



Department
for Transport

Night Flying Restrictions at Heathrow, Gatwick and Stansted Stage 2 Consultation Annexes

November 2013

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Annex A: Statutory instrument

Table 1: SCHEDULE 2 Regulation 6 of STATUTORY INSTRUMENTS 2003 No. 1742; CIVIL AVIATION The Aerodromes (Noise Restrictions)(Rules and Procedures) Regulations 2003 which shows the matters to be taken into account when considering operating restrictions at a relevant airport

Paragraph	Location in consultation
1.1. A description of the airport including information about its capacity, location, surroundings, air traffic volume and mix and runway mix.	See airport Noise Action Plans (NAPs) ¹ for general information and Chapter 3 of stage 1 consultation for information on night operations.
1.2. A description of the environmental objectives for the airport and the national context.	See Chapter 4 (Proposals for Next Regime) of Stage 2 consultation for proposed new objectives and Chapter 3 of Stage 1 consultation for current objectives.
1.3. Details of noise contours for the current and previous years—including an assessment of the number of people affected by aircraft noise. Description of the computational method used to develop the contours.	Annex B of stage 1 consultation (for current years) and NAPs for previous years
1.4. A description of measures to reduce aircraft noise already implemented: for example, information on land use planning and management; noise insulation programmes; operating procedures such as PANS-OPS; operation restrictions such as noise limits, night flying restrictions; noise charges; preferential runway use, noise preferred routes/track-keeping, and noise monitoring	See Noise Action Plans. For Heathrow Airport -pages 28-41, for Gatwick Airport - pages 37-45, for Stansted Airport -pages 27-36. See also Chapter 5 of Stage 2 consultation for a description of recent developments.

¹ <http://www.heathrowairport.com/noise/what-we-do-about-it/noise-action-plan>

http://www.gatwickairport.com/PublicationFiles/business_and_community/all_public_publications/aircraft_noise/GatwickAirportENDNoiseActionPlanJune2010.pdf

<http://www.stanstedairport.com/about-us/local-environmental-impacts/noise/future-plans>

<p>2.1. Descriptions of airport developments (if any) already approved and in the programme, for example, increased capacity, runway and/or terminal expansion, and the projected future traffic mix and estimated growth.</p>	<p>Chapter 3 of Stage 1 consultation. The Airports Commission is considering the need for future hub capacity in the UK and its recommendations may be relevant to any or all of the three noise designated airports.</p>
<p>2.2. In case of airport capacity extension, the benefits of making that additional capacity available.</p>	<p>Chapter 3 of Stage 1 consultation where relevant.</p>
<p>2.3. A description of effect on noise climate without further measures</p>	<p>Chapter 5 and Annex B of Stage 1 consultation.</p>
<p>2.4. Forecast noise contours—including an assessment of the number of people likely to be affected by aircraft noise—distinguish between established residential areas and newly constructed residential areas.</p>	<p>Annex B of Stage 1 consultation and Annex B of Stage 2 consultation. We do not have data on newly constructed residential areas.</p>
<p>2.5. Evaluation of the consequences and possible costs of not taking action to lessen the impact of increased noise—if it is expected to occur.</p>	<p>Section 4.1 of draft Impact Assessment</p> <p>Forecasts show that noise is not expected to increase if current restrictions are maintained (see Annex B)</p>
<p>3.1 Outline of additional measures available as part of the different options mentioned in regulation 5(1) and in particular an indication of the main reasons for their selection. Description of those measures chosen for further analysis and fuller information on the cost of introducing these measures; the number of people expected to benefit and timeframe; and a ranking of the overall effectiveness of particular measures.</p>	<p>Paras 4.15-20 explain that only a limited number of policy options are being considered at this time and the reasons for this. Chapter 4 sets out these options.</p> <p>See section 4 of draft Impact Assessment for costs and benefits of introducing proposed measures; see Annex B and para 4.47 of consultation document showing forecast number of people expected to be affected.</p> <p>The draft IA sets out the benefits. Given recent movements, policy option 2 is likely to have most benefits at Stansted, while policy option 1 would have most benefits at Heathrow as quota limits restrict activity there.</p>
<p>3.2. Assessment of the cost/effectiveness or cost/benefit of the introduction of specific measures, taking account of the socio-economic effects of the measures on the users of the airport: operators (passenger and freight); travellers and local communities.</p>	<p>As above</p>
<p>3.3. An overview of the possible environmental and competitive effects of the proposed measures on other airports, operators and other interested parties.</p>	<p>See section 8.3 of IA.</p>
<p>3.4. Reasons for selection of the preferred option.</p>	<p>To be covered in final decision document.</p>

3.5. A non-technical summary.	As above
4.1. When and where noise maps or action plans have been prepared under the terms of the said Directive of 25th June 2002 these will be used for providing the information required in this Schedule.	See NAPS and Annex B.
4.2. The assessment of noise exposure (i.e. establishment of noise contours and number of people affected) shall be carried out using at least the common noise indicators Lden and Lnight, where available.	As above.

Annex B: Forecast noise contours

- B.1** Forecast noise contours for the 6.5 hr night quota period have been calculated by the Environmental Research and Consultancy Department (ERCD) of the Civil Aviation Authority (CAA) using the UK aircraft noise contour model (ANCON 2).
- B.2** Estimates of the number of people and the area affected by aircraft noise at each airport have been calculated for the beginning and end of the proposed three-year regime, based on the central and high forecasts described in the draft Impact Assessment (see figures 2-7). In each case, contours have been calculated using forecast data for a full winter and summer season. Results are provided below in Tables 1 to 10 for each contour level on a cumulative basis in accordance with normal practice. Contour maps for the 2016-17 central forecasts are also shown in Figures 1 to 3.
- B.3** It should be noted that maximum (100%) usage of the noise quotas could lead to a worsening of the noise climate when compared to the central and high forecast results shown below. The 2011-12 maximum usage contours provided previously at Annex B of the stage 1 consultation indicate the worst-case noise exposure at each airport.

Table 1: Heathrow 2014-15 Central/High and 2016-17 High

Contour (dBA)	Area (sq km)	Population (1000s)	Households (1000s)
48	35.6	103.6	36.7
51	18.2	50.2	16.7
54	9.4	21.1	6.7
57	4.9	4.4	1.3
60	2.6	1.7	0.5
63	1.6	<0.1	<0.1

Table 2: Heathrow 2016-17 Central

Contour (dBA)	Area (sq km)	Population (1000s)	Households (1000s)
48	34.8	100.6	35.4
51	17.7	48.4	16.1
54	9.0	19.3	6.1
57	4.6	4.0	1.2

60	2.5	1.5	0.4
63	1.5	<0.1	<0.1

Table 3: Gatwick 2014-15 Central

Contour (dBA)	Area (sq km)	Population (1000s)	Households (1000s)
48	35.1	4.2	1.6
51	18.4	1.1	0.5
54	9.6	0.3	0.1
57	5.0	0.2	0.1
60	2.5	0.1	<0.1
63	1.3	0.0	0.0

Table 4: Gatwick 2016-17 Central

Contour (dBA)	Area (sq km)	Population (1000s)	Households (1000s)
48	36.0	4.2	1.7
51	18.9	1.1	0.5
54	9.8	0.3	0.1
57	5.1	0.2	0.1
60	2.6	0.1	<0.1
63	1.3	0.0	0.0

Table 5: Gatwick 2014-15 High

Contour (dBA)	Area (sq km)	Population (1000s)	Households (1000s)
48	35.8	4.2	1.6
51	18.8	1.1	0.5
54	9.8	0.3	0.1
57	5.1	0.2	0.1
60	2.6	0.1	<0.1
63	1.3	0.0	0.0

Table 6: Gatwick 2016-17 High

Contour (dBA)	Area (sq km)	Population (1000s)	Households (1000s)
48	37.1	4.2	1.7
51	19.5	1.1	0.5
54	10.2	0.4	0.1
57	5.3	0.2	0.1
60	2.7	0.1	<0.1

63	1.4	0.0	0.0
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Table 7: Stansted 2014-15 Central

Contour (dBA)	Area (sq km)	Population (1000s)	Households (1000s)
48	32.4	2.4	0.9
51	17.8	0.9	0.3
54	9.3	0.3	0.1
57	5.1	<0.1	<0.1
60	3.0	0.0	0.0
63	1.9	0.0	0.0

Table 8: Stansted 2016-17 Central

Contour (dBA)	Area (sq km)	Population (1000s)	Households (1000s)
48	33.7	2.9	1.1
51	18.6	1.0	0.4
54	9.7	0.3	0.1
57	5.3	<0.1	<0.1
60	3.1	<0.1	<0.1
63	2.0	0.0	0.0

Table 9: Stansted 2014-15 High

Contour (dBA)	Area (sq km)	Population (1000s)	Households (1000s)
48	33.7	2.9	1.1
51	18.6	1.0	0.4
54	9.7	0.3	0.1
57	5.3	<0.1	<0.1
60	3.1	<0.1	<0.1
63	2.0	0.0	0.0

Table 10: Stansted 2016-17 High

Contour (dBA)	Area (sq km)	Population (1000s)	Households (1000s)
48	36.2	3.3	1.3
51	20.2	1.1	0.4
54	10.6	0.3	0.1
57	5.7	0.1	<0.1
60	3.3	<0.1	<0.1
63	2.1	0.0	0.0

Figure 1: Heathrow 2016-17 Lnight (6.5 hour) central forecast noise contours (48-63 dBA)

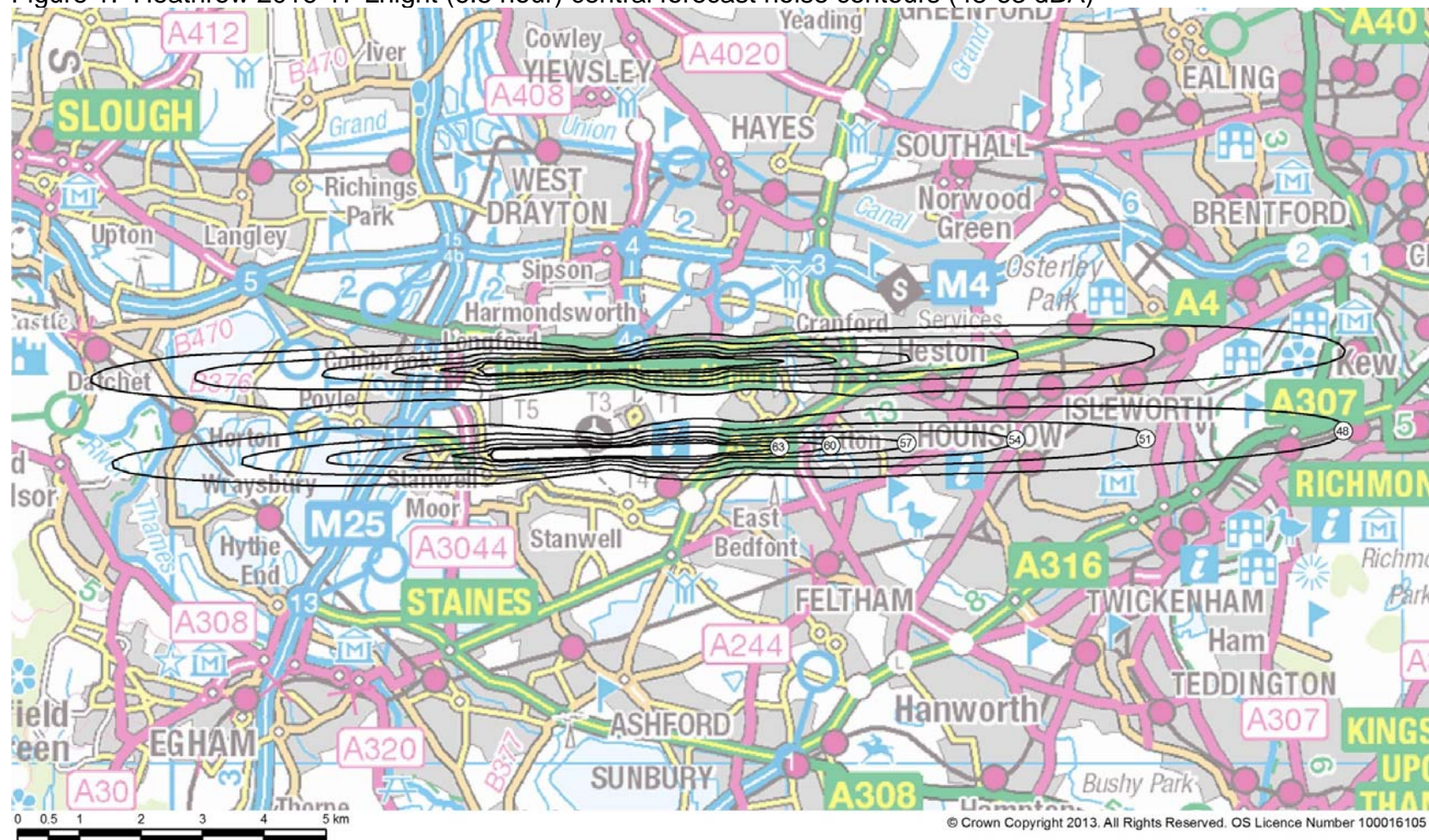


Figure 2: Gatwick 2016-17 Lnight (6.5 hour) central forecast noise contours (48-63 dBA)

