

NOISE ACTION PLANS



This HACAN report outlines the flaws in the Government's approach to the Noise Action Plan for Heathrow and suggests the issues which it should address. June 2009

Summary

The European Union requires member states to produce noise action plans. DEFRA is the government department responsible for the plans in the UK. It has given responsibility for drawing up the noise action plans for many of the airports, including Heathrow, to the airport operators themselves! BAA's draft noise action plan for Heathrow failed to deal with any of the underlying noise problems.

This report sets out the issues which need addressing. It outlines 8 key measures which need to be contained in a Noise Action Plan in order to improve the situation: -

1. A strategic, step-by-step approach to reduce the noise suffered by all communities during the day through a range of clearly defined measures;

- Get rid of the 57 decibel contour as it doesn't reflect reality;
- Retain the cap of 480,000 on the number of flights permitted at Heathrow;
- Retain runway alternation;
- Explore ways of extending runway alternation to areas further from Heathrow;
- Look at ways of introducing a steeper approach.
- Ditch any plan to concentrate the number of flights on narrower and narrower corridors thus creating noise ghettos.
- Explore ways of actually reducing the number of flights using the airport.

2. A ban on night flights between 11.30pm and 6am when the current arrangement comes to an end in 2012; with a phasing out of flights between 6am and 7am.

3. A recognition that the current method of averaging out noise does not, in itself, give an accurate picture of the way people hear aircraft noise.

4. 'C' weighted noise measurements to be taken alongside 'A' weighting to accurately reflect the high levels of low-frequency noise contained in aircraft noise;

5. The protection of existing quiet spaces.

6. A re-evaluation of the way Continuous Descent Approach is working and a re-assessment of its benefits and disbenefits.

7. The introduction of more realistic and generous insulation schemes.

8. A joint plan covering both Heathrow and London City airports because of the overlapping flight paths.

The cover photo is of the actual planes which flew over Vauxhall in one hour: thirty-three. And Vauxhall is over 16 miles from Heathrow, a stone's throw from the Houses of Parliament. The BAA Action Plan will not address the situation on Vauxhall because it refuses to recognise the area has a problem with aircraft noise.

Photograph by Weedon/Hartleben

Noise Action Plans

Why Noise Action Plans

The EU Noise Directive requires EU member states to produce noise action plans. These follow the noise maps member states had to submit to the European Commission in 2007. The countries within the EU were required to draw up noise maps for conurbations of 250,000 people or more, for the busiest roads and railways and for airports of 50,000 or more movements a year.

What are they intended to achieve?

The noise action plans are meant to outline what measures member states are going to take to reduce noise levels, particularly in the noisiest areas identified by the noise maps. There is a special requirement on governments to preserve and enhance quiet areas. In practice, noise action plans may not amount to much because the EU has surrounded them with so many caveats. In particular, measures in noise action plans do not require to be implemented if it is going to cost too much to do so.

Why is BAA drawing up the Government's Noise Action Plans?

In the UK the responsibility for drawing up noise action plans for the major airports has been given to the airports themselves! It is almost certainly not what the EU intended but it is within their rules. DEFRA, the government department with overall responsibility for noise action plans, argues that, because airports have detailed technical knowledge about aircraft noise from airports, they are in the best position to draw up the noise action plans. The plans will need to be approved by DEFRA.

For road and rail, DEFRA itself is drawing up the noise action plans, with some input from the local authorities

What is the timescale?

BAA will put the noise action plans out to public consultation for 16 weeks on 8th June. DEFRA is expected to submit the final noise action plans to the EU by the end of the year.

What is the BAA Noise Action Plan likely to contain?

BAA's pre-consultation draft is attached in a separate email. It contains little more than things the company would have been planning to do anyway.

It has just three noticeably new suggestions:

- *We will work with our partners in Sustainable Aviation to develop and promote low noise flight procedures through evaluation of future operational methods and implementation of best practice, for example: evaluating the feasibility of implementing steeper approaches. We will report on these bi-annually.*
- *We will seek to protect quiet areas in any airspace change process that impacts LHR where it does not conflict with the government's stated policy of not adding to the burden of more densely populated areas.*
- *We will undertake a review of our existing Community Buildings Noise Insulation and our Home Relocation Assistance noise mitigation and compensation schemes in 2010.*

And none of these is definite. They are all about "evaluating", "seeking to protect" and "undertaking a review." Unless the action plan which has gone out to public consultation is significantly different from the draft, it will do little to address the underlying noise problems caused by Heathrow and its flights.

Noise Action Plans

Key issues that have not been addressed

1. The Extent of the Noise Problem

In summary: The Noise Action Plan only attempts to deal with noise problems within the 57 decibel contour because BAA and the Government don't officially recognise there are significant problems outside that area. But that contour doesn't tie in with real life. For example, it excludes Putney and Fulham! It is also higher than the level at which the World Health Organisation has found noise becomes a problem for people.

