

For this column ARC invites guest writers to discuss and debate current and burning airport-related matters.

The number of planes is the real cause of aircraft noise

A strange thing is happening. At a time when individual aircraft are becoming quieter, more and more people are complaining about aircraft noise. Why is this so? Some claim the reason is that, as we have become wealthier, we are more likely to complain about things which disturb our quality of life. But there is little evidence to back this up.

The problem which people refer to all the time is the sheer volume of planes passing overhead. It is the number of planes rather than the noise of individual aircraft that has become the real problem. In London, somebody living under the Heathrow flight path, but over 20 kilometres from the airport, described it "as like living under a motorway in the sky with constant noise throughout the day and much of the night."

Measuring Noise

The reason the statistics do not pick up this new situation lies in the way noise is measured. It is now acknowledged that the Leq and Lden systems, which are used to measure noise, give too much weight to the noise of individual aircraft and not enough to the number of aircraft. Thus they fail to register accurately the overall noise impact, particularly at many of Europe's busiest airports where planes land as often as one every ninety seconds.

Quieter or Fewer Aircraft?

Unless the number of aircraft using airports is reduced, it is unlikely that the introduction of quieter planes will make any noticeable difference to residents living under the flight paths. (The planes would need to be very significantly quieter before there was any chance of that happening). That is why the key demand of residents is for fewer planes rather than quieter ones.

Averaging out Noise

There is another problem with the Leq and Lden methods of measuring noise. They average out noise over a certain period of time, including the periods when there are no planes. This gives a distorted result. This method of averaging out noise would show that 4 hours of Boeing 757s, one every two minutes, causes the same noise disturbance as 1 Concorde followed by 3 hrs 58 minutes of quiet. This does not reflect the actual experience of people living on the ground.

New Noise Areas

There could be another reason why the number of noise complaints has risen in recent years. Many people are experiencing aircraft noise for the first

time. Budget airlines are flying to many small airports for the first time. At some of the larger airports the sheer volume of planes – and, in some cases, the introduction of Continuous Descent Approach – has resulted in many aircraft starting their descent many more kilometres from the airport than was previously the case.

Looking Forward

What can be done to improve the situation? It is wishful thinking for the aviation industry to believe it can go on expanding in the hope that the introduction of quieter planes will deal with the noise problem. For the foreseeable future, the only sure way to cut the number of people disturbed by noise is to reduce the number of aircraft using the majority of Europe's airports. We cannot expect the industry to do this voluntarily. Quite understandably, it operates as a business. It is the job of governments to make sure it happens.

Government Action

It is perfectly possible to reduce the number of aircraft using Europe's airports. There are a number of things which can be done. First, aviation could be required to pay its fair share of taxation. At present, it gets tax-free fuel and is exempt from VAT in most countries. If it is too difficult to get international agreement to tax aviation fuel, then European governments could impose substitute taxes such as an Emissions Charge, a Noise Charge or a Ticket Tax. The tax holiday for the aviation industry must come to an end. This will reduce demand.

Second, the governments of Europe should look to invest more in fast, affordable rail and ferry services. There is conclusive evidence that people will switch to fast rail from short-distance flights. Since 45% of all flights within Europe are 500 kilometres or less in length, there is considerable scope to reduce the number of planes using the airports.



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Noise Directive

A tougher EU Noise Directive could also help cut noise levels. At present it is woefully weak. The forthcoming revision of the Directive provides a chance to change things. The Directive should include a timetable for adopting the World Health Organisation's recommended noise levels. It should also explore more accurate ways of measuring noise.

The Economic Impact

Some will argue that these measures to improve the noise climate will both harm the economy and restrict the chances of people who are not rich to holiday abroad. There is little evidence for either argument. The main economic impact of short-distance flights is to shuffle people and their money around Europe. If people flew abroad less, they would either holiday closer to home (thus building up their domestic tourist industry) or spend their money on something else (thus benefitting the wider economy). And, if people did want to fly abroad, a fast, affordable rail service would provide a viable alternative for most trips currently undertaken by short-distance flights.

Conclusion

Only a reduction in flight numbers will have a significant effect on noise levels, certainly for the foreseeable future. This can be done without harming the overall economy. And unless it is done, many millions of people will continue to suffer like this resident: "I am on the flight path to Heathrow and must endure a non-stop cacophony of groaning aircraft over the street. The confusion for me is that I live over 25 kilometres from Heathrow. "

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