated has to be relevant to the pattern of noise exposure and any comparisons have to be on the basis of like for like. The same principle applies to noise from aircraft and from other sources.*

Galba requests that Leq0600-0700, Leq1330-1530, Leq2300-2400 and Leq0100-0230 periods are modelled for 2018 Baseline and 2030 With Development so that a direct comparison of the noise levels today vs the noise levels with development can be made for peak time activities.

The same request is made for N60 and N65 maps.

## **Reasons why the modelling which LBA have used to justify their Application cannot be trusted**

All the modelled predictions in the Application documents rely on an assumed modernisation of the aircraft fleet in response to an improved offer from LBA. This is unlikely to happen soon for reasons listed below along with many other uncertainties.

Improvements in noise emitted from planes took place between the late 1960s and the late 1990s and is evident in planes in production now. Whether many of those quieter planes will come in to service in the next decade is now in serious doubt as airlines struggling to recover from Covid 19 do not have the cash to replace their fleet and will keep their ageing planes in operation for as long as they can. Planes don't become uneconomical to operate for about 30 years.

The improvement since 2000 has been more limited (*CAP 1165 Managing Aviation Noise*) and is now incremental. The industry puts it at no more than 0.1 or 0.2 decibels each year.

Since 2018 when the Applications dataset was devised:

- Boeing 737max are grounded – This from Wikipedia suggests that it won't be flying soon and undermines modelling that makes assumptions 10 years into the future. It is unknown what improvements will be made and what other planes might go out of service in the meantime.

*As of October 2019 the disagreements over various system revision details, Level of Involvement (LoI) between the two leading aviation authorities, FAA and EASA, as well as Boeing's new recommendation of simulator training could delay the 737 MAX return to service.*

- Flybe have gone into administration.
- Monarch have gone into administration - this might have happened before modelling but it shows the futility of trying to make long term predictions on operator demand.
- British Airways have pulled out of LBA.
- At the time of writing Ryanair's schedule for summer 2021 does not include any flights in or out of LBA.
- Passenger number recovery from Covid-19 is unpredictable.
- All airlines post-Covid-19 will be paying back large bailout loans (£300m for Jet2) which means that capital expenditures will be drastically cut and no new planes will be ordered until the future can be guaranteed and the cash has once again begun to flow.
- There is high possibility of aviation fuel being taxed to rein in climate issues.
- There is general turmoil and decline of routes: This quote from John Cunliffe (LBA Commercial Director) at LBA's 11.12.19 Airport Consultative Committee:

*The summer months have proved difficult for passenger numbers with LBA showing a negative % vs. 2018. This is reflected across the industry, with many UK airports also showing negative growth during S19. The current economic climate and difficult landscape in the UK has clearly had an impact on people's summer holiday plans.*

All of this casts doubt on the worthiness of demand-modelling that requires long-range assumptions about a business in turmoil.

In addition to the above uncertainties, modelling was only validated on what the modelers have called a “*relatively low number of noise monitoring terminals at the airport*” and so had to rely on extrapolated data. Other airports have many more monitoring terminals. There is no explanation of the reason for not using data from other sites, such as that from mobile monitoring sites, or from equipment at the Becket Park University campus. Finally, modelling noise on the ground uses ideal conditions and cannot fully predict your local experience. Reflections of noise from hard surfaces, especially in a city, can add >3dB on modelled data, so receptors (the population at large) often experience much more noise in reality than predicted.

ICCAN, in their recent report, *A review of aviation noise metrics and measurement* recommend the provision of mobile noise monitoring stations that can be deployed in response to public concerns about noise at specific locations.

## **Noise Abatement Measures**

The Application makes repeated reference to the Balanced Approach when talking about noise mitigation. One of the four pillars of the Balanced Approach is Noise Abatement Operational Procedures. <https://www.icao.int/environmental-protection/Pages/noise.aspx>

In the Application, LBA mention that they would encourage new noise abatement procedures during the upcoming National Airspace review, however, they don't mention that there is already a noise abatement procedure in place. Again, transparency is lacking.

From LBA's AIP (the airport's user guide for pilots and air traffic controllers):

<https://www.aurora.nats.co.uk/htmlAIP/Publications/2018-10-11-AIRAC/html/eAIP/EG-AD-2.EGNM-en-GB.html>

*“Section AD 2.21 NOISE ABATEMENT PROCEDURES:*

*The following Noise Preferential Routeings and Procedures shall apply to jet aircraft (except military aircraft).*

*These procedures may at any time be departed from to the extent necessary for avoiding immediate danger.*

*Operators of aircraft using the airport shall ensure at all times that aircraft are operated in a manner calculated to cause the least disturbance practicable in areas surrounding the airport.*

*Aircraft will use Runway 14 for landing and Runway 32 for take-off, whenever this is possible, having regard to wind, cloud base, approach aid limitations and aircraft performance and requirements. In the event of marginal conditions the runway to be used is at the aircraft*

*Commanders discretion. However, violation of the selective runway procedure cannot be acceptable for expedite reasons, and it is regretted that inconvenience in taxiing distances and/or airborne routeing must be accepted in the interest of reducing aircraft noise intrusion on the local environment.”*

This says that ALL flights should take off and land to the North West, thus protecting the city centre population in favour of a green passage to the NW. This noise abatement procedure seems to be routinely ignored. Flights operate over the city in all conditions despite the above rule expressly forbidding travel in that direction for “*expedite reasons*”. Wind direction can override the ruling, but it’s clear to see that flights operate over the city even on calm days and nights, and it’s difficult to believe that adverse wind conditions persist every single day and night. Can LBA be trusted to abide by the noise abatement procedures they allude to (but are far from being developed yet) if they don’t obey the current rules?

They also promise to consider a number of other measures to mitigate the effect of noise, but many are (theoretically) in place already, others are vague and others should have been in place already.

## Appendix 2

Example noise contour map clearly showing terrain beneath. This is a zoomable PDF with a high-resolution map beneath.

