Doc. No. SSE/32
Case Ref. 2032278

Appeal by BAA Ltd and Stansted Airport Ltd following the refusal by Uttlesford District Council of planning application UTT/0717/06/FUL

Proof of Evidence by Stop Stansted Expansion in Rebuttal of BAA/2/a by Mr Jeffrey G Charles (Air Noise)

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1 INTRODUCTION

1.1 Personal details

1.1.1 This rebuttal proof of evidence has been prepared on behalf of Stop Stansted Expansion ('SSE') by Mr Martin Peachey, MA Cantab (Mechanical Sciences).

1.1.2 I am now retired after 35 years in business development and management for commercial companies in airport systems, facilities management and air traffic management following 11 years in the Royal Navy as an engineer officer.

1.2 Scope of rebuttal evidence

1.2.1 This rebuttal proof does not attempt to deal with every issue raised by Mr Charles with which I disagree. Absence of comment in this rebuttal proof on any matters raised by Mr Charles in his proof of evidence should therefore not be taken to indicate agreement with those matters.

2 REBUTTAL POINTS RELATING TO BAA/2/A

2.1 Para 6.4.4:

'In PPG 24 (CD/110) the Government advises that a change of 3 dB(A) is the minimum perceptible under normal conditions. The Department for Transport in the Transport Analysis Guidance (TAG) unit 3.3.2, The Noise Sub-Objective, November 2006 advises that for freely flowing road traffic a difference of about 3 dB in noise level is required before there is a statistically significant change in the average assessment of nuisance. My Appendix D reproduces that recent advice from the Department of Transport.'

2.1.1 I agree that PPG 24 (CD/110) says that a change of 3 dB(A) is the minimum perceptible under normal conditions. However it is clear that this refers to single events or ‘steady state’ continuous noise. Aircraft noise suffered by the community does not emanate from either of these two definitions and BAA is incorrectly using this text from PPG 24 to support its claims for changes in noise levels. This particular part of PPG 24 does not relate to multiple sound events such as aircraft over-flying.

2.1.2 Throughout para 6.4, changes in noise levels are described using the LAeq measurement. This LAeq measurement relates to multiple sound events that are averaged over a period of time. It combines the number of events with the noise levels of each of these events.

2.1.3 A 3 dB(A) increase in the noise of each aircraft would not be particularly perceptible. But a doubling of the number of events, each one having the same noise level, would give rise to the same 3 dB(A) increase using this LAeq methodology. A doubling of the number of events would be significantly noticeable.and it is the increase of the number of aircraft movements that gives rise to severe noise disturbance in the community. A 3dB(A) increase in a LAeq measurement cannot be dismissed as barely perceptible.

2.1.4 BAA's reference to the DfT's Transport Analysis Guidance (TAG) is irrelevant since it currently only relates to the noise impacts of surface transport sources i.e. road and rail. Indeed the guidance states:

2.1.5 'The Department has separately commissioned research into the attitudes to aircraft noise. It is intended that findings from this research will be integrated into this TAG unit in due course.'

2.1.6 Hence this particular advice concerning freely flowing traffic is completely inappropriate to aircraft movements. But even in the case of road and rail noise the guidance states:

2.1.7 'The assessment of nuisance however could still be affected even if there is only a 1 dB change in the noise level if the change is associated with changes in the view of the traffic, or if the change occurs suddenly.'

2.2 Para 6.4.5:

2.2.1 BAA uses the report of the Inspector at the Manchester Runway 2 Inquiry (1994-95) to support its claim for the effects of changes in noise levels. However this should not be given any weight since more recent evidence from the report of the Inspector at the Heathrow Terminal 5 Inquiry December 2000 (published 2001) provides findings to the opposite effect. This T5 report clearly indicated the deficiencies of the LAeq system, particularly in reference to the relationship between the noise of individual events and the number of these events.

2.3 Paras 7.2.15 to 7.2.17:

'The size of the 43.6 km2 contour in Condition AN1 is important as this represents a level of noise impact that has recently been considered acceptable by UDC in the context of a materially lower level of throughput.

My Figure 5 indicates that in the 25 mppa case in 2014, with the airport constrained by condition MPPA1, a smaller 57 dB Leq 16hour contour area is forecast at 27.5km^2.

If the G1 application is approved, Figure 6 shows the 57 dBLeq 16hour contour area for the 35 mppa case at 33.9km^2. Thus, even with the approval of the G1 application, the resulting noise contour will be within that considered acceptable by UDC as recently as 2003.'

2.3.1 The planning permission granted in May 2003 included the Condition AN1 noise cap limiting the 57 dB Leq 16hour land area to a maximum of 43.6 km^2. Four years on it is now clear that the 2003 land area cap was a massive overprovision. The latest available official 57 dB contours cover a land area of 27.5 km^2 and BAA states that it would remain within 27.5 km^2 even with a throughput of 25 mppa.

2.3.2 Following the 2003 permission, in the subsequent two years for which official noise contours are available, whilst the ATMs have increased by nearly 18%, the 57 dBLeq 16hour land area has actually reduced by nearly 14%.

2.3.3 The basis of this AN1 condition, relying as it does on the Leq metric in general and the 57 dBLeq contour in particular, is a wholly inadequate indicator of aircraft noise annoyance. I profoundly disagree with BAA's claim that, because the 43.6km^2 or even the 33.9 km^2 land area cap for the 35 mppa case will not be exceeded, this would be an acceptable noise climate for the community.

Para 7.2.51:

'I therefore agree with the consultant for UDC that the HIA has "overstated" the potential effect on reading impairment in schools. In other words the comment in the HIA that "the difference in the reading age delay would be at most two weeks" should not be taken as meaning that it will be as much as two weeks; it is in fact likely to be negligible.'

2.3.4 I disagree with BAA's evidence concerning the potential effect of the noise impact on schools and with the above conclusion that the difference in reading age delay is likely to be negligible. BAA fails to properly interpret the RANCH study results which extend previous findings showing that aircraft noise impairs cognitive development in children. BAA totally ignores the results of the West London schools study[1] and the highly regarded Munich study[2] which reinforce the RANCH evidence.

2.3.5 BAA's conclusions concerning the noise impact on schools based purely on the ten schools in the Essex School Survey Findings given in Table 12 are extremely suspect. The surveys were carried out in 2004 and only state the existing measurements at that time. BAA has not given a prediction for the 35 mppa case in 2014. The dB LAeq 30min values quoted in Table 12 for three of the ten schools are lower than those given in the actual original technical reports. In one case, the contribution due to road traffic noise is ignored which adds more than 6 dB to the quoted values. The survey does not include schools in Hertfordshire or any independent schools. The quoted views of the teachers in 2004 are at variance with views now being expressed in the community today. The conclusion of the assessment by BAA is seriously flawed.

[1] West London Schools Study, Matsui et al, Noise and Health 2004 'Children's cognition and aircraft noise exposure at home' [SSE/19/c Appendix 12].
[2] Hygge, Evans and Bullinger 'A prospective study of some effects of aircraft noise on cognitive performance in schoolchildren' [SSE/19/c Appendix 13].