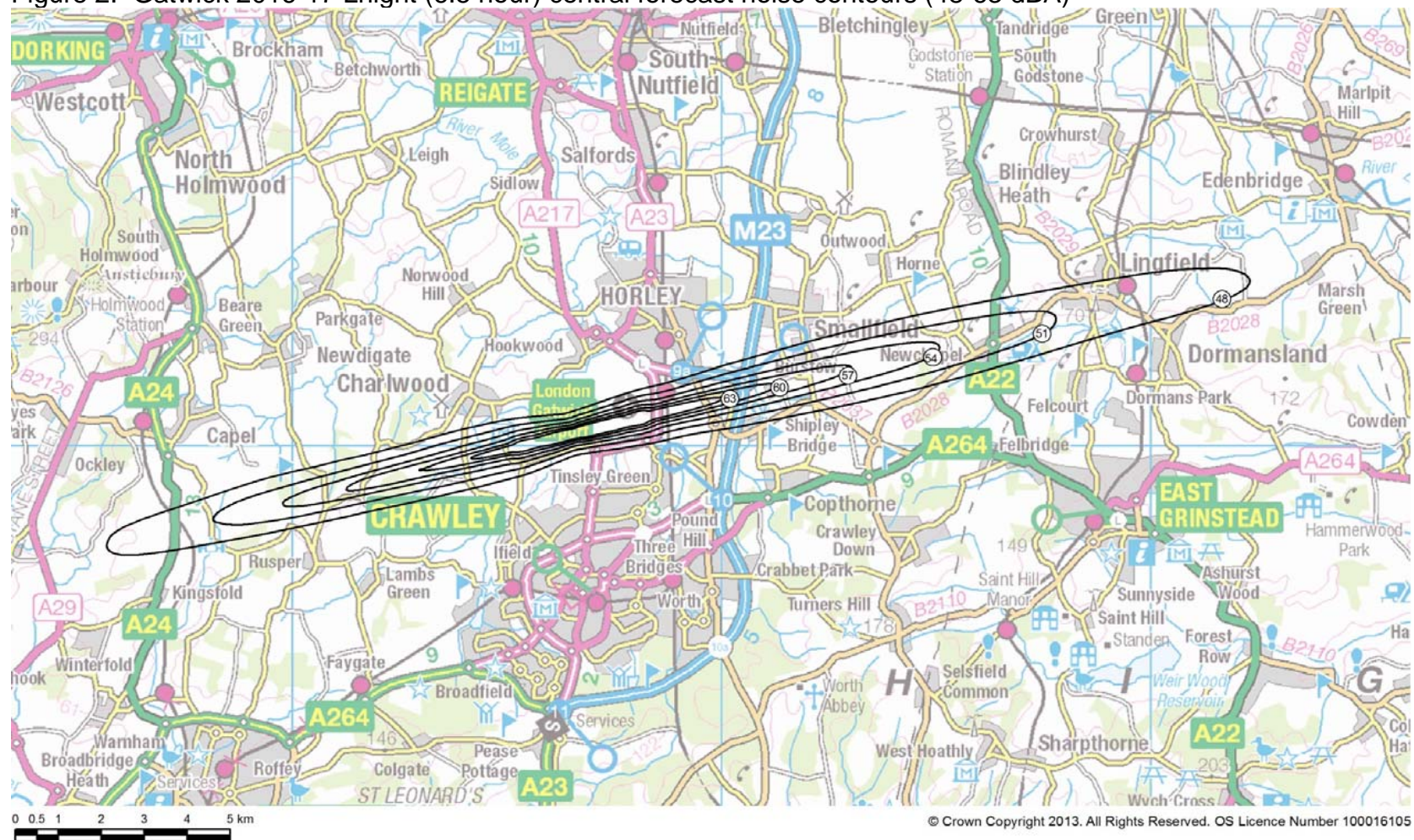
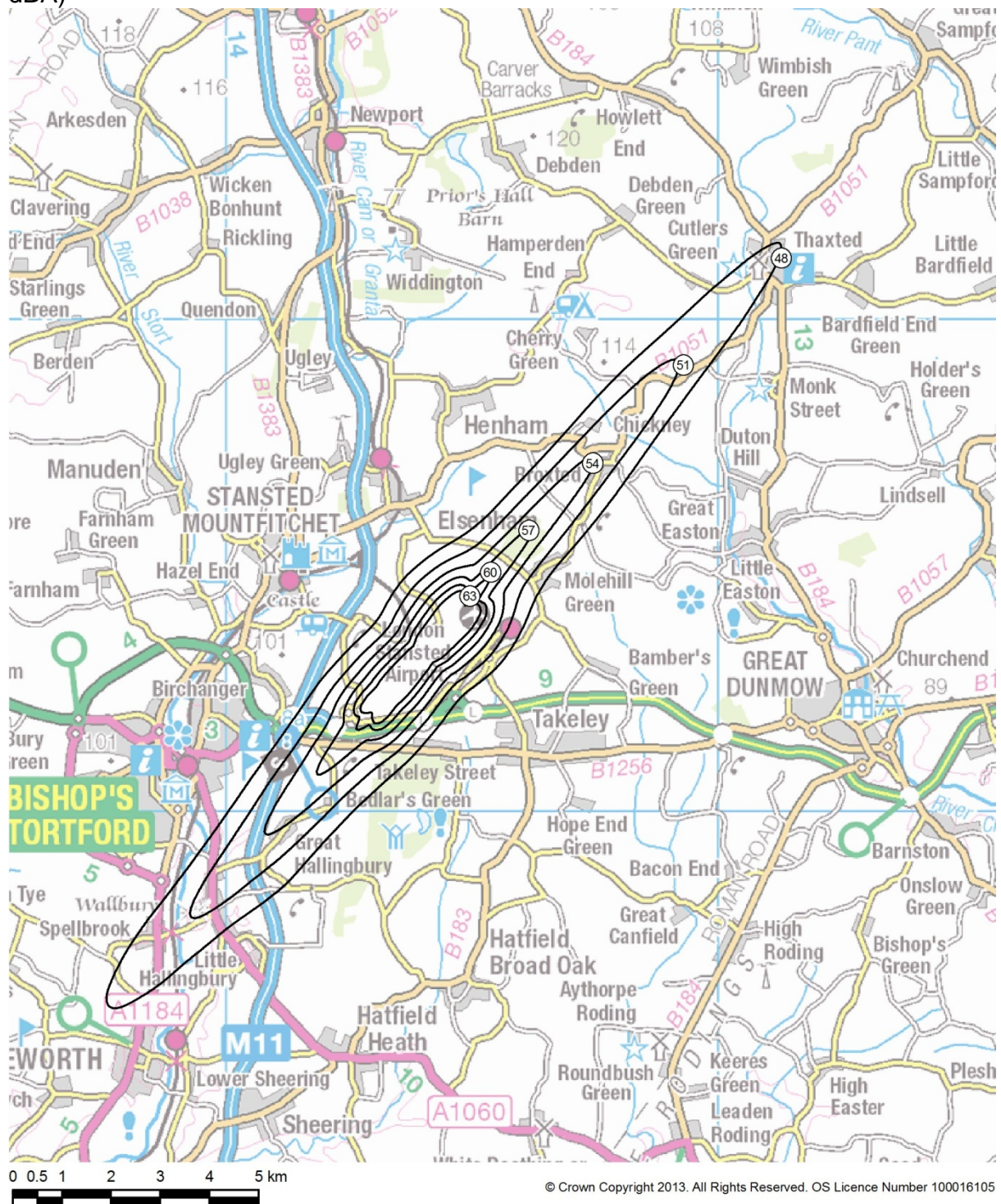


Figure 3: Stansted 2016-17 Night (6.5 hour) central forecast noise contours (48-63 dBA)



Annex C: Draft revised guidance on dispensations

This contains proposals to update the guidance provided in 1999. The purpose is to provide greater clarity and reflect recent practice, although much of the guidance remains unchanged. Views are invited on the whole suite of guidance or any part of it.

DfT GUIDELINES ON FLIGHTS WHICH MAY BE GIVEN DISPENSATIONS FROM THE NIGHT RESTRICTIONS

The Secretary of State has the power under Section 78 (4) of the Civil Aviation Act 1982 to specify in a notice circumstances in which movements may be disregarded from the night restrictions by the airport managers or a person authorised by the airport manager. (The restrictions are those made under section 78(3) of that Act.) That person shall then determine whether a particular occasion or series of occasions on which aircraft take off or land at the aerodrome should be disregarded from the night restrictions due to these circumstances. It shall be the duty of the person managing the aerodrome or the person authorised by him to notify the Secretary of State in writing within one week of every such occasion occurring.

In addition, under Section 78(5)(f) The Secretary of State may by a notice given in the prescribed manner to the person managing an aerodrome determine that a particular occasion or series of occasions on which aircraft take off or land at the aerodrome shall be disregarded from the restrictions made under section 78(3). These may include night flight restrictions.

GUIDELINES

We are proposing that the following guidelines should be borne in mind when considering requests for disregarding movements from the provisions of the night restrictions by the Secretary of State. They are not intended to cover every situation which might conceivably arise, but they do cover most of the situations which have arisen over the past years. Consultees' views on these proposals (and any other possible matters for inclusion in these guidelines) are invited and will be taken into account before they are finalised. Please provide supporting reasons for your views.

A. Proposed Secretary of State Dispensations under Section 78 (5)(f) :

As a general principle, it is proposed that dispensations issued under Section 78(5)(f) should be used in relation to state matters, where dispensations are required as a result of a Government decision, or where the circumstances are so exceptional

that the airport's operations become an issue of national interest (e.g. in the case of prolonged closure of the airport).

1 Flights involving VIPs

We propose that these should include:-

- senior members of the Royal Family;
- UK Government ministers and Service Chiefs of Staff;
- senior members of foreign Royal Families, Heads of State, and senior ministers on an official visit or business where the person is being met by a Government representative; (status to be checked with the FCO when in doubt); but we suggest that repositioning flights preceding or following the use of that aircraft for carriage of a VIP will not be disregarded and therefore not allowed if the aircraft is classified as QC/8, QC/16, consistent with the ban on these types of aircraft in the night period.

For the avoidance of doubt, VIPs for this purpose would not include businessmen on private jets, or 'celebrities' from the world of show business or sport.

2 Relief Flights

We presently think these should include flights carrying cargoes such as medical supplies required urgently for the relief of suffering during a period of emergency, as for example, during a refugee crisis or following an earthquake. We presently believe that they should exclude medical or other supplies intended for humanitarian purposes where there is no particular urgency. Nor do we propose that they should include the carriage of the media and their associated equipment to trouble spots.

3 Military Aircraft War/Hostilities

Movements by military aircraft should not take place at night in peacetime unless the aircraft has been classified for night operation or special approval has been given by the Department for Transport in exceptional circumstances such as security from escalated threats. We propose that in such exceptional circumstances dispensations should continue to be available.

Dispensations have been given in the past for troop movements through Heathrow where there has been an outbreak of war or similar hostilities and this requires contingency arrangements. Dispensations would not, we presently believe, be appropriate once airlines have had time to assess the situation and make alternative arrangements.

4 Exceptional Circumstances

In the past the Secretary of State has provided dispensations in exceptional circumstances to enable flights during the night period and to allow aerodromes to recover from prolonged disruption. Examples include the periods following the Volcanic Ash Crisis in 2010 and following the severe prolonged winter weather in December 2010.

