

Dear Sirs,

## Leeds Bradford Airport Airspace Change

Respecting the Leeds Bradford Airport Airspace Change Proposal which appeared on the CAA website on 18<sup>th</sup> January 2019, we request that this application be called in for review by the Secretary of State on the grounds that one aspect of the proposals is likely to result in a net increase of more than 10,000 people becoming subject to aircraft noise in excess of 54 Db L<sub>A eq 16hr</sub>.

We are aware that the ASC sponsors' Consultation Addendum Document indicates that the increase in affected population will be in the order of 400 but, crucially, the analysis on which they based this estimate did not take account of the proposed shallower ascent profiles.

Paragraph 3.5.4 of the Consultation Addendum states that the LAeq modelling was unable to show the effect of changes in climb profiles and that the estimates of LAEQ therefore represent a "theoretical worst case noise outcome; in reality we expect the noise levels to be lower than those modelled". This claim is made in the context of paragraph 3.4 which indicates that "the new arrangements will allow aircraft to make best use of modern performance characteristics, one of which is to allow aircraft almost unrestricted climb rates to maximum performance. This will therefore result in aircraft being at a similar or higher height than they are today". We understand the logic of the claim. However, a document sent by LBA to the MP for Leeds NW1 indicates that, under the proposed arrangements "aircraft will take off at reduced thrust capacity ..... ascents will be shallower" and an accompanying diagram (appended as Figure 1 below) indicated that, under the revised procedures, aircraft would cover about twice as much ground before reaching 3000 feet as they do under current procedures<sup>2</sup>. Paragraph B262 of CAP725, indicates that the replacement of high-thrust-steep-ascents by low-thrust-shallow-ascents will increase sound exposure at ground level (because the reduction in sound emitted is more than offset by the decrease in attenuation). In which case, the L<sub>Aeq 16hr</sub> contours shown in the consultation document, rather than representing a theoretical worst case, would represent a significant <u>underestimate</u> the post-change noise levels.

Figure 2 shows the area to the southeast of the airport and includes the current  $L_{A\,eq\,16hr}$  contours as estimated in LBA's Consultation Addendum. The blue zone shows is the area which we think will be brought within the 54Db  $L_{A\,eq\,16hr}$  contour if aircraft take off more gradually as per Figure 1. We have estimated the extent of the blue zone based on our understanding that aircraft currently reach 3000 feet near waypoint NME01<sup>3</sup>. NME01 is 11352 feet from the end of the runway and so we have assumed that the  $L_{Aeq\,16hr}$  values currently experienced around and beyond NME01 would, with shallower climbs, be experienced at and beyond 22704 feet from the end of the runway (i.e. in the vicinity of Burley Park rail station).

<sup>&</sup>lt;sup>1</sup> "Airspace Change Summary Document" emailed to Alex Sobel MP in August 2017 and attached

<sup>&</sup>lt;sup>2</sup> Unfortunately the horizontal scale of the diagram was not given but this conclusion can be drawn from it.

<sup>&</sup>lt;sup>3</sup> We have been unable to obtain data from LBA to verify this but we have assumed an initial ascent at 15° until 1200' asl at which point the rate of ascent reduces to 10°.

The population of the blue zone is around 14500 (33% of Headingley and Hyde Park Ward, plus 5% of Little London Ward, plus 8% of Weetwood Ward, plus 2.5% of Kirkstall Ward). The net number would be slightly less than this because of reduced noise close to the runway but the net increase would be around 14000.

We are well aware that our estimate of the blue zone in our Figure 2 is unlikely to be accurate, but we believe it to be the best estimate available in the public domain. We are aware that LBA have, since submitting their proposal to CAA, stated that Figure 1 is misleading (although it, together with its accompanying text, was produced and circulated by them as part of the consultation process). However, they have not disowned it in writing nor have they produced a replacement diagram, nor do any of their documents state that the new ascent paths will NOT be shallower than they are currently. We therefore think it prudent to submit this call-in request.

Yours sincerely



Attached document: LBA Airspace Change Proposal Summary

Figure 1: LBA's Diagramatic Representation of Continuous Ascent Profiles

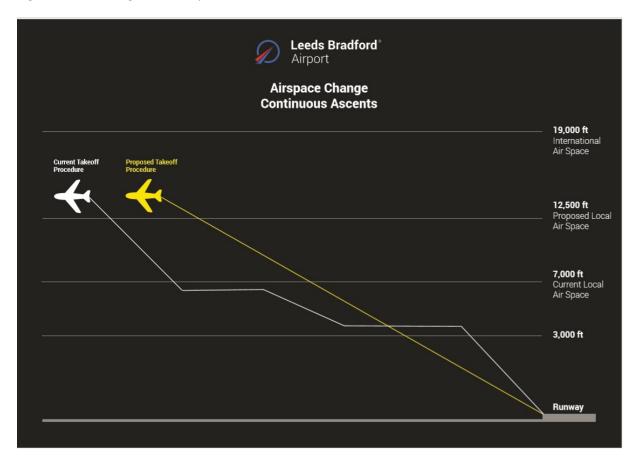


Figure 2: Our Best estimate of impact of Shallower Ascent Profiles on Aircraft Noise at Ground Level (54 Db  $L_{A eq \ 16hr}$ )

