London Assembly night flights consultation response

Foreword from the Chair of the Health and Environment Committee, Murad Qureshi AM

Everybody deserves a good night's kip, even those living under flight paths.

The London Assembly has always called for Heathrow's environmental impacts to be brought under control, and, especially, that there should be no flights during the night disturbing the sleep of many thousands with serious effects on health and quality of life.

That is still the Committee's view – we do not want night flights. But as the consultation paper suggests that some will continue, this response also answers the consultation questions about how to minimise their effects on Londoners.

We make clear that there must be clear targets to cut noise levels significantly, especially at night. Quieter planes should be used.

Although the weather often forces planes to make their landing approach over London, the Committee endorses the proposal that any night arrivals should be from the other direction when they can – sharing the noise effects more evenly between the west and the east of Heathrow and affecting substantially fewer residents in the process.

There should be no relaxation of the voluntary 'curfew' at Heathrow, between 11.30 at night and 4.30 in the morning; this rule should be made stricter to ensure that people can get at least a few hours uninterrupted sleep as often as possible.

Airlines say that noise can be reduced by making landing approaches slightly steeper. We welcome this. Also Heathrow makes grants for noise insulation in those homes worst affected. These must be made more widely available to bring Heathrow in line with the more generous scheme operated by its London neighbour, City Airport.

Airports want more flexibility to cope with delays and unforeseen circumstances. Instead of flying more planes at night, they should look at not filling their runways so tightly during normal daytime schedules. As planes get bigger, fewer should be needed.

At the heart of the debate over aviation expansion is the trade-off between supposed economic benefits and the impact on the quality of life for local residents. This trade-off is stark when it comes to night flights.

The government should look carefully at the evidence on both sides of the debate. Important findings on health effects, mental well-being, productivity and children's education are effectively being ignored simply because it is difficult to put an exact figure on them.

Night flights blight the lives of local residents – the government should fully understand and recognise this.

1. Introduction

This paper forms the London Assembly's response to the Department for Transport's Stage 1 consultation on night flying restrictions at Heathrow, Gatwick and Stansted[1]. In accordance with recent London Assembly practice, the response concentrates on Heathrow as it has by far the greatest noise impact within the Greater London boundary.

Opposition to night flights

The Assembly has consistently sought to minimise the negative impacts of aviation on Londoners, argued against night flights, and specifically opposed any increase in night flights.[2] The Health and Environment Committee (and its precursor the Environment Committee) has made the case in more detail against night flights.[3] This response makes no fundamental change to this position, but addresses specific questions from the current consultation.

Basis for response

This response has been prepared following discussions with relevant experts and stakeholders from the industry and community, especially at the Health and Environment Committee meeting of 6 March 2013.[4]

Contents

It addresses selected questions from the consultation paper under the following headings:

- Noise abatement objectives
- Quota Count system – classification of aircraft
- Dispensations
- Operational procedures - increased angle of descent
- Operational procedures - night-time easterly preference
- Guaranteed respite period
- Compensation and insulation schemes
- Assessing the impacts

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[1] Night Flying Restrictions at Heathrow, Gatwick and Stansted Consultation Document. Department for Transport January 2013 https://www.gov.uk/government/consultations/night-flights-consultation - hereafter referred to as 'consultation paper'

[2] *Assembly says a firm 'no' to night flights* – press release 18 November 2009 http://www.london.gov.uk/media/press_releases_london_assembly/assembly-says-firm-no-night-flights. See also *Assembly opposes any increase in flights at BAA's London airports* – press release 16 June 2010 http://www.london.gov.uk/media/press_releases_london_assembly/assembly-opposes-any-increase-flights-baa%E2%80%99s-london-airports.

[3] *Plane Speaking*, March 2012 report http://www.london.gov.uk/publication/tackling-air-and-noise-pollution-around-heathrow and subsequent response to the consultation on the aviation policy framework http://www.london.gov.uk/publication/aviation-policy-framework-consultation-response. See also *Flights of Fancy*, January 2010 report http://www.london.gov.uk/who-runs-london/the-london-assembly/publications/environment/flights-fancy-can-expanded-heathrow-meet-its-environmental-targets and subsequent response to the consultation on regulating air transport http://www.london.gov.uk/who-runs-london/the-london-assembly/publications/environment/aviation

[4] Agenda, minutes and transcript at http://www.london.gov.uk/moderngov/ieListDocuments.aspx?CId=256&MId=4622&Ver=4

2. Noise abatement objectives[5]

This section responds to question 3 from the consultation paper:

> Do you have any views on how [the noise abatement] objectives should change in the next night noise regime?

In line with its previous positions, **the Committee would wish to see night flights stopped altogether, or reduced to an absolute minimum occasional occurrence**.