5 Changes to Airspace arrangements as a result of Government Decisions

Where there is a temporary change in airspace as a result of Government decisions with consequences for airline schedules, we propose that exceptions should be granted so as to protect airports/airlines from financial consequences of matters wholly beyond their control. Past examples have included a flypast for the Queen's Jubilee Celebrations and Olympic Celebrations and scheduled flights due to land or depart during the day were pushed into the night quota period.

6 Trials

Movements associated with trials of potential changes to the airport's operation, for example, in order to explore how trade offs between day and night movements might benefit local communities, so we propose that they should be included in these guidelines. Any such trials would need to be appropriately publicised to local communities and other relevant stakeholders before their implementation.

B. Section 78 (4) – Proposed Dispensations Under a Notice granted by the Airport Manager or a person authorised by him and which they would notify the Department on:

As a general principle, it is proposed that dispensations issued under Section 78(4) should be used when they relate to more routine operational matters affecting a small number of flights and the airport manager is better placed to take the decision.

1 Emergencies

Flights involving emergencies (other than those constituting “relief flights” as described in paragraph 2 of section A above) where there is an immediate danger to life or health, whether human or animal.

2 Widespread and Prolonged Air Traffic Disruption

Disruption to air traffic is intended to cover disruption affecting air traffic flow such as strikes by Air Traffic controllers or from political difficulties abroad or computer problems. We also propose that it should cover disruptions to air traffic from strong winds, snow and ice and fog resulting in low visibility procedures. Unscheduled landings in the night period arising from diversions from other airports due to weather conditions provided an aircraft had taken off unaware that its intended destination was unavailable should also we suggest be covered. We propose that problems arising from snow and ice should not in themselves constitute sufficient reason for dispensations, especially for departures, when the likelihood of adverse weather conditions should be taken into account in operations planning (but see proposed Government exemption because of exceptionally severe weather above).

3 Delays as a Result of Disruption leading to Serious Hardship and Congestion at the Airfield or Terminal

Delays would cover disruption to air traffic as proposed above. We propose it should also cover emergencies such as the fire to an aircraft on the ground at Heathrow in July 2013, which led to severe terminal disruption. We propose that it should not cover strikes by baggage handlers which is within the control of the airport or (normally) delays arising from additional security checks which should be taken into account when planning operations. Disruptions are not abnormal and we believe that adequate provision should be made within the airport's night restrictions and operational measures such as at Heathrow under Tactically Enhanced Arrivals Measures to help mitigate disruption and facilitate recovery and the need for dispensations. Operational difficulties cannot be predicted precisely but experience indicates they can be expected to occur.

We presently believe that airport managers must use their own judgement as to what constitutes serious hardship or suffering for the purposes of the above. Serious hardship or suffering is intended to cover cases where passengers are subjected to long delays when the terminal buildings are overcrowded and their facilities strained and insufficient hotel accommodation is available. Only the minimum number of flights required to reduce overcrowding to a tolerable level should be disregarded. Our present view is that mere inconvenience to passengers does not constitute hardship for these purposes. We suggest that the same considerations should apply if serious hardship at an originating airport is to be a reason for disregarding a landing.

We propose that delayed cargo flights (other than those carrying animals and meeting one of the criteria above) and extra night shuttle flights to meet demand may not be disregarded and all such movements must count against the movements limit and the noise quota according to their QC classification. Accordingly we propose that they should fall outside the proposed scope of these s78(4) dispensations.

We propose that dispensations would not be appropriate when aircraft operators have reasonable time to rearrange their schedules and accordingly should fall outside the proposed scope of these s78(4) dispensations. All dispensations in times of air traffic disruption (whether ATC, political crisis, weather related etc.) are NET; i.e. any movements scheduled for the night period but which do not occur (or occur in the daytime) because of that disruption, must be offset against this, with only the excess counting as dispensations from the movements limits and the noise quotas

To Note:

MONITORING

All dispensations granted by the airport will be subject to monitoring.

TESTING AND CALIBRATION OF INSTRUMENT LANDING SYSTEMS

Airborne safety calibration checks of the instrument landing systems (ILS) used by arriving aircraft at the three London airports are carried out on behalf of the Civil Aviation Authority usually twice a year and generally at night. Normally the aircraft

used for this purpose are exempt from the night restrictions (i.e. they are classified QC/0). However, we propose that any landings and take offs for the purpose of testing the ILS or other navigation equipment, by aircraft classified QC/0.5 or above, are not given dispensations and would count against the movement limits and noise quotas. So we propose that such flights should fall outside the scope of this suggested dispensation.

Department for Transport
November 2013

Annex D: A summary of technical work carried out by ERCD in support of the QC system

- D.1** When the Government introduced the QC system in 1993 it undertook to review the classification of aircraft types (which are based on ICAO noise certification data) against monitored noise data obtained from actual operations at Heathrow, Gatwick and Stansted. Commencement of the monitoring work was delayed until 1999 for technical reasons but the review was eventually completed in 2003 and the findings published in ERCD Report 0205 [1]. Further background on one of the techniques used in the monitoring work was also published at the same time in ERCD Report 0206 [2]. The results of the monitoring study showed that most aircraft operating at night had operational noise levels consistent with their QC classifications. The results also showed that some types were noisier than their classifications, and some quieter.
- D.2** The original intention of the QC monitoring study was that if an aircraft type was shown to produce noise levels significantly higher or lower than the average for its category, its QC classification would be reconsidered. However, in the 2004 Stage 1 consultation document the Department stated that Article 4(4) of Directive 2002/30/EC precluded the use of any system of noise classification other than that based on ICAO certification data, and it therefore had no discretion to substitute measurements of operational noise as an alternative to the ICAO certification data.
- D.3** This approach was challenged by the London Boroughs of Richmond and Wandsworth on the basis that the Secretary of State had wrongly regarded himself as bound by the EC Directive to maintain a noise classification system which did not depart from ICAO noise classification data. During the course of the hearing (on 14 December 2004) the proceedings were stayed under a court order recording that the parties had agreed “that the Secretary of State is entitled to have regard to the operational noise of aircraft (and not merely to ICAO certification data) in formulating operating restrictions, provided that, in respect of restrictions at any given airport, aircraft with the same ICAO certificated noise levels are to be treated in the same way”.
- D.4** In June 1999 the Government had also announced its decision to conduct a general review of the QC system as a whole, to examine whether stronger incentives should be built into the system to ensure that it was as effective as possible in encouraging airlines to use quieter aircraft. The QC review was published by the Department in 2003 [3] and it also looked at the

methodology used for calculating the classification of arriving aircraft (the “minus 9” adjustment). As part of this review the Department had commissioned ERCD to reanalyse how certificated take-off and landing data compare with the noise impact on the local population. That assessment was published in 2002 as ERCD Report 0204 [4]. A key conclusion of ERCD Report 0204 was that the method by which aircraft QC classifications are determined from official certificated noise levels remains appropriate.

D.5 The findings of the ERCD and DfT reports described above were taken into account by the Secretary of State in his June 2006 decision on restrictions for the current regime. The announcement confirmed previous decisions made at Stages 1 and 2, including the decision to retain the QC system, the decision to maintain the 9 EPNdB reduction for arrivals, and the decision to make no adjustment to account for misclassified aircraft.

References

[1] Quota Count Validation Study; Noise Measurement and Analysis: ERCD Report 0205; April 2003 (<http://www.caa.co.uk/ercdreport0205>)

[2] A Practical Method for Estimating Operational Lateral Noise Levels: ERCD Report 0206; April 2003 (<http://www.caa.co.uk/ercdreport0206>)

[3] Review of the Quota Count (QC) System used for administering the night noise quotas at Heathrow, Gatwick and Stansted Airports, Department for Transport, February 2003
(http://webarchive.nationalarchives.gov.uk/20081106081659/http://www.dft.gov.uk/pgr/aviation/environmentalissues/coll_nightnoisequotasatheathrowg/nightnoisequotasprintversion)

[4] Review of the Quota Count (QC) System: Reanalysis of the differences between Arrivals and Departures: ERCD Report 0204; November 2002
(<http://www.caa.co.uk/ercdreport0204>)

Annex E: 90 dBA SEL QC/8 Departure Footprints

Figure 1: 90 dBA SEL QC/8 departure footprint: Heathrow 09R BPK

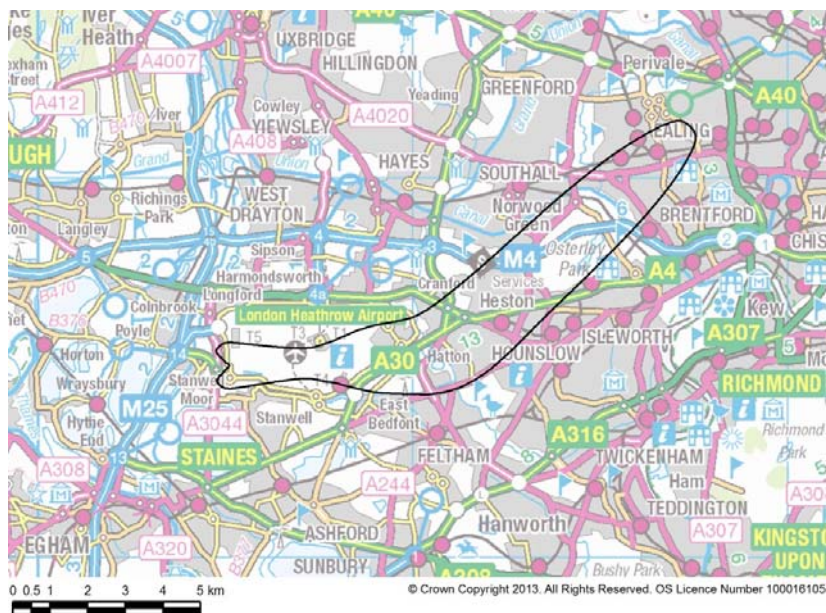
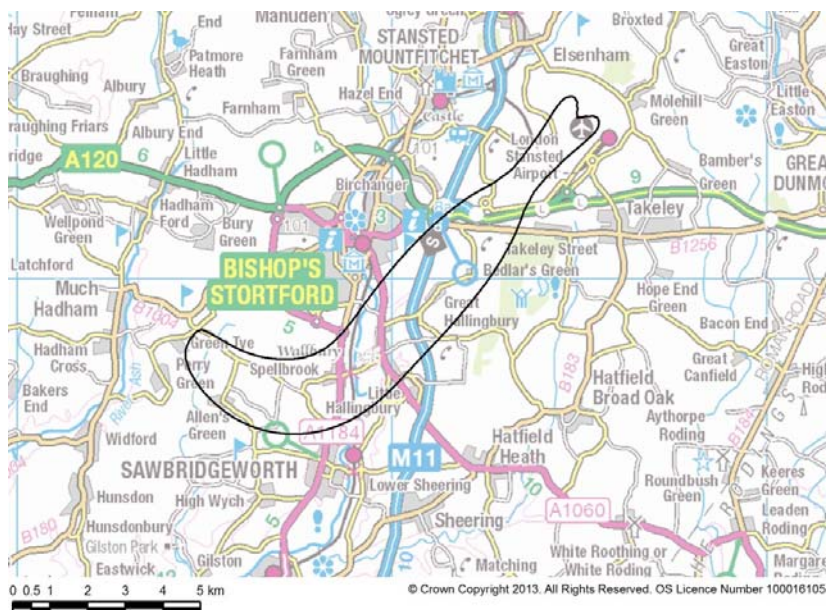
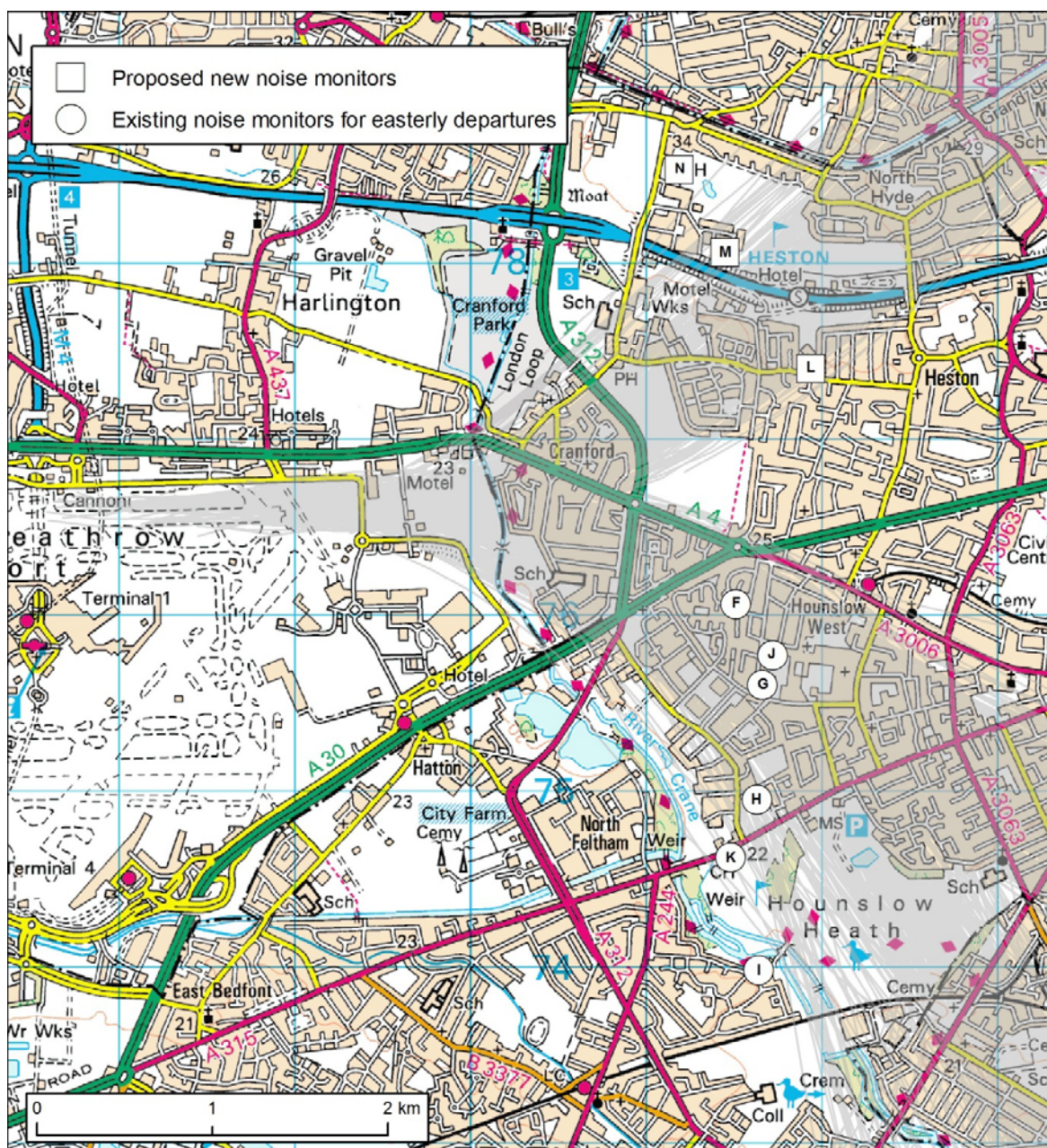


