

## Aviation Noise discussion paper

I am disappointed to discover the Department of Transport's Draft Aviation Policy Framework (APF) (2012) concluded that 'the balance of probability is that people are now relatively more sensitive to aircraft noise than in the past'.

In my opinion this conclusion has been drawn too rapidly, whilst leaving unexplored a number of other options. Given the high degree of distrust both of the airports compiling the contours, and the CAA being neither truly independent from industry and lacking resources to truly challenge data, questions have to be asked as to the accuracy of the current maps.

Given the increasing disquiet of people living under the flight path and the near universal conclusion that noise is getting worse rather than better, greater scepticism of the noise contour maps should be levelled.

Whilst the mathematical models to calculate the contours looks adequately complex, the output from these models is only as good as the aircraft manufacturer data used as input. Very little real world data is collected, especially for approaching aircraft noise, and where this disagrees with the model it has (from what I can see) been ignored.

As evidence the Barnes noise monitor as part of a 2012 measurement study (on approach, and near the 57db contour as calculated) clearly demonstrates the Rolls Royce powered A380 (EA38R) makes an identical noise measurement (Lmax, dBA at 71.4) to the older Rolls Royce powered 747 (B744R). **Please see Table 1 and investigate how noise contour maps were adjusted to take account of this new data (from what I can ascertain they weren't).**

This particular aircraft is especially significant given the large number of BA's fleet of 747s due to be replaced with the Rolls Royce powered A380. Given the large number of readings taken (i.e. 442 for the 747 and 34 for the A380) this study is both statistically significant and critically important to the debate given the new aircraft has been categorised a whole two noise groups lower at a quite unbelievable QC 0.5.

It also stands in stark contrast to the CAA's paper 'Noise Data for the First Three Years of Scheduled Airbus A380 Operations at London Heathrow airport' that concludes '(a)rrival noise levels are also lower than for the Boeing 747-400, although by less than expected in the case of the Rolls Royce powered A380 variant.

A history of over optimistic noise assessment goes back over many years with the Boeing 747 being well known to exceed its own QC rating (which should have prohibited it from night time operations).

Rather than conclude that residents are getting more sensitive to noise and fiddling with calculations based on different averages and maximums, it is imperative this commission takes a root and branch re-assessment of noise monitoring based on real world measurement rather than circumspect industry input and very complex models.

To be believed to be independent this commission must sanction its own independent data collection and noise measurement study.

Table 1: Average measured noise levels of Heathrow westerly arrivals, February 2012

Aircraft Type (ANCON Category)	SEL, dBA						Lmax, dBA					
	Richmond monitor (Runway 27L)			Barnes monitor (Runway 27R)			Richmond monitor (Runway 27L)			Barnes monitor (Runway 27R)		
	Mean	SD	Count	Mean	SD	Count	Mean	SD	Count	Mean	SD	Count
B733	82.4	1.2	90	78.6	1.9	95	72.7	1.5	90	68.0	2.3	95
B736	83.5	1.5	133	79.4	2.8	128	73.1	1.8	133	68.2	3.2	128
B738	82.8	1.5	144	79.0	2.7	116	72.5	1.6	144	67.8	2.8	116
B744G	88.3	0.9	39	84.2	1.6	35	77.3	0.9	39	72.8	1.7	35
B744P	88.2	1.5	57	83.2	1.5	64	77.6	1.3	57	72.0	1.5	64
B744R	88.3	1.0	353	83.0	1.4	442	77.5	1.1	353	71.4	1.6	442
B757E	83.4	1.3	85	77.3	2.6	83	72.4	1.4	85	65.9	2.5	83
B763G	84.2	2.2	77	80.1	2.3	89	73.9	2.4	77	69.5	2.9	89
B763P	84.1	1.7	51	78.8	1.7	81	73.2	1.6	51	67.3	1.7	81
B763R	85.5	1.1	236	78.8	1.7	245	74.4	1.1	236	67.1	1.9	245
B764	85.1	2.4	107	79.2	2.4	45	74.3	2.5	107	67.6	2.5	45
B772G	84.6	1.3	246	78.1	2.0	235	73.3	1.5	246	66.2	2.2	235
B772P	85.6	0.8	33	80.4	2.1	46	74.8	1.0	33	69.9	2.6	46
B772R	85.5	1.2	238	79.2	2.7	243	74.3	1.5	238	68.0	3.5	243
B773G	86.4	1.7	210	80.0	2.8	214	75.5	1.9	210	68.2	2.8	214
EA319C	81.9	1.6	185	79.0	1.7	176	71.6	1.6	185	67.9	2.0	176
EA319V	80.8	1.6	1039	78.1	2.3	1111	70.4	1.6	1039	67.2	2.5	1111
EA320C	82.6	1.5	620	79.0	2.0	674	72.3	1.6	620	67.9	2.3	674
EA320V	80.3	1.6	1048	77.9	2.4	1132	70.1	1.5	1048	66.9	2.6	1132
EA321C	82.8	1.7	201	79.0	2.0	185	72.6	1.8	201	67.8	2.0	185
EA321V	80.8	1.8	483	77.6	2.0	506	70.4	1.7	483	66.3	2.1	506
EA33	85.8	1.2	191	82.5	2.3	212	75.1	1.6	191	71.1	2.8	212
EA34	85.6	1.1	79	81.6	2.2	86	74.7	1.1	79	69.7	1.9	86
EA346	86.6	0.9	195	82.6	1.8	201	75.4	0.9	195	70.6	1.8	201
EA38GP	86.1	0.9	21	82.4	2.2	21	74.8	1.1	21	70.4	2.2	21
EA38R	87.2	0.9	44	83.6	1.8	34	75.7	1.2	44	71.4	2.1	34

– a concerned resident not currently in the 57dBA contour – as measured.