The picture on the front of this report illustrates that aircraft noise is not confined to areas close to Heathrow. Vauxhall, where the picture was taken, is over 16 miles from the airport. It is just a stone's throw from Big Ben and the Houses of Parliament. 33 planes passed overhead in one hour. Most over 70 decibels. Yet according to BAA – and the Government – there is no problem which needs to be addressed. The Noise Action Plan doesn't cover this area at all.

This refusal to accept there is a problems lies in the obsessive belief that most people do not start to get annoyed by aircraft noise - what is known as the 'onset of community noise' – until it averages out, over 92 days, at 57 decibels. The Vauxhall average is likely to be 54 – 55 decibels.

The World Health Organisation Findings

The Government and BAA's blind adherence to 57 decibels – what's known as the 57 decibel Leq contour – flies in the face of the hard evidence collected by the World Health Organisation (WHO). WHO is clear. The onset of community annoyance starts well below 57 decibels. It has found people start to get 'moderately annoyed' when noise averages out at 50 decibels and 'severely annoyed' when noise averages out at 55 decibels.

The difference in the numbers of people affected is huge. The Department for Transport's own figures – produced when preparing for its announcement on the third runway earlier this year – show that, in 2007, 620,000 lived within the 54 decibel contour compared to less than 270,000 within its official 57 decibel contour. Over 1 million would live within the 50 decibel contour.

Over 600,000 people are affected by noise from Heathrow, more than double the Noise Action Plan admits to

The Noise Action Plan only includes people living within the 57 decibel contour. This doesn't tally with reality. It excludes areas such as Fulham and Putney where nobody denies that aircraft noise is a very real problem indeed. It certainly rules out Vauxhall.

The irony is that a report produced for HACAN in 2007 (*No Place to Hide*, 2007) by the same acoustics firm now advising DEFRA, Bureau Veritas, demonstrated the very real impact aircraft noise has on areas way outside the 57 decibel contour.

- In **Kennington Park**, close to the Oval Cricket Ground, 18 miles from the airport, there was "an almost constant background of aircraft noise".
- In **Ruskin Park** near Camberwell in South London, 20 miles from the airport, aircraft noise dominates the local environment. During busy hours a plane flies over almost every 90 seconds, usually louder than 60 decibels.

- At **Clapham Common**, well outside the area where noise is officially recognised as a problem, aircraft fly over at the rate of one a minute, the vast majority of them registering over 60 decibels.
- In **Poplar** 84 planes were recorded as flying over in a two hour period, 45 Heathrow and 26 City Airport. The noise level of the Heathrow aircraft ranged from 60 – 69 decibels and the City aircraft from 64 – 82 decibels.

The ANASE Study which the Government published in November 2007 backed up the evidence from both the World Health Organisation and the Bureau Veritas report: aircraft noise is a problem for people in areas way beyond the 57 decibel contour. Despite spending £1.6 million on the study, the Government refused to accept it because, at the last minute, it claimed there were flaws in its methodology. But, regardless of any flaws, the overall message of the study was clear: the 57 decibel contour did not reflect reality.

2. The Way Noise is Assessed

In summary: Noise contours are drawn up by averaging out the noise over usually 92 days. Because this includes the quiet periods of the year, it doesn't properly reflect the way noise annoys people. It also excludes areas, such as Ealing, where noise is a real problem but, since it occurs only on certain days, the average is low – certainly less than the magic 57 decibels.

Because noise contours reflect the noise averaged out over the year rather than the actual noise people hear when a plane flies overhead, they don't fully reflect the real disturbance caused by the noise. It is the averaging out which causes the problem. Sometimes noise is averaged over a 16 hour period; sometimes day, evening and night noise is averaged out separately. After that, the noise is averaged out over a period of a year or part of a year. But, regardless of the period used, the method of averaging out is problematic because it includes the quiet periods of the day and the quiet days of the year.

At Heathrow, this can lead to significant distortions of the real situation:

- In areas closer to Heathrow which benefit from runway alternations (where planes landing at the airport switch runways at 3pm) people get a half day's break from the noise.
- And the averaging out method completely distorts the situation for places such as **Ealing** which only get planes overhead when the east wind is blowing. This only happens for about 25% of the time in a typical year but, on the days it does happen, the people experience very loud planes over their heads all day long. But, because the average noise over the year is less than 57 decibels, the BAA Noise Action Plan won't apply to Ealing. For the same reason, to the west of the airport, the 57 decibel contour barely encompasses all of **the Windsor area**. This is out of touch with reality.

The Need to Get Real!

The official version of the areas where noise is a problem is at variance with reality. The number of people disturbed by noise from Heathrow is much greater than is officially admitted. A clear recognition of the numbers affected is the only credible basis on which a noise action plan can be drawn up. Without it, the plan is largely irrelevant before the ink is dry on the paper it is written on. There are measures which a noise action plan, which recognised the true scale of the problem, could contain to improve the situation. They are outlined on the following pages.