Figure 2: 90 dBA SEL QC/8 departure footprint: Stansted 22 BUZ



Annex F: Proposed new noise monitor locations at Heathrow (with radar tracks for 09L departures shown for illustration)



Annex G: Summary of responses to the first stage consultation.

Overview

The Department published its Stage 1 consultation on 22 January 2013. The consultation was primarily intended to gather evidence to inform the development of options for the next night noise regime.

An online form was set up for responses and a dedicated email address (night.noise@dft.gsi.gov.uk) was also used, to which interested parties were invited to submit their responses. The consultation document was made available online, and respondents were also able to make their submissions to the Department by post.

During the consultation period Departmental officials held workshops with stakeholder groups and attended events organised by representative bodies at which they presented the consultation and answered questions.

The consultation closed on 22 April. Responses were logged and read by the relevant policy team within the Department. In total we received 828 responses, of which 128 came from organisations and the remainder from individual members of the public. A full breakdown by respondent type is shown below.

Type of Respondent	Total
Aerospace Industry	3
Airline Industry	16
Airport	6
Consultative Committee	2
Environmental Group	20
Freight	6
International Government	1
Local Government	40
MP	4
Other Aviation	4
Other Business	8
Professional Body	1
Public	700
Resident Group	17
Grand Total	828

We are grateful to all respondents for taking the time to respond to the consultation. The Department does not routinely publish individual responses, although we do encourage individual companies, in the interest of transparency, to release their responses where possible. Many organisations have chosen to do this.

As indicated in the consultation, we have also shared responses to the consultation with the Airports Commission.

Summary of responses to individual questions

Q1: Are there any other matters that you think we should cover in the second stage consultation?

Responses

A variety of different points were raised. Those most frequently raised were:

- Final decisions must be based on the need to facilitate growth, be beneficial for the economy and take account of the ICAO Balanced Approach.
- To take account of the work of the Airports Commission.
- The impacts on departure time at other international airports if the current early morning arrivals at Heathrow were to be restricted.
- Need for more research and social surveys into annoyance from aircraft noise.
- To take account of the effects on children's learning.
- Lower noise levels should be used for mapping.
- The impact of trials.
- The impact of ground noise.
- Stage 2 should be more accessible and easier for the general public to understand.
- Any changes must take account of grandfather rights to slots.
- Government should also designate Luton Airport for night noise control purposes.
- Take account of effects on Areas of Outstanding Natural Beauty.

Government response

Many of the points raised are reflected in this stage 2 consultation. However, a number of issues, such as mapping and the scope of Government regulation, are broader in scope than this consultation and the Government's policy on these is set out in the Aviation Policy Framework published in March. The Department's Noise Management Advisory Committee is reviewing the wider noise abatement procedures at the three airports and will be considering all procedures which are not uniquely night related. Airports are reviewing their noise action plans later this year and this will cover matters including ground noise.

Q2: Do you have any comments on our assessment of the extent to which current objectives have been met?

Q3: Do you have any views on how these objectives should change in the next night noise regime?

Responses

Most respondents agreed with our assessment of the objectives and that these objectives had been met. A few suggested that these objectives were too easily met and that too much headroom had been given. They thought that future objectives need to be more challenging and there is a need to reduce the area affected by the 48dBA night noise contour. One respondent considered that the objectives were not sufficiently precise or measureable and it was not therefore possible to determine objectively whether or not they had been met.

Industry indicated future objectives need to take account of the ICAO balanced approach and the need to recognise the need for economic growth.

From non-industry respondents, many wanted to see an objective which moved towards a ban on night flights and objectives which helped to meet the World Health Organisation (WHO) guidelines for night noise.

Others felt that objectives should not rely solely on size of Leq contours. Individual noise events were also important. There should be objectives for the introduction of quieter aircraft and objectives around average noise levels and the number of flights.

There should be objectives based on the number of people exposed, although it was acknowledged that land use planning was a necessary requisite here and this was outside the airports control.

Government response

Proposed environmental objectives for the next regime are set out in Chapter 4 of the consultation document, along with a rationale and how they would be measured.

Q4: Do you have any views on whether noise quotas and movement limits should apply only to the existing night quota period or to a different time period?

Responses

Industry responses indicated opposition to a longer time period. Any lengthening of the period would impact on operations. 23.30 to 06.00 remained the most favoured period.

Many non-industry respondents wanted to move towards WHO targets and indicated the night quota period should be extended and include the shoulder periods so that limits applied from 23.00 to 07.00.

Many used this question to call for a move towards a ban on night flights. Some called for a phased reduction on movements until a complete ban was in place.

At Heathrow a few responses considered it would be possible to move all arrival flights to after 05.00 and a few suggested that all scheduled arrivals between 4.30am and 06.00 am should be moved to after 06.00.

A few pointed out that moving to Central European time would help in delaying early morning arrivals.

Government response

At the three airports there are a significant number of movements just outside the existing night quota period (23.30 to 06.00). Any extension to the current time period with similar movement and quota limits would greatly impact on the operations of the airports and airlines. Changing the night quota period would therefore require a fundamental review of these limits if it is not to have adverse impacts on operations. We also note that there would be additional administrative complexity associated with restrictions applied to the 8 hour period. We therefore propose no change to the existing night quota period when the limits apply.

Q5: Do you have any new evidence to suggest we should amend or move away from the current QC classification system?

Responses

The vast majority of responses to this question indicated there was no new evidence and were satisfied with the current system. Whilst content with the current QC system, a few of the responses from the freight industry suggest having a system based on ICAO Chapter noise classifications which would take account of the size of aircraft.

A number made the point that there should be regular validations to compare actual noise operating levels with certification levels. A few called for a review of the minus 9ENPB adjustment for approaching aircraft. While technology improvements to

aircraft have reduced the noise footprint on take-off this has not been matched by a corresponding reduction on arrivals.

A few called for a need to take account and resolve the A380 discrepancy reported in the stage 1 consultation. Some responses suggested that all potentially disturbing aircraft should be included in the QC system and counted as movements, and that there was therefore a need to include a QC classification lower than 0.25.

A few suggested moving to the system which is adopted at London City airport which operates five noise categories for departure noise (our system has seven) with different noise classifications.

Government response

Taking into account that the vast majority of responses were satisfied with the current system and the legal requirement to base performance-based operating restrictions on noise performance of the aircraft as determined by the ICAO certification procedures, we see no case for changing the current system.

ERCD Report 0204 set out the case for retaining the minus 9ENPB adjustment for approaching aircraft. We see no recent evidence which would suggest a need to review this assessment.

Regarding the A380 discrepancy, Rolls-Royce is continuing investigation of A380/Trent 900 operational approach noise levels, with assistance from the CAA where necessary.

Q6: Do you have any views on the optimum length of the next regime and how this should align with work of the Airports Commission?

Responses

Of those who responded to the question regarding aligning the regime with the Airports Commission, the majority of the respondents suggested we should take the Commission's recommendations into account before setting the next regime. This was on basis that night flights are part of the capacity debate. Some explicitly suggested waiting for the interim report (due December 2013), others said wait until after the final report (due in the summer of 2015) and maintain the current regime until then. Only one organisation expressed the view that the Commission should align with the night flights regime rather than the other way around.

Most of the responses suggested any new regime should last around 5-6 years. A few suggested a longer term regime of up to 10 years to reflect airlines' replacement plans and provide certainty in committing resources. There was also the suggestion of a 10 year regime with an interim review after 5 years.

A number suggested that any new regime should align itself with cycle for reviewing Noise Action Plans (NAPs) as required under EU Directive 2002/49/EC on the Assessment and Management of Environmental Noise. These are required to be submitted by the end of 2013 and every 5 years after that. However, a few suggested it should not align with these requirements.

A further point made in response to this was that any development of noise envelopes should incorporate and dovetail with any changes to the regime.

Government response

In order to align with the work of the Airports Commission the Government has set out the case that the next regime should last for 3 years until October 2017 and we are consulting on this. More details can be found at paragraphs 4.15-20 of the consultation document.

We continue to consider that the regime should be reviewed at least every 5-6 years to ensure that new research and evidence can be taken into account. Due to the need to take account of other relevant developments, we believe it is important to retain some flexibility in the timing of reviews. The current situation is a case in point, where we are wishing to align with the work of the Airports Commission. We therefore do not believe it is practical to align the night noise regime with Noise Action Plans.

Dispensations (including carry-over and overrun arrangements)

Q7: Do you have any views on how dispensations have been used?

Q8: Do the dispensation guidelines still adequately reflect current operational issues?

Q9: Would you favour adding greater contingency to the seasonal movement limits (within an overall movement cap for the airport) in order to avoid large numbers of dispensations?

Q10: Do you consider there is still a need to retain the principles of carry-over and overrun?

Q11: If we retain the principles do you think we should change the percentage of movements and noise quota which can be carried over or overrun?

Responses

The majority of respondents considered that the reasons for granting dispensations seemed reasonable. There was a need to retain dispensations as an aid to recovery from major disruption and other exceptional circumstances. It was noted that dispensations were rarely used at Gatwick and Stansted as a result of actual movements not being as close to movement limits, unlike for Heathrow. However, the guidelines still needed to be transparent and consistent across all the airports. The view from industry was that the guidelines still adequately reflect current operational issues. However, additional clarification was required to the guidelines in a few areas for example on military flights; dispensations on possible trials; and disruption.

From non-industry responses, whilst most considered dispensations may be necessary, they felt that guidelines should be tightened and should only be used for emergencies. A few indicated that there should be penalties applied when they were used.

There was widespread opposition to adding greater contingency to seasonal movement limits in order to avoid large number of dispensations. Dispensations were required for flexibility and in order to recover from major disruption.

