



Aircraft Noise and How to Complain

Noise annoyance is inevitably a subjective issue. Even the earliest social surveys conducted around Heathrow in the 1960s showed that community reaction to any given level of aircraft noise was highly variable and subject to a range of factors such as age and occupation.

Two main factors were identified in these early studies as being in the main responsible for generating noise complaints from communities regularly over flown. These were the maximum noise level measured as an aircraft passes over (expressed in decibels - dB) and the number of events heard.

A government study undertaken in the early 1980s (The ANIS Study) concluded that the noise and numbers components of community annoyance could be traded on an equal basis and noise annoyance described by reference to long term "average" noise (decibel) levels.

The "equal energy" principal has since been adopted for assessing community annoyance at most airports around the world. Areas at risk of annoyance are defined by the use of contours, similar to that found on land height contour maps. The construction and interpretation of airport noise contours however varies markedly from country to country.

The findings of the 1980 ANIS study continue to underpin UK aviation policy even though the most recent social survey undertaken in the UK on aircraft and noise - the "ANASE" study found that the numbers of aircraft heard are now more important in terms of causing noise annoyance than the individual noise levels of overflying aircraft. The ANASE findings have since been supported by even more recent studies undertaken in mainland Europe.

Since the 1980s the number of flights at Heathrow has nearly doubled - an extra 600 flights a day - there could be another 710 every day with Runway 3. At peak periods aircraft may land at 60 second intervals, with a daytime average of just over 80 seconds. Departures are similar. There are more flights at night and in the early morning and late evening periods - times that people say they find most annoying. Many communities around Heathrow now suffer a constant background of sound from departing and arriving aircraft during the day.

Despite more activity the official noise contours around Heathrow airport have shrunk.

The airport operator the airlines and the Department for Transport all suggest this shows that the local noise environment around Heathrow has improved over time.

But this is utterly wrong

According to many people who live under either Heathrow's departure or arrival routes noise annoyance has got worse over time.

The reality is that school lessons are disrupted more than ever, musical concerts are interrupted and peaceful days shattered by overhead aeroplanes.

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And the reasons for this apparent contradiction?

First, in the UK noise contours indicate the average amount of noise energy measured over a 16 hours period from 7 am until 11 pm. They ignore completely the effect of night flights and in particular the increasingly busy period at Heathrow between 6 am and 7am. Averaging techniques also serve to hide short term real local noise increases when there are prolonged easterly or westerly operations at Heathrow.

Second, computer generated contours can only acknowledge the noise energy that is contained within them. According to the current UK noise measuring system, people's annoyance with aircraft noise would be the same with 100,000 planes a year flying above them as it would with, say, 500,000 so long as there was no increase in total noise energy.

What's so frustrating is that there is an easy way to measure the impact of aircraft noise on people. You simply ask them.

Social surveys are a better method of measuring the nature, distribution and intensity of the subjective responses to aircraft noise within a population. It is only by asking people as well as computers that the Government can make any noise consultation worthwhile.

Link to ANIS Study

<https://www.caa.co.uk/application.aspx?catid=33&pagetype=65&appid=11&mode=detail&id=1441>

LINK to ANASE Study

http://www.hacan.org.uk/resources/reports/Understanding_UKCommunity_Annoyance_for_2M_Group_final_03092013.pdf