While any night flights continue, for example as part of a phasing-out, the next regulation regime could be based on a set of noise reduction objectives, improved and updated from the current objectives. **The objectives should aim at significant reductions in noise, and should be specified relative to updated baselines to reflect and secure the reductions that have already taken place.**

Quieter aircraft

There are two objectives in the current regime relating to the use of quieter aircraft at Heathrow:

> Progressively to encourage the use of quieter aircraft by day and night
> To minimise sleep disturbance resulting from overflight of the noisiest types of aircraft

For many residents living close to the airport end of the flightpath, modern 'quieter' aircraft are still loud enough to wake them up, and regularly do as early as 4.30am.[6] Therefore **there should be no or very few night flights.**

However, quieter aircraft are likely to reduce the disturbance for residents at the edges of the noise footprint, and so **objectives for quieter aircraft would remain an important part of regulating the noise from any continuing night flights.**

A shortcoming of the objectives as currently formulated is that they relate to no specific measure. To argue that they have been met, the consultation paper makes reference to the average noise rating of aircraft using the airport, and the number of the noisiest aircraft using the airport. **Quantified objectives should be proposed, using measures such as average noise rating and number of flights by noise level, including specific night-time measures. The objectives should stipulate a target reduction from current levels, so that a small reduction is not regarded as success.**

The Committee did hear that aircraft designed for quiet operation can have a relative fuel efficiency penalty, compared to how efficient they could have been if noise was not an issue. However, this difference was reportedly small, and much less than the improvement in fuel efficiency since the previous generation of aircraft.[7] Therefore **the**

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[5] See consultation paper, pages 20-23
[6] Health and Environment Committee meeting, 6 March, transcript pages 4-8
[7] Health and Environment Committee meeting, 6 March, transcript page 8

Committee accepts the role of aircraft designed for quietness in minimising the overall environmental impacts of aviation, alongside continuing fuel efficiency gains and limits to the volume of aviation traffic.

Noise levels in the night quota period

There are two objectives in the current regime relating to noise in the Heathrow night quota period:

> To avoid allowing the overall noise from aircraft during the night quota period to increase above 2002-03 levels
>
> To limit the 6.5 hour (2330-0600) 48dBA Leq contour (for the winter and summer seasons combined) to 55km2 by 2011-12

As the consultation paper claims success against the first objective using the same measure as for the second, **the first objective seems redundant and can perhaps be merged into the objective for the area within the 2330-0600 48dB Leq contour. In line with the principle of progressive noise reduction, the target should be for a significantly smaller noise footprint than currently.** The footprint area reduced by about 13km^2 from 2002/03 to 2011/12, so an equal reduction again may be a starting point. The quieter A380 will this year be coming into BA's fleet[8] so there is immediate scope for further reductions.

In 2009 the World Health Organisation (WHO) published a study[9] noting that, at night-time (eight-hour) average noise levels above 40dBA Leq, 'Adverse health effects are observed among the exposed population. Many people have to adapt their lives to cope with the noise at night. Vulnerable groups are more severely affected.' The WHO therefore recommends as a goal that average night noise levels outside should not exceed this level.

To work towards the WHO guidelines, an objective should be added to reduce the area within Heathrow's 40dB night noise contour. The current contour should be mapped and a target set to reduce it significantly.

3. Quota Count system – classification of aircraft[10]

This section responds to question 5 from the consultation paper:

> Do you have any evidence to suggest we should amend or move away from the current QC classification system?

If there are any night flights, there is clearly merit in there being a system to measure and regulate the noise produced by individual aircraft. The current QC classification

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[8] Health and Environment Committee meeting, 6 March, transcript pages 3 and 13

[9] http://www.euro.who.int/en/what-we-do/health-topics/environment-and-health/noise/publications/2009/night-noise-guidelines-for-europe

[10] See consultation paper, pages 25-31

system is aimed at this purpose. However, **any rules relating to the noise of individual aircraft should reflect the noise experienced in practice by people on the ground.**

The consultation document[11] makes it clear that at least one model of the new Airbus A380 is certified by the International Civil Aviation Authority (ICAO) at an Effective Perceived Noise Level (EPNL) on approach of under 90 dB, but is measured at an EPNL of over 90 dB, which would place it in a higher Quota Count category. Also at least one model of the older Boeing 767 is measured at a higher QC category than its certification – while some other aircraft are measured at lower categories.

However, an EU Directive enshrines the ICAO classifications as the legal basis for noise regulation. The London Boroughs of Richmond and Wandsworth challenged the Secretary of State's interpretation of this in the High Court, but a court order records that the parties agreed that the Secretary of State must treat aircraft with the same ICAO certification in the same way for purposes of performance-related operating restrictions.[12]

To command trust and to effectively manage noise impacts in residential areas around Heathrow, **the QC classification (or classifications underpinning any alternative system) should as far as possible reflect noise levels measured on the ground in those areas. The CAA should therefore raise this issue with the ICAO, in addition to the industry and international discussions identified in the consultation document.**

4. Dispensations[13]

This section responds to question 9 from the consultation paper:

> Would you favour adding greater contingency to the seasonal movement limits (within any overall movement cap for the airport) in order to avoid large numbers of dispensations?