On carry-over rules and overrun there was general support to retain the principles and that the same percentage limits should be used, although there was also a view that no carry-over should be allowed. A few responses indicated there was a need to realign movements in the summer and winter periods to more adequately reflect the schedule and reflect the history of past movements (this is especially relevant to Heathrow).

Government response

The Government considers it needs to retain the power to issue dispensations in exceptional circumstances. It also considers that airports need to retain the power to issue dispensations in circumstances prescribed by the Government, such as long delays caused by disruption outside their control.

We have amended the guidelines (see Annex C) to reflect views expressed. We seek your views on these revised guidelines and whether it reflects better current circumstances.

The Government considers that there is a need to retain the principles of carry over and overrun and the percentage which can be carried over or overrun should be the same. We have noted the seasonal variations in use of the movements. Whilst there is some scope to adjust the limits between seasons to better reflect operational

needs, we consider that the carry-over provisions would continue to provide the necessary flexibility to address these seasonal variations.

Q12: Do you have any comments on our analysis of fleet and operational trends?

Q13: In the absence of any new restrictions, what changes in operations and fleet mix do you expect in the period between now and 2020 (and beyond 2020 if possible)?

Responses

Most of the airlines broadly agreed with the analysis of fleet and operational trends, although it was pointed out that changes in demand, costs, the availability of finance, and production slots for replacement aircraft can cause variations in the trends as can political or economic stability in markets.

Many of the airlines who responded indicated that they have fleet replacement plans (mostly in the public domain), which involve replacing aircraft with those that are quieter. A couple of the long haul operators indicated that London is one of their most prestigious routes and therefore they intend to operate their newest (and therefore quieter than those they replace) aircraft on this route.

It was pointed out that the current regime period was too short to influence airline fleet plans as most airlines plan many years ahead (often putting in orders 8-10 years before delivery). However Heathrow cited the A380 as an example of the QC system driving developments in quieter aircraft technology.

With the current capacity constraints (particularly at Heathrow) the possibility was raised that there might be a shift to bigger aircraft in the future – with associated noise implications.

Freight companies pointed out that cargo aircraft are often older than their passenger counterparts due to low utilisation. None expected there to be any major changes in operations or fleet mixes in the next few years.

Government response

Our proposals for noise quota limits set out in the consultation document and impact assessment take account of the evidence we have received.

Q14: Please set out how you expect local land use planning policies to impact upon the numbers of people exposed to night noise in the next regime. Please give details of any housing developments planned to take place within the current night noise contours.

Many of the responses from industry, local authorities and environmental groups mentioned the need for more instructive national planning policies (along the lines of PPG24) regarding land use planning around airports.

Most local authorities predicted little or slight increases in numbers of residential units in some areas within the current night noise contours. Some local authorities are worried about the impact of the principle of permitted development on the requirement for noise insulation and ventilation systems, especially for commercial to residential schemes.

Industry would like to ensure the planning policies of local authorities are mindful of the ICAO balanced approach. Many respondents from industry feel that the planning system is not playing its part by limiting noise sensitive development. However, all three airports indicated they are engaged with their local authorities in the local plan process to ensure noise-sensitive development is managed appropriately.

Government response

The Government published on 28 August 2013 new national planning practice guidance as an online resource². This included guidance on noise. The guidance was open for informal comment until 14 October. Final guidance will be published later in the autumn. We welcome the fact that all three airports are engaging with their local authorities in the local plan process to ensure noise-sensitive development is managed appropriately. In doing this, we would expect them to note the forecast noise contours which we have published for 2016-17 so that adverse effects at night can be avoided.

Q15: Please provide any information on the feasibility of increasing the angle of descent into Heathrow, Gatwick or Stansted, particularly within the next seven years.

Most of the industry responses suggested that increasing the angle of approach at the three airports from 3 degrees up to 3.25 degrees is flyable by most, if not all, aircraft currently flying into the airports without major changes to pilot operating procedures, although operational, safety and infrastructure considerations would have to be addressed before any changes could be implemented. It was suggested that any changes would need to be trialled to assess the operational implications and changes in the noise profile around airports. The evidence from industry was that

² <https://www.gov.uk/government/news/new-streamlined-planning-guide-launched-online>

higher angles of descent bring considerable operating challenges, including the inability to operate in low visibility conditions.

The likely noise benefit of a 3.2 degree approach in isolation is small and unlikely to be perceptible (thought to be in the region of 0.5 to 1.0dBA). Greater noise benefits could theoretically be achieved by combining slightly steeper approaches with other measures such as inset thresholds, reduced landing flaps and delayed landing gear deployment although many respondents were wary of this approach as there could be significant cost implications as well as safety considerations and is not something that could be achieved quickly.

While most local authorities, environmental groups and members of the public couldn't comment on the technical aspects, those who responded on this question broadly supported the idea of steeper approaches and would like to see the idea progressed.

Government response

We welcome the willingness of industry to trial this approach. Government will do what it can to support such trials.

Q16: What are your views on the analysis and conclusions in annex H? Would you favour changing the current pattern of alternation in favour of an easterly preference during the night quota period?

Many of those that responded from an industry point of view were supportive of at least exploring the idea further and perhaps carrying out some trials throughout the next regime. However it was felt that the analysis set out in the stage 1 consultation hadn't taken into account many of the factors that impact on runway direction, including the wind on approach (which can often be different from surface wind), the condition of the runway and associated equipment, and weather blowing through. Heathrow Airport and NATS have initiated a study to understand the extent to which these factors influence runway direction.

Most local authorities and environmental groups acknowledged that an easterly preference could have significant benefits for some residents, although some felt further detail is needed to enable communities to make informed comments. However, most were not generally in favour of a simple redistribution of noise (instead favouring a reduction or ban on night flights), although some groups would support a preference if it was part of a package of benefits ensuring no communities experienced a net increase in noise.

Government response

The Department remains interested in exploring the possible benefits and will therefore engage further with Heathrow on this topic both on a bilateral basis and through its Aircraft Noise Management Advisory Committee (ANMAC).

Q17: Do you have any views on the costs and benefits of a night-time runway direction preference scheme at Gatwick or Stansted?

Responses

Most of the responses to this question broadly agreed with the conclusion that a night-time runway preference at Gatwick or Stansted would not bring any significant noise benefits.

Gatwick Airport indicated that current operational restrictions on arrival and departure make a runway preference scheme at night impractical. They believe that any benefits from introducing a scheme are outweighed by the costs which include increased disturbance for communities, higher Air Traffic Control workload and safety concerns. Some airlines indicated they would be happy in principle to consider a preference.

Whilst some local authorities around Gatwick mentioned that they did wish to see a fairer spread of the noise, most of those who answered this question broadly agreed that any policy that moves aircraft noise from location to another and benefits one area at the cost of another should only be considered if there are very clear overall benefits. A scheme that allowed some form of respite would be welcomed.

Both Stansted Airport and environmental groups around the airport agreed that there is no conclusive data to suggest there would be any benefits to operating a preferred runway scheme. The airport cannot foresee any significant noise benefits, although there may be efficiency benefits.

Government response

The first stage consultation said we do not consider that a night-time runway preference scheme at Gatwick or Stansted is likely to have any great noise benefits. We have received no evidence to change this position.

Q18: Please provide any information about the feasibility of using displaced landing thresholds in the next seven years for arrivals from the east at Heathrow and from the north east at Stansted.

Responses

Heathrow Airport noted that they had considered the issue of displaced threshold on runways 27L and 27R in the past. The analysis had shown that using displaced thresholds on these runways is possible with the current and predicted fleet mix at the airport in theory. However, they indicate that using displaced landing thresholds would require significant investment, especially with regard to Rapid Exit Taxiways. It is also likely emissions would increase due to the current layout of the airport. While they intend to continue exploring technological options that would make the introduction of displaced thresholds easier, they are not confident that this could happen in the short-term given the costs and complexity.

At Stansted responses from the airport and others agreed that there would be a small benefit to residents to the northeast of the airport in noise exposure terms by displacing the runway 22 threshold. However, the airport argued that there would be significant infrastructure costs as well as a significant increase in taxi time, fuel burn, ground noise and emissions.

Many of the airlines were concerned about the safety implications of displaced thresholds, particularly with long-haul aircraft at Heathrow. There was also concern about the safety of implementing displaced thresholds in combination with other measures such as increased angles of descent. There was some support for the use of a limited displacement of thresholds, although detailed analysis would need to be carried out.

Government response

We accept the evidence that implementing a displaced landing threshold at Heathrow or Stansted would not be feasible within the next regime. However, we welcome Heathrow's commitment to exploring operational opportunities to reduce noise impacts and the inclusion of displaced thresholds in its document 'A Quieter Heathrow'. At Stansted, on the evidence provided, we accept that the costs appear likely to outweigh the benefits.

Q19: Please provide any information about airspace changes or other operational procedures which could mitigate the impact of night noise in the next regime period

Responses

Industry responses highlighted a number of expected changes to operating procedures and to London airspace which could mitigate the impact of night noise over the coming years. These include:

- The Future Airspace Strategy (FAS).
- London Airspace Management Programme (LAMP).

- Optimising the design of arrival and departure routes and procedures to take into account advances in aircraft technology.
- The ability to design both arrival and departure routes that can be operated with greater accuracy by aircraft using advanced satellite based navigation techniques such as RNAV/RNP.
- The opportunities provided by advanced navigation techniques to allow greater respite for those under the flight path.
- Greater use of Continuous Descent Operations and Continuous Climb Operations.

Local authorities and environmental groups also highlighted the opportunities to mitigate the impact of noise these changes may bring. Many of the respondents would like to see trials taking place over the course of the next regime to assess the costs and benefits of any changes to operational procedures that have the potential to mitigate the impact of noise both in the day and night period. The work being carried out by Sustainable Aviation, especially through its Noise Road-Map, was also supported by many. Residents around Stansted objected to the use of reverse thrust at night and wanted to see its use banned.

Government response

It is clear that there are many initiatives taking place in the coming years which have the potential to mitigate the impact of night noise. However, we consider it unlikely that these will be fully deployed in the proposed regime period. We fully support the trialling of such initiatives to test the costs and benefits and will want to monitor these trials. The Department is currently in the process of revising the Guidance to the CAA on Environmental Objectives (see Chapter 2) which should allow many of these initiatives to happen in a more efficient way while ensuring local communities are consulted in an appropriate manner.

Movement limits

Q20: Do you have any comments to make on the figures relating to movement limits and usage?

Q21: In the absence of any new restrictions, how do you expect demand for movements in the night quota period over the course of the next regime to change?

Responses

A minority of respondents commented on the figures. A number of stakeholders noted the spare capacity at Gatwick and Stansted (particularly in the winter) and suggested that some or all of this should be removed to provide greater protection for residents. However, industry responses pointed out that the slack reflected the economic downturn and should not be removed. Stansted Airport pointed out that

the decrease in utilisation there did not reflect the specific freight market which had remained fairly constant over the period.

A small number of industry responses asked that movements should be increased in the next regime, though the majority argued for no change. Responses from the public generally argued for a ban on night flights. Some pointed out that only one flight was necessary to disturb sleep. Some local authorities also called for a ban, though noted that a phased ban was more realistic.

There was a general consensus among those who answered Q21 that demand for night flights would increase. This was for various reasons. BA pointed to growing demand from Asia, which coupled with demand for overnight flights, would tend to require early morning arrival times in the UK. At Gatwick, airlines would continue to demand high utilisation of their aircraft which would mean demand for slots at the beginning and end of the night quota period. Freight carriers quoted a study by Oxford Economics which predicted the growth of freight traffic will be three times greater than GDP.

A small number of responses challenged the DfT's growth forecasts and cautioned against basing forecasts for night flights on these.

Government response

In line with the objective to maintain stability, the consultation document proposes no change to movement limits in the next three years. Based on growth forecasts, we do not expect this to constrain demand at Gatwick or Stansted over this period.

Noise quota limits

Q22: Do you have any comments to make on the figures relating to noise quota limits and usage?

Q23: Do you agree with our initial assessment of the scope for reducing the noise quota in the next regime without imposing additional costs?

Responses

Gatwick and Stansted airports and its airline users, made the point that recent under-use of noise quota limits has been a reflection of the economic climate and that they expected this under-utilisation to be absorbed with economic growth and more flights. Gatwick emphasised the need to maintain quota in order to facilitate the development of new entrant airlines serving emerging markets.

A number of industry respondents opposed any changes to the regime and were therefore unwilling in principle to consider any changes to noise quotas. Express freight carriers were uniformly against a reduction in quota, primarily because of fears that this would inhibit growth up to maximum movement limits at Stansted.