What a Credible Noise Action Plan Might Look Like

It is not easy to reduce noise levels. What is required is a strategic plan with credible steps to achieve clearly defined goals.

The Basis of a Plan

The most logical thing would be to base the plan and its goals on the standards set out by the World Health Organisation.

The World Health Organisation states that:

- People start to get moderately annoyed when noise averages out at 50 decibels
- People start to get seriously annoyed when noise averages out at 55 decibels
- At night it recommends that the average noise (indoors) should not exceed 30 decibels
- If there is a high low-frequency content in the noise, 'C' weighted measurements as well as 'A' weighted measurements should be used
- The number of flights should be taken into account as well as the average noise levels when assessing the impact of noise

What is required:

1. An **Action Plan which sets out to reduce annoyance for people living within the 50 and 55 decibel contours – over a million people in total.**

That means:

- Get rid of the 57 decibel contour as it is out of touch with reality.
- Retain the cap of 480,000 on the number of flights permitted at Heathrow. This will mean that, if and when quieter planes come on-stream, residents will get some benefit.
- Retain runway alternation.
- Explore ways of extending runway alternation to areas further from Heathrow in order to give more people some relief from the noise during the day.
- Look at ways of introducing a steeper approach. This actually does form part of BAA's draft Action Plan. A steeper glideslope would have significant benefits for areas further from Heathrow as planes would be higher in the sky.
- Ditch any plan to concentrate the number of flights on narrower and narrower corridors thus creating noise ghettos. (The industry now has the technology to do this. Using a system called PR-NAV, computers can guide planes down from the holding stacks with great precision. It is something BAA is actively exploring).
- Explore ways of actually *reducing* the number of flights using the airport. It is the sheer volume of aircraft, rather than the noise of each plane, that is the big problem these days. Cutting overall numbers is a big challenge, but not impossible. Investment in fast, affordable rail services, coupled with more use of teleconferencing, has the potential to cut flight numbers without affecting the effectiveness of UK plc.

2. An Action Plan which reduces night noise.

That needs:

A ban on night flights. Night flights are incompatible with the WHO recommended noise limits for night-time. A two-stage approach is recommended:

- a ban on night flights between 11.30pm and 6am when the current agreement with the airlines runs out in 2012. The alleged contribution of these flights to the UK economy has never been backed up by hard evidence.

- a reduction in the number of night flights between 6am and 7am, leading to an eventual ban

3. An Action Plan which takes full account of low-frequency noise in measurements

This needs:

The use of 'C' weighted or 'D' weighted noise measurements as well as 'A' weighted ones. WHO recommends that when the difference between 'A' and 'C' weighted results is around 10 decibels, 'C' weighted measurements should be used as well as 'A' weighted ones. A 2003 HACAN Study (The Quiet Con, 2003) found that 'C' weighted results showed planes to be around 9 decibels noisier than when the conventional 'A' weighting was used – this is because of the high amount of low-frequency contained in the deep roar of an aircraft.

4. An Action Plan which doesn't rely exclusively on average noise

This needs:

An additional noise measurement. The method of averaging out noise is used internationally and would be difficult to ditch unilaterally but additional methods can be used. For example in Sydney, the number of flights going over an area is published as well as the noise average. This needs to be explored for use in the UK as part of this action plan.

5. An Action Plan which protects and enhances quiet areas

This needs:

- the retention of runway alternation - because that means important open spaces such as Hounslow Heath or Windsor Great Park would at least be quiet for some of the day

- a guarantee that no new areas of London and the South East will be overflown, thus protecting somewhere like Regents Park

6. An Action Plan which looks again at the operation of Continuous Descent Approach

This needs:

Continuous Descent Approach (CDA – whereby planes descend in a continuous, gradual, smooth movement from the holding stacks rather than by a step-by-step approach – may not be the panacea the aviation industry claims it to be. Firstly, CDA permits planes to fly at the same height over a long period rather than the constant smooth descent it claims. And secondly, there is some evidence that, in order to get a smooth approach, aircraft are required to join their final approach path further from Heathrow – it could, for example, be the reason why so many planes now fly over Vauxhall. The operation and overall benefits and disbenefits of CDA need to be evaluated.

7. An Action Plan which introduces more realistic and generous insulation schemes

This needs:

- Proper noise insulation schemes for residential and community buildings, operating over wider areas than now, to include more than just double-glazing (ventilation etc) and to apply to new community buildings as well as existing ones.
- Investment in updating old insulation (in homes and community buildings) after, say, 20 years or when it fails to provide appropriate attenuation
- Ensure Cranford is covered for additional mitigation and/or buy-up if the noise increase is more than 1dB (as in road schemes) - rather than 3dB which BAA would like.

8. An Action Plan which also covers City Airport

This needs:

Given the way that, between them Heathrow and City Airport have made aircraft noise a London-wide problem, the same action plan should cover both airports.

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