It is not entirely clear from the consultation paper, or from the discussions at the Committee's meeting, what type or scale of contingency arrangements are envisaged, and so the Committee will look at this question again if clearer proposals emerge at the Stage 2 consultation.

The Department for Transport told the Committee[14] that contingency would not be designed to give more night flights in total. **The Committee welcomes this: it wishes to see fewer night flights if any, and would as a minimum expect any**

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[11] Consultation paper, pages 28-30
[12] Letter of 22 March 2013 to the Chair from Civil Aviation Authority
[13] Consultation paper, pages 31-33
[14] Health & Environment Committee meeting, 6 March, transcript page 20

Stage 2 contingency proposals to feature robust safeguards against any overall increase in night flights.

The consensus at the Committee's meeting was that a major reason for dispensations, and the drive behind looking at contingency, is that Heathrow is operating very close to its maximum daytime capacity, and so delays and backlogs (caused perhaps by ordinary spells of bad weather) are difficult to manage within daytime hours.[15] **The Committee suggests it is worth investigating whether a reduction in scheduled daytime movements could provide the necessary flexibility without requiring more night flights.** The introduction of larger individual aircraft may provide scope to do this without reducing passenger numbers.

5. Operational procedures - increased angle of descent[16]

This section responds to question 15 from the consultation paper:

> Please provide any information on the feasibility of increasing the angle of descent into Heathrow, Gatwick or Stansted, particularly within the next seven years.

British Airways is very confident that an increase in the continuous angle of descent from 3.0 degrees to 3.2 degrees would be possible and would be likely to reduce noise exposure, and perhaps emissions of CO_2 and other pollutant gases.[17] The Committee notes that there are regulatory and other issues to resolve before this is adopted, but **the Committee would urge that the steeper descent proposal be given positive consideration**, and likewise in future a steeper descent angle still, if there is evidence that it would reduce noise further without excessive adverse effects.

The Committee notes further that there have been suggestions of a 'two-segment' approach (initially descending at six degrees but then re-joining the three-degree final approach path, perhaps by applying engine thrust), but that these are much less widely supported by the industry as a whole.[18] **It does not seem that a two-segment approach would have benefits for those most severely affected by aircraft noise.**

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[15] Health and Environment Committee meeting, 6 March, transcript page 22
[16] Consultation paper, page 39
[17] Health & Environment Committee meeting, 6 March 2013, transcript pages 13-17. There is an illustrative diagram of the steeper descent concept in the CAA Insight Note on aviation policy and the environment at page 32:
http://www.caa.co.uk/docs/589/CAA_InsightNote2_Aviation_Policy_For_The_Environment.pdf
[18] Health & Environment Committee meeting, 6 March 2013, transcript page 17

6. Operational procedures - night-time easterly preference[19]

This section responds to question 16 from the consultation paper:

> What are your views on the analysis and conclusions in annex H? Would you be in favour of changing the current pattern of alternation in favour of an easterly preference during the night quota period?

The Committee acknowledges the analysis in annex H, which states that the intention of the alternation scheme had been to produce a 50:50 split between easterly and westerly operations at night, but that in practice approximately 72% of night-time operations have been westerly (with arrivals approaching over London) – therefore approximately 28% of night-time operations have been easterly.

The Annex states that an easterly preference would be expected to produce a more even, and reversed, split – with only about 40% of operations westerly (over London) and 60% easterly. The more even split would seem to be more equitable and more in line with the original intentions of the alternation scheme. The Committee notes that the change would be to the frequency of night noise in each area – the noise of individual aircraft would not change because of this proposal, and overall the same areas would be affected as under the current system.

The Annex also states that, with a switch to easterly preference, noise exposure would increase to the west of Heathrow and decrease to the east. The increased exposure to the west would affect about 15,600 people, and the decreased exposure to the east would affect about 109,200 people. However, overall noise would not be reduced. **Therefore, the Committee would re-state its preference for eliminating night flights from Heathrow as far as possible, and reducing the noise from any remaining flights likewise.**

But, if night flights do continue, the Committee would favour an easterly preference in the night quota period, so as to achieve a split between directions of operation closer to 50/50.

7. Guaranteed respite period[20]

This section responds to questions 30 and 32-34 from the consultation paper:

> What is the rationale for operating services at precise times during the night quota period (as they do now)?
> What is the feasibility of making Heathrow's voluntary curfew mandatory?
> If you favour a guaranteed respite period, what would be the minimum period which you would consider to be worthwhile?