There was a fairly even split between respondents who agreed and disagreed with our assessment of the scope for reducing the noise quota. A number of local authorities and residents groups pointed out the noise quotas have historically been set much higher than actual need and that the winter season quotas, in particular at Gatwick and Stansted, should be reviewed given the significant slack. Those responses from industry which had considered the analysis indicated an acceptance that there was some scope for reducing quota at Heathrow; fewer accepted this for Gatwick and fewer still for Stansted.

The majority of members of the public who answered these questions were of the view that minimising or banning night movements was more important than reducing noise quota. A number of people expressed the view that the quota was set too high and should in future be set in a way which achieved WHO noise goals.

Government response

We do not propose to change the noise quota limits in the next three years, as we wish to await the outcome of the Airports Commission's work before deciding on whether any further quota limit reductions are justified. See paragraphs 4.27-40 in the consultation document for further discussion of this.

Q24: Do you have any views on the relative disturbance caused by the noise of an individual aircraft movement against the overall number of movements in the night quota period?

Responses

This question was answered by relatively fewer organisations, possibly because of its subjective nature. Many members of the public responded to it. Most pointed out that any aircraft noise at night was relatively more disturbing in any case and many used this question to reiterate calls for a complete ban.

There was a spectrum of responses on the question of relative disturbance. For example, some respondents pointed out that constant noise was debilitating whereas quieter aircraft at less frequent intervals were more bearable; others argued that concentrating aircraft together would be better than spacing them at longer intervals.

Many noted that only one aircraft was needed to cause awakening and after that it could be difficult to get back to sleep. Therefore it was important that the first aircraft was quieter or later. Some responses indicated that more very quiet aircraft would be acceptable than one very loud one. However, others said that even the quieter aircraft types could cause awakening.

Many made the point that people hear a succession of individual events followed by silence and not an average noise. This point was echoed by AEF who noted that disturbance can increase if movements increase even if average noise decreases. Many local authorities linked this point to the argument that using average noise measures was not appropriate for measuring disturbance at night. A number of organisations on all sides linked this to the need for further research.

Some members of the public noted that the time of disturbance was relevant and that the early morning was the critical period when sleep was lighter. A number of community groups noted that background noise was relevant to the disturbance. Some industry responses made the point that movements should be allowed to increase if aircraft are quieter. However, the opposite view was taken by many local authorities who felt that this was not a good argument for increasing movements and that disturbance was more linked to movements than loudness of aircraft.

Some industry responses made the point that the number of complaints could be taken as an indicator of disturbance.

Government response

This question was designed to elicit evidence from the public in particular. Whilst it is clear that the public who responded were all concerned about the effect of night flights on sleep disturbance, the variation in responses confirmed the subjective nature of this disturbance.

We are aware of ongoing international research into the relationship between aircraft noise and sleep disturbance and will continue to monitor this.

The Government accepts that people do not experience noise as a continuous average, particularly at night where movements are less frequent. Whilst accepting that frequency of flights can be a factor in disturbance, the loudness of single events will also be an important factor. For this reason we propose to extend the ban of the noisiest types of aircraft and have mapped the noise exposure associated with such single events (see Q25).

Ban on scheduling or operating the noisiest aircraft

Q25: What are your views on the feasibility of a QC/8 and QC/16 operational ban in the night period? Please set out the likely implications of such a ban and the associated costs and benefits.

Responses

Whilst not all organisations responded to this question, among those who did there was almost unanimous support and consensus that such a ban would be feasible, given the age and numbers of such aircraft. The only dissenting view questioned whether this further restriction could be justified under the balanced approach.

Public responses did not generally respond to this specific question but many reiterated the call for a wider ban.

Government response

Given the very small number of movements of these aircraft types, the Government believes that extending the ban to the entire night period would be feasible without imposing costs and that this would provide the benefit of assurance to local communities that they will not experience such noise events and would prevent any awakenings caused by movements of these noisier aircraft types.

Q26: How many QC/4 aircraft do you expect to be in operation over the next seven years during the night quota period? Is the downward trend at Heathrow expected to continue?

Q27: What are your views on the feasibility of a QC/4 operational ban in the night quota period at any or all of the three airports? Please set out the likely implications of such a ban and the associated costs and benefits.

Q28: Are there more cost-effective alternative measures (such as penalties) to reduce the number of unscheduled QC/4 operations during the night quota period?

Q29: What are your views on the feasibility of an operational ban of QC/4 aircraft at any or all of the three airports during the shoulder periods? Please set out the likely implications of such a ban and the associated costs and benefits.

Responses

Industry responses confirmed that the downward trend was expected to continue. However, it was clear that relatively significant numbers of these aircraft were expected to remain in operation in the night quota period at Heathrow, fewer at Stansted and none at Gatwick. It was pointed out that such aircraft would remain in some airlines' fleets until the early 2020s and might need to be used as substitutes on an ad-hoc basis.

The three airports and the airlines still using QC/4 aircraft all opposed an operational ban. Most other industry respondents were also opposed though some were neutral. Councils, residents groups, consultative committees and the public who responded to this question were generally in favour of a ban in principle.

The B747-400 is the only aircraft in regular service which is rated QC/4 (on departure) and British Airways (BA) is the main carrier using these aircraft at Heathrow. BA submitted evidence that an operational ban of these aircraft in the night quota period would have resulted in 532 flight cancellations in the period 2008-2013 and 142,000 passengers disrupted. IATA claimed that if an operational ban on QC/4 aircraft had been in force in the 2011/2012 period, the total cost for airlines would have exceeded €23.6m at Heathrow.

BA estimated even higher costs of a shoulder period ban, with an estimated 1,016 cancellations and 272,000 passengers disrupted (2008-2013).

At Stansted, it was noted that the QC/4 flights are late running cargo operators carrying perishable goods and the financial impact would be significant if there was a ban. Whilst few such aircraft had recently operated at Gatwick in the night quota period, the Airport opposed any operational ban on the grounds of maintaining operational flexibility.

Some were open to the use of penalties as an alternative, but many industry responses opposed this and noted this would constitute an operating restriction which would have to be justified under the balanced approach. Others advocated the use of higher landing charges. Heathrow noted that they were consulting on increasing fines for breaches of night noise limits, which QC/4 aircraft were more likely to breach.

Government response

The first stage consultation made clear our initial view that the economic costs are likely to remain high in comparison to the benefits and would make the option of tightening the QC/4 ban difficult. The evidence we have received confirms that this view.

However, we are pleased to note that British Airways has recently taken delivery of its first A380s and its announcements that these will be starting to replace B747s this year, including on services operated in the night. Therefore we expect the number of QC/4 movements will show an appreciable decline during the 2014-17 period. We also note the commitment made by Heathrow Airport in its document A Quieter Heathrow that the airport “will tackle the local disturbance that can be caused by night flights, taking steps to reduce the number of aircraft that depart Heathrow late after 11pm at night, and to incentivise airlines to operate the quietest aircraft for early morning arrivals before 6am.”

Taking note of these factors, and consistent with the balanced approach, our conclusion is that the costs of an operational ban would outweigh the benefits in the next regime. However, we would expect the evidence on the feasibility of this option to be reviewed again when considering options for the regime after 2017.

Q30: What is the rationale for operating services at precise times during the night quota period (as they do now)?

The first stage consultation made clear that the Government is aware of economic arguments for retaining the ability to operate services throughout the night. These include the timing of express freight services to fit within a complex international distribution network, the cost of delaying late running scheduled services until the end of a curfew period, and the ability of airlines to operate multiple short haul rotations each day.

Many of the industry responses elaborated these arguments. Other points mentioned:

- Connections to other flights and business passengers wishing to arrive for start of working day.
- Efficient use of airspace and airport facilities.
- Next day delivery.
- The need to distinguish between what is essential to the economy as opposed to what is desirable.
- Dependency on scheduled times from departing airports and the effect of seasonal variance of UK arrival times, whereas many long haul departure airports do not operate 'summer time'.

A majority of individuals responding to this question either felt there was no rationale or wished to see some form of ban on flights.

Government response

The Government continues to accept the economic arguments for night flights. See response to 'costs and benefits' section on how we will use this information.

Questions on respite

Q31: What is the scope for introducing a respite period at Gatwick or Stansted? Please set out the associated costs and benefits.

Q32: What is the feasibility of making Heathrow's voluntary curfew mandatory?

Q33: If you favour a guaranteed respite period, what would be the minimum period which you would consider to be worthwhile?

Q34: 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?

Q35: What are your views on the possibility of fewer unscheduled night flights arising from an increase in daytime arrivals 'out of alternation' or vice versa?

Q36: What value do you place on day time respite compared with relief from noise in the night quota period?

Responses

Among those arguing for no respite periods, recurring themes were:

- Benefits of respite are uncertain and more research is required.
- Other elements of ICAO Balanced Approach should be considered first.
- Operational flexibility is required when daytime flights are delayed, and operations would be affected by respite periods, potentially increasing consumer costs as assets would be used less effectively.

Some respondents said they would be willing to negotiate a respite period if it involved extra slots but recognised the difficulties of implementing such a period (for example due to grandfather rights to slots).

A number of industry and non-industry respondents were opposed in principle to 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.

Many non-industry respondents felt that respite merely shifts the problem and does not resolve it, so a complete ban is required. Some also argued that respite during the day is required. The overall impact on health was the main consideration – not timing or duration of respite period. Some calling for respite said we should mirror international practice, such as at Sydney.

There was a mix of responses on duration of respite period – non-industry respondents with an interest in Heathrow suggested a longer respite period (8 hours) whereas at Gatwick and Stansted respondents suggested shorter periods. Some felt that respite was more important in the 'shoulder periods' when people were getting off to sleep and before waking up.

Industry responses were not in favour of a making the Heathrow voluntary curfew mandatory. Heathrow Airport pointed out that in 2012 there were only three

occasions recorded when the “not before 4.30am” requirement was breached, against a baseline of 22 in 2006. In view of this, they felt there was no need to change the voluntary status.

Non-industry responses took the opposite view, on the grounds that making it mandatory would promote confidence in the curfew. Many would like to see a phased 8 hour ban between 23.00-07.00 (linked to World Health Organisation targets). Industry responses cited the Heathrow night respite trial (See Chapter 5).

Some industry responses favoured schedule smoothing at Heathrow, whereby more flights would be allowed before 06.00 to ensure fewer arrivals on the non-designated runway (‘out of alternation’) between 06.00-07.00. Some responses suggest that the possibility of fewer unscheduled night flights arising from an increase in daytime arrivals ‘out of alternation’ would be difficult to implement due to the capacity constraints in the daytime. Some commented that we should await results of the Operational Freedoms trial.

Gatwick airport indicated that they would be undertaking a night time respite trial (see Chapter 5). Non-industry responses with an interest in Gatwick or Stansted favoured a respite period provided flights are not displaced to other periods.

Government response

We welcome the trials of respite options at the three airports. This is consistent with the Aviation Policy Framework which says that we expect the aviation industry to make extra efforts to reduce and mitigate noise from night flights by seeking ways to provide respite wherever possible.

In terms of sleep disturbance, we are not aware of any conclusive evidence on the benefits of differing durations or timings of respite at night.

It is clear that there are no substantial periods in the night without operations at Gatwick and Stansted. Mandating respite periods, particularly new ones, would be a substantial change and the Government does not wish to make significant changes to the night flying restrictions in the short term. This is in line with the proposed objective to maintain a stable regulatory regime pending decisions on future airport capacity and, in particular, to allow growth in movements up to existing night movement limits and within noise quotas.

Q37: Do you have any views on the extent to which landing fees can be used to incentivise the use of quieter aircraft during the night period?

Responses

The majority of responses were supportive of the use of differential landing fees and the principle of lower fees for quieter aircraft, though some industry responses emphasised that this should be consistent with ICAO and other international agreements. Heathrow airport noted that they had updated their charging system in 2011 to further differentiate between aircraft within the quietest international noise category. This introduced a differential of ten times between the noisiest and quietest aircraft.

Industry responses were overwhelmingly against increasing differential landing fees at night or did not feel increasing landing fees would sufficiently incentivise. Some said that the QC system was a more effective driver of fleet replacement.

Non-industry responses generally supported higher charges with substantial differential in the landing fees for noisier aircraft but some doubted the effectiveness. Some feel charges could be used to fund insulation or compensation schemes or be put to a community fund.