[19] Consultation paper, pages 39-40 and Annex H
[20] Consultation paper, pages 53-56

> What are your views on the principle of trading off a complete restriction on movements in one part of the current night quota period against an increase in flights in another part of the night quota period?

Currently, the night quota period runs from 2330 to 0600, and the only scheduled movements in this period are arrivals between 0430 and 0600. This provides a respite from all but a few aircraft movements between 2330 and 0430. There is a strong rationale for this respite, as it should allow people affected by the noise to get to sleep and to remain undisturbed by noise for a 5-hour stretch, at an appropriate time of the night. Without this respite, many people would be likely to suffer very severe sleep disturbance indeed, with consequent effects on their health, well-being and productivity.

The Committee therefore strongly opposes any removal of the voluntary curfew in these hours, as well as any increase in night flights generally.

The Committee heard evidence on both sides of the debate over such a mandatory curfew. Frankfurt has implemented such a measure: British Airways said that the curfew there imposed significant economic costs on airlines that had to keep planes on standby to prevent technical faults delaying departures, and on passengers who could have flights delayed until the next morning without warning; while HACAN Clearskies suggested that Frankfurt's problems resulted from a contested and poorly-planned imposition of the curfew, and that a well-planned measure could avoid these problems.[21]

Completely eliminating flights in this period, or some other night-time period, would enhance the respite provided. **The Committee therefore would view a mandatory respite period or curfew as desirable.**

8. Compensation and insulation schemes[22]

This section responds to question Q39 from the consultation paper:

> Do you have any suggestions for changes to current compensation schemes or for new compensation schemes that might be introduced to help offset the impact of night noise on those exposed to it?

Sleep disturbance and other negative impacts of aircraft noise are felt by many residents at noise levels significantly less than the current 69 dB Leq threshold currently applied by Heathrow for its insulation scheme. Also, sleep disturbance is affected primarily by night noise, which is not included in the Leq measure. Evening and night noise are included, and appropriately weighted, in the Lden measure.

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[21] Health & Environment Committee meeting, 6 March 2013, transcript pages 12-13
[22] Consultation paper, pages 58-59

As the Committee has previously recommended, most recently in its response to the draft Aviation Policy Framework consultation[23], **the noise insulation scheme for Heathrow should be brought into line with that for London City Airport, meaning that Heathrow should adopt a 59 dB Lden threshold for determining the areas eligible for insulation**, instead of its current 69 dB Leq or proposed 63 dB Lden. Over time, the Committee would wish to see lower thresholds adopted by both airports.

9. Assessing the impacts[24]

This section responds to question 54 from the consultation paper:

> Do you agree that the approach proposed by the CAA for estimating the cost of sleep disturbance from aircraft noise reflects the available evidence? If not, how do you think it should be changed?

The CAA's approach[25] partly reflects the available evidence on the cost of sleep disturbance from aircraft noise, placing a monetary value on the costs in terms of percentage of sleep highly disturbed, increased risk of heart attacks and increased risk of hypertension (and therefore of stroke and dementia).

However, the CAA itself notes that there is further evidence of costs in mental health symptoms such as depression and anxiety, productivity losses associated with disturbed sleep, and stress and impaired performance at school for children. The CAA does not consider that there is sufficient evidence to draw firm conclusions about these costs and so it appears to propose that they should be treated as zero. **The CAA's approach therefore does not fully reflect the evidence on the costs of night noise.**

The economic values of these additional factors, while uncertain, could be high. Depression and anxiety can be life-changing impacts, and productivity losses (poor performance and tiredness) due to disrupted sleep are a direct and immediate economic loss. Most significant could be the effects on children – impaired performance at school, for children who spend their school careers living under the flight path, must in many cases translate to reduced learning, lower skills and qualifications and therefore lower productivity and income over the future working life of those individuals, compared to what they would have achieved if they had been able to go to school well-rested.[26]

The Committee recommends that some estimate of the costs of these impacts should be made and used – there is sufficient evidence to conclude that they are

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[23] Pages 10-11 http://www.london.gov.uk/mayor-assembly/london-assembly/publications/aviation-policy-framework-consultation-response

[24] Consultation paper, chapter 6

[25] Civil Aviation Authority ERCD REPORT 1209 Proposed methodology for estimating the cost of sleep disturbance from aircraft noise http://www.caa.co.uk/docs/33/ERCD1209.pdf

[26] As well as the CAA report, see Health & Environment Committee meeting, 6 March 2013, transcript pages 33-39

most likely non-zero. The estimates can be refined as further evidence becomes available.

The Committee also recommends that further research be commissioned to resolve the most significant uncertainties in costing the effects of night noise. With hundreds of thousands of people affected and the next night noise regime set to last for several years, **it is not acceptable simply to disregard major costs on the grounds of insufficiently certain estimates of their size.**