In answering this question, some non-industry responses took the opportunity to call for higher penalties for infringement of departure noise limits and the setting of arrival noise limits.

Government response

As part of the range of options available for reducing noise, the Aviation Policy Framework says that airports should consider using differential landing charges to incentivise quieter aircraft.

The CAA has recently published a review of the impact of noise and NOx landing charges. The Government welcomes this study and encourages airports to consider its recommendations. See paragraphs 5.24-27 in the consultation document for further details.

Q38: Please provide comments and evidence on the extent to which the noise insulation scheme criteria have been met. Where possible please include figures for numbers of properties insulated under the scheme and numbers which are still potentially eligible.

Responses

Many responses suggested improvements to the schemes, as described in Q39. The three airports commented as follows:

Heathrow reported that there are over 40,000 properties potentially eligible under their scheme although take up has been relatively low (approximately 10% take-up). They said that all eligible properties have been invited to participate in their scheme

Gatwick reported that within the overall contours of their various schemes there are 1,187 dwellings with overall take up at 20%. This equates to 243 homes, leaving 944 homes that have not applied. Of the 27 homes that qualify for relocation, four have been relocated

Stansted reported that there were initially 1,044 dwellings captured by the scheme at its commencement and some 600 of these have benefitted

Many of the public responses said they had either not benefited from the respective schemes or wished eligibility to widen. Some respondents made the point that listed buildings were not able to benefit due to planning controls.

Government response

In line with the policy on noise insulation in the Aviation Policy Framework, we continue to expect airports to offer compensation schemes but do not presently propose to exercise regulatory powers in this area. Noting the developments which are already in train, the Government will continue to monitor the voluntary schemes being offered.

Q39: 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? For new schemes, please explain the parameters that you would suggest for the scheme and the rationale for choosing those parameters.

Responses

Heathrow and Gatwick airports referred to work already in hand to review their schemes. Suggestions from non-industry responses for amendments to compensation and insulation schemes are listed below.

- More generous levels of compensation.
- Widen the geographic area and widen eligibility to include more rooms (not just bedroom) and more types of properties (e.g. listed buildings).
- Use additional or alternative metrics for measuring eligibility (i.e. single noise events); a number of respondents would like these linked to World Health Organisation guidelines.
- More transparency (how schemes are implemented, for example progress reports) and simplicity (rationalise existing schemes). The involvement of Airport Consultative Committees (as set out in paragraph 3.41 in the Aviation Policy Framework) in reviewing schemes was welcomed
- More flexibility and quality in the choice of offerings.

- Taper compensation depending on noise level.
- Increase funding from passenger charges, landing fees or Government funding.
- Pay compensation where community facilities are affected.
- Achieve greater consistency with EU and consider best practice (London City Airport was mentioned).
- Create an integrated UK framework for compensation and insulation schemes with other transport modes.

Government response

See response to Q38.

Q40: Do you have any proposals for new or improved economic incentives that could be deployed to incentivise the use of quieter aircraft during the night period?

Responses

Some of the points raised in this question were also raised in Q37 on use of landing fees to incentivise quieter aircraft. Other points mentioned include:

- An amendment to the Air Passenger Duty (APD) scheme or replacement with another duty. Non-industry responses said it should increase while industry responses said reduce it.
- Penalties for arrival and/or departure noise limits.
- More information on airlines' noise performance.
- Financial incentives for research and development and economic incentives to enable industry to invest in quieter aircraft.

Public responses to this question generally considered that economic incentives don't work and only a reduction or ban on movements would be effective. The few who made suggestions included using the slot allocation system to incentivise quieter aircraft and channelling new funds raised to provide compensation to local communities.

Government response

Regarding fines, the Aviation Policy Framework states that airports should regularly review noise controls and the levels of penalties (at least as often as the Noise Action Plan where applicable) in consultation with local communities and consultative committees, to ensure they remain effective. The Department's Aircraft Noise Management Advisory Committee is reviewing the departure and arrivals noise abatement procedures at Heathrow, Gatwick and Stansted, including noise limits and use of penalties, to ensure that these remain appropriately balanced and effective.

On the question of financial incentives for industry, through the Aerospace Growth Partnership, on 18 March, industry and Government published a joint Aerospace Industrial Strategy. Central to the Strategy is an agreement to create an Aerospace Technology Institute (ATI), backed with a commitment of £2bn of joint Government and industry funding over the next seven years, which will provide an opportunity for the UK to gain a competitive edge by developing the key technologies to make aircraft quieter, more environmentally friendly and cheaper to manufacture and operate.

We note that Heathrow Airport has begun to publish a quarterly 'Fly Quiet' league table to benchmark how quiet individual airline fleets are and how quietly they are flown.

Evidence Review

Government response to questions 41-70

We have taken the information on costs and benefits of night flights submitted in response to the Stage 1 consultation into account in assessing the options being proposed as part of this consultation. The decision to introduce a shorter regime, 3 years as opposed to 5 or 6, with minimal changes from the current one, means that the impacts of the proposed options are expected to be very similar. Where there are evidence gaps or uncertainties which are relevant to the options under consideration we have highlighted these in the draft Impact Assessment and have invited respondents to submit further evidence to help us address these.

We expect to use the full range of information submitted in response to the first stage consultation more fully in assessing options for the following regime due to start in 2017. As explained elsewhere in the consultation document, we expect to consult on a full range of options once the Government of the day has fully considered the recommendations of the independent Airports Commission. We will also continue to keep under review our published transport appraisal guidance - WebTAG - and update as necessary to reflect developments in the available evidence, including that submitted as part of the Stage 1 consultation.

Summary of responses to questions 41-70

Q41: Is there any other evidence we should consider in assessing the response of airlines and air transport users to changes in the night flights regime?

Overall Summary

A variety of other evidence was suggested. Industry respondents suggested possible shifts in traffic and resulting impacts on profitability, as well as noise and pollution impacts at other airports.

Non industry respondents stressed the need for greater evidence and independent scrutiny of a number of pieces of research commissioned by industry. This was a consistent theme throughout the evidence review section. In particular they felt government should strengthen the evidence around sleep disturbance through conducting more research and commission a passenger opinion survey to greater understand passengers' preferred arrival times.

Q42: Is there any reason why we should not seek to ensure consistency with the Aviation Appraisal Guidance approach to assessing air passenger impacts?

Overall Summary

Industry respondents generally agreed with using the Aviation Appraisal Guidance (AAG) approach although they felt it should take into account air freight, wider economic and connectivity impacts. There was some scepticism around the AAG approach amongst non industry respondents with some claiming it was impossible to put a monetary value on sleep disturbance.

Furthermore some stressed that they did not think cost benefit analysis (CBA) was appropriate in some cases, sighting the need for basic standards which cannot be traded off. A number of respondents argued that the assessment of options should not take account of impacts on non-UK residents, so as to ensure consistency with the HM Treasury Green Book.³

Q43: What are your views on how we should assess the impacts on air passengers associated with a change in the night flights regime, if we are unable to use the Department's aviation models?

³ <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>

Overall Summary

It was generally suggested that off-model analysis should be used if needed. Suggestions included Oxford Economics' assessment of catalytic impacts⁴ as well as shifts in traffic to other airports and modes. Some suggested adapting the aviation model questioning in order that it reflects the impact that the time of day that a passenger is able to fly has upon the attractiveness of an airport. One respondent suggested an expansion of the regime could be assessed as an expansion of capacity.

Non industry respondents again stressed the need for a passenger opinion survey to greater understand passengers' preferred arrival times.

Q44: Do you think there is merit in applying the approach employed by CE Delft? If so, do you agree that it is reasonable to assume that business passengers and transfer passengers prefer to arrive on a night flight, if they would choose to do so if one were available? What are your views on what we should assume about terminating passengers' preferred arrival times and about passengers' preferred departure times?

Q45: Do you agree that the impacts on passengers who decide not to travel (or become able to travel) as a result of the change in night flights regime could be critical to the balance of costs and benefits?

Q46: Are you aware of any evidence that we could use to value the impacts on passengers who decide not to travel or (become able to travel) as a result of the change in night flights regime?

Overall Summary

Industry respondents were highly critical of CE Delft's approach, claiming that it did not give high enough weight to wider economic impacts and gave too much weight to sleep disturbance impacts. They also tended to agree with Q45 and stressed the wider economic costs of passengers not travelling in terms of lost connectivity and growth. One group suggested that the current situation must by definition represent the preferences of passengers as otherwise they would vote with their feet.

Little evidence on how to value impacts of passengers deciding not to travel was put forward, although some respondents suggested we should look at the impacts on the welfare of passengers and profits of cargo owners from having to move away from their preferred flight times. Some specific case studies on airline passenger preferences were also sighted.

⁴ The wider spillover benefits to other sectors of the economy, including benefits to employment and growth.

Non industry respondents generally supported CE Delft's methodology. In response to Q45 non industry respondents largely accepted there would be a cost but many suggested this is likely to be small and that important business flights would be reallocated to the day.

Q47: Do you think that the method used by Oxford Economics (2011) to assess the impacts on productivity of changes in business usage of aviation (the approach is described in paragraphs J22-23 of Annex J) would adequately take account of the impact on air freight service users of changes in the current night flights regime?

Q48: Do you think that, were we to employ the method used by Oxford Economics (2011) to assess the impacts of changes in business usage of aviation on UK productivity (the approach is described in paragraphs J22-23 of Annex J), we would need to isolate the impact on business air passengers in our assessment of air passenger impacts in order to avoid double-counting of business air passenger impacts?

Q49: Is there any other evidence or information that we should consider in assessing the impact on air freight service users of a change in the night flights regime?

Overall Summary

Industry respondents were supportive of the use of the Oxford Economics methodology although some raised concerns over whether it fully assessed the impact on cargo and again stressed the need to consider indirect and wider economic impacts. One group sighted two studies which could be used to augment the Oxford Economics analysis in this area. The Oxford Economics response suggested that the approach need not be precisely as originally set out in their 2006 report but that this would be a useful starting point.

Non industry respondents again raised strong objections and concerns with the work and independence of Oxford Economics and suggested independent analysis and scrutiny was needed. One local authority suggested looking at reports on the ban of night flights at Frankfurt and another group suggested an assessment of the value of the type of freight being transported.

A number of detailed submissions were received from air freight companies detailing the size and importance of the air freight sector and the consequences of a change in the night flights regime. Particular reference was made to the hub and spoke model of distribution as well as the importance of air freight to other sectors for after

service care, inventory management and in reducing purchase costs. Other respondents highlighted the need for night freighter flights underpinned by daytime passenger bellyhold⁵ capacity.

Most respondents broadly agreed with Q48.

Q50: Is there any reason why we should not seek to ensure consistency with the Aviation Appraisal Guidance approach to assessing airline and airport impacts?

Overall Summary

All respondents generally agreed it made sense to ensure consistency with AAG. Some industry groups highlighted concerns about freight, whilst non industry respondents again stressed that non UK-residents and firms should not be included in the analysis, so as to ensure consistency with HMT Green Book.⁶ One respondent suggested that any aviation noise assessments should be based on research on aviation only and not other forms of transport.

Q51: What are your views on how we should assess the impacts on profits, if we are unable to use the Department's aviation models?

Q52: Do you agree that there is merit in our applying a similar approach to that employed by Oxford Economics to estimate the economic value of night flights at Heathrow? If so, are you able to provide any evidence of how much freight is carried on night flights at the designated airports? What factors should we consider in assessing the applicability of the available profits data to night flights at the designated airports?

Q53: Is there any other evidence we should consider in assessing the impacts of a change in the night flights regime on airlines and airports?

Overall Summary

Industry respondents supported the use of Oxford Economics' approach but also stressed the need to consider the aviation industry as a whole including airports,

⁵ [Cargo](#) stowed under the main [deck](#) of an aircraft.

⁶ Ibid.

airlines, freight and general/business aviation as well as the wider impacts to the UK economy. Other approaches suggested included: evaluating the profitability of each individual night flight and therefore working out the loss to passengers, airlines and the economy from any disruption to that flight; producing an assessment of the night noise regime in comparison to other European airports; and using the baseline assumption that air-transport is competitive and therefore the current situation represents the optimal outcome.

Non industry respondents argued that there should be no change in profit as night time demand should switch to the day time. Furthermore they argued that all three airports are subject to price cap regulation and are likely to continue to charge up to the price cap, and that airlines would be expected to pass extra costs through to consumers. It was suggested that where profits are assessed a standard marginal accounting framework should be used rather than the Oxford Economics average profit approach and that profits to non-UK business should not be included in the appraisal. Many respondents again raised concerns over the independence of Oxford Economics.

It was also suggested that a ban or reduction in night flights would improve relationships between local communities and an airport operator and that this should be considered as a benefit and appropriately monetised.

A range of respondents highlighted the difference between bellyhold and designated cargo freight operations and some were unable to find the Oxford Economics report.

Q54: Do you agree that the approach proposed by the Civil Aviation Authority (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?

Q55: Is there any other evidence, not considered by the CAA in their literature review, which we should consider in assessing the noise impacts of a change in the night flights regime?

Overall Summary

The majority of respondents indicated that the CAA report was a step in the right direction but that further work was needed. Industry respondents highlighted the high level of uncertainties and the difficulty this would present in monetisation. Some groups also went on to question some of the assumptions on which CAA's report was based and suggested the establishment of a working group to address these issues.

Airports and airlines also highlighted the possibility of a switch to/from other airports and other transport modes if night flights were reduced/increased at one airport and the resultant noise implications. One respondent also referred to a 2004 study

commissioned by the German government and conducted by the German Aerospace Centre which found a limited effect of night flights on sleep disturbance.

Non industry respondents questioned whether monetisation of some impacts was appropriate in the first place. Many stressed the need to evaluate further impacts, in particular: general annoyance, next day productivity, and child development. They also supported the establishment of lower decibel noise contours.

Some non-industry groups questioned the appropriateness of Leqs (which look at the average noise level over a period) and preferred a system of noise measurements based on individual events. They also suggested DfT take forward the work of the ANASE study⁷. Some non-industry groups claimed that the CAA report had not taken into account WHO guidelines and studies as well as possible impacts of learning and development of children.

Non industry respondents also stressed the need for personal experiences of residents to be taken into account as qualitative evidence to sit alongside any quantitative evidence produced.

Noise effects were also mentioned in response to a number of different questions and for ease are summarised below.

One respondent mentioned a recently launched programme – WideNoise – that could provide both qualitative and quantitative data on the impact of aviation noise on residents.

One local authority another non industry respondent also highlighted the need to take into account legislative changes that will allow offices to be converted into homes and the effect this will have on the number of residents affected by night noise.

Other responses suggested that the AAG approach should take account of the entire extent of people affected by aircraft noise, not only those within the pre-determined noise contour.

Q56: Do you agree that we should ensure that the method used to assess air quality impacts should be proportionate to the proposals under consideration?

Q57: Is there any other evidence we should consider in assessing the air quality impacts of changes in the night flights regime?

Overall Summary:

⁷<http://webarchive.nationalarchives.gov.uk/+http://www.dft.gov.uk/pgr/aviation/environmentalissues/Anase/>

Industry respondents generally agreed that the method should be assessed proportionately to the proposals under consideration. However, they also noted that changes in night regulations do not automatically decrease the overall number of flights. One freight organisation pointed out that some of the proposals in this consultation could have some negative impact on air quality (e.g. increasing the angle of descent). Some also suggested that the impact of NO_x emissions should be considered only if robust evidence can be produced.

In terms of additional evidence, industry respondents suggested considering the type of new aircraft being ordered and delivered for the next 5 to 7 years, since new aircraft types tend to have less negative effect on air quality. Some respondents noted that the Government should consider the potential trade-off between air quality and noise.

Non industry respondents expressed their concerns about the fact that the air around Heathrow already breaches UK and EU limits on air pollution. Again, they would welcome if NO₂ was included in the assessment as well.

Some non industry groups noted that the proportionality should also relate to the possible changes in fleet make-up following the change in regulations arguing that different planes have different impact in terms of emissions and that this should be taken into account. Some groups emphasised that the WebTAG methodology does not allow for the inclusion of associated road traffic and airside operations in its impact calculations.

Many respondents stressed the need to take into account the possible changes in local air quality emission at other airports if night flight were reduced/increased at another airport. This included emissions resulting from road transportation due to a potential shift of traffic to other airports.

Q58: Do you agree with our proposed approach? Is there any evidence on non-CO₂ climate change impacts we should consider?

Overall Summary

Industry respondents generally agreed with the proposed approach. In terms of non-carbon emissions, they found the research in this area uncertain and suggested that these emissions should not be included in any modelling on this occasion. They again suggested that reducing night flights may only shift the flights to other periods of day or other airports and hence it would not improve overall air pollution. In some cases this may result in less efficient operations, congestion and increased emissions.

Non industry respondents suggested including an assessment of the likely abatement cost of aviation's compliance with the Climate Change Act, the

differences in the impact of day and night flights on air pollution, as well as the emissions from associated road traffic to and from the airport and from airside operations.

Q59: Is there any reason why we should not seek to ensure consistency with the Aviation Appraisal Guidance approach to assessing public accounts impacts?

Overall Summary

Industry respondents generally agreed on using the AAG approach to ensure consistency whilst pointing out several areas where the AAG could be improved – e.g. in its treatment of corporation and employment taxes.

Some non-industry respondents expressed strong objection to including consideration of public accounts in the evaluation of this matter. They considered it would be fundamentally wrong to monetise health and wellbeing and then balance this against objective variables such as the effect on the public accounts. One group suggested that should night flights be restricted or discouraged, then this would not mean an automatic loss of all night passengers, some passengers would switch to a daytime flight or to another airport and the negative impact on APD receipts would thus be proportionately smaller. Some groups again stressed the need for a passenger opinion survey as that could establish what proportion of passengers would decide not to fly altogether as a response to the new regime.

Q60: What are your views on how we should assess the impacts on the public accounts, if we are unable to use the Department's aviation models?

Q61: Do you agree that there is merit in our applying a similar approach to that employed by Oxford Economics to estimate the impact on APD revenues?

Q62: Do you agree that the impact of any change in the night flights regime is unlikely to have a significant impact on employment (see next section), and therefore any impact on employment taxes will be minimal?

Q63: Is there any further evidence we should consider in attempting to assess the indirect impact of a change in the night flights regime on indirect taxation revenue across the rest of the economy?

Overall Summary

Most industry respondents felt that the Department's model may not be appropriate and additional channels of impact on public accounts (other than APD) should be included, e.g. employment taxes and corporation tax. Most supported the application of a similar approach to that employed by Oxford Economics. One respondent also called for any work to tie into the review of APD revenues led by HM Treasury into the overall impact of APD on the UK economy. Another group outlined several possible calculation methods for corporation tax – the Oxford Economics approach or a more granular approach using public sources such as HMRC data, etc.

Non industry respondents again expressed their scepticism about incorporating indirect effects (such as impact on the public accounts) in the evaluation as well as scepticism of the particular approach used by Oxford Economics. Some said they could not comment as they were not able to obtain a copy of the Oxford Economics report.

Respondents greatly diverged in their views to Q62. Most industry groups generally disagreed with the statement. They stressed that the presented argument (i.e. any change in the night flights regime is unlikely to have an impact on employment) would work only theoretically. They questioned the assumption of perfect labour markets, and further pointed out that the UK does not enjoy full employment. Therefore, they doubted that the unemployed labour would be easily reabsorbed into the workforce in another sector. It was suggested that such labour is more likely to be unemployed at least for some period of time. This could translate into a loss in employment tax revenue and increased spending on benefit claims.

Additionally, several respondents noted that jobs in the aviation industry are highly specialised. Hence, those who would be pushed into switching jobs could face a salary sacrifice (which would again bring lower employment tax revenue). One respondent quoted the Oxford Economics report, implying that restricting night flights is likely to have a negative employment impact that could persist for several years. Another suggested that tax revenue may be affected through increased/decreased shipment of goods.

One industry respondent presented a neutral view, and suggested that the loss of employment taxes should be estimated but that it should be acknowledged that the net loss (taking into account the redistribution of labour) would be less than the gross loss.

Non industry respondents mostly agreed with the view that any change is unlikely to have any impact on employment. Some suggested that there could be an economic benefit resulting from releasing low-productivity night employment for more productive daytime employment. Some noted that the reduction of night flights would result in less sleep disturbance which could, in effect, translate into higher productivity of those living near airports. One group suggested that a more restrictive night flights regime would result in fewer UK residents taking overseas holiday and hence it could benefit domestic business and employment.

Q64: What are your views on our employing a similar approach to that employed by Oxford Economics and Optimal Economics in assessing the impact of a change in the regime on UK productivity? Do you agree that if we were to employ this approach we would need to make adjustments to avoid double counting the benefits to business passengers and freight service users?

Q65: Is there any further evidence we should consider in attempting to assess the impact of a change in the night flights regime on UK productivity?

Overall Summary

Industry respondents mostly agreed on employing a similar approach to that of Oxford Economics and Optimal Economics. There were some additional suggestions, such as using a micro-level approach or ensuring that freight and express mail operations are included. Some stressed the need to consider the impact of a restricted night flights regime on day operations and a consequent need for airlines to purchase additional aircraft and employ more crew. This could result in a loss of productivity, higher costs and hence increased fares for consumers.

Some respondents also emphasized that the UK will face the opportunity cost in productivity and growth for having fewer direct links to emerging economies. Whilst other groups noted that Heathrow is already at full capacity and any additional restrictions of night flights will lead to a further loss in its long-haul connectivity and international competitiveness.

Non-industry respondents highlighted several issues with the Oxford Economics approach. Firstly, they emphasized one point that the Department noted in the consultation document: the causality between aviation and productivity is not as clear as Oxford Economics report suggests. Secondly, several groups again questioned the independence of Oxford Economics. They urged the DfT to be cautious in using their approach and suggested that the Department seeks independent advice or uses a similar approach to WebTAG for domestic schemes. Further suggestions were to use data from Health Impact studies and consider the reduction in productivity of the residents disturbed by night flights.

All respondents agreed that adjustment should be made to avoid double counting.

Q66: Do you agree with our proposal to assess the impact on tourism of a change in the night flights regime qualitatively? If not, why not, and what would you suggest as an alternative?

Q67: Is there any further evidence we should consider in attempting to assess the impact of a change in the night flights regime on UK tourism?

Overall Summary

Industry respondents mostly supported the proposed qualitative assessment. One airport provided a detailed summary of the effect of night flights on international tourism. Others emphasised the lack of evidence regarding the daily spending of tourists on shorter trips, suggesting that those on shorter trips may contribute more intensively.

The answers of non-industry respondents were mixed. Some groups noted that they were not provided with sufficient details about this qualitative assessment and therefore they were not able to respond. Some other groups suggested looking at the impacts on the real economy, noting that tourism is, in effect, transferring wealth out of the country. There were also suggestions that benefits to foreign nationals should not be used as an argument for imposing costs on British residents.

NB: THERE WAS AN ERROR IN Q67, WHICH SHOULD HAVE DISCUSSED TOURISM RATHER THAN PRODUCTIVITY IMPACTS. AS A RESULT Q67 DUPLICATED Q65 AND LIMITED RESPONSES WERE RECIEVED.

Q68: Do you agree with our proposed approach to considering the potential impact of a change in the night flights regime on UK employment? If not, why not, and what would you suggest as an alternative?

Q69: Is there any further evidence we should consider in attempting to assess the impact of a change in the night flights regime on UK employment?

Overall Summary

Much reference was made to previous answers to Q62, summarised above. Again respondents diverged in their opinions. One respondent suggested a simpler approach to that used by Oxford Economics, they proposed to simply calculate employment per passenger and then multiply by the change in passengers caused by a change in the night flights regime.

One non-industry respondent also noted that it is misleading to talk in narrow terms about UK airports creating only UK jobs with the current freedom of movement that exists. They also noted that the employment in the UK aviation sector has rapidly decreased over last 10 years, even though the number of passengers increased by 17%.

Q70: Are there any other impacts, not considered above, that we should consider in assessing the impacts of a change in the night flights regime (e.g. impacts related to the way people travel to and from the airport)? If so, what evidence should we consider in assessing these impacts?

Overall Summary

A variety of other effects was suggested. Because of the EU 261 Regulation, Airlines suggested that a change to the night flight regime could create or contribute to flight delays and higher compensation claims from passengers (as imposed by the EU 261 Regulation). This will have a significant negative effect on the profitability of the industry and hence it should be factored in the financial modelling of the Department.

Non industry respondents suggested taking into account: the differential effects of night flights on rural versus urban economies; surface noise and night road traffic resultant from night flights; as well as the loss of productivity of disturbed residents. Many emphasised the need for improved access to airports during early morning and late night hours.