

Title: Aviation Policy Framework IA No: DfT00141 Lead department or agency: DfT Other departments or agencies: DEFRA, DECC, HMT, BIS	Impact Assessment (IA)		
	Date: 27/06/2012		
	Stage: Consultation		
	Source of intervention: Domestic		
	Type of measure: Primary legislation		
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Summary: Intervention and Options	RPC: RPC Opinion Status
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Cost of Preferred (or more likely) Option			
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANCB on 2009 prices)	In scope of One-In, Measure qualifies as One-Out?
£-2.4m	£-2.0m	£0m	Yes
			Zero Net Cost

What is the problem under consideration? Why is government intervention necessary?

Aviation makes a significant contribution to the UK economy and provides international connectivity to enable the UK to thrive in the highly competitive global economy. However, aviation is associated with a number of market failures (“externalities”) in terms of noise and emissions. There are also barriers to the free operation of markets. Government intervention is therefore required to address aviation’s environmental impacts and to help remove barriers to free markets. This is required to enable aviation to contribute towards economic growth, whilst playing its part in delivering our environmental goals and protecting the quality of life of local communities.

What are the policy objectives and the intended effects?

- to help make better use of existing infrastructure at London’s congested airports of Gatwick, Stansted and Luton.
- promoting good health and good quality of life through the effective management of noise in the context of Government policy on sustainable development. Noise impacts are to be limited, and where possible reduced over time.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

The set of policies 1a-1c included in the Aviation Policy Framework are:

- 1a. Extending the UK’s existing regional fifth freedoms policy to Gatwick, Stansted and Luton.
- 1b. Extend the role of the CAA to improve transparency and independent oversight of airports’ noise management
- 1c. Set threshold level for measurement of noise exposure around designated airports at a lower level of 55 dBA Lden.
- 1d. Set threshold level for measurement of noise exposure around designated airports at a lower level of 54dB LAeq,16h with an 8 hour night Leq.

Will the policy be reviewed? Yes. If applicable, set review date: tbc (within 3-5 years of implementation)					
Does implementation go beyond minimum EU requirements?			N/A		
Are any of these organisations in scope? If Micros not exempted set out reason in Evidence Base.	Micro No	< 20 No	Small No	Medium Yes	Large Yes
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)			Traded:		Non-traded:

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible SELECT SIGNATORY: _____ Date: _____

Summary: Analysis & Evidence

Policy Option 1a

Description: allow foreign airlines to carry passengers between Gatwick, Stansted and Luton Airports and another country as part of a service that begins or ends in the airline's home country

FULL ECONOMIC ASSESSMENT

Price Base Year 2012	PV Base Year 2012	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: N/K	High: N/K	Best Estimate: N/K

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	N/K	N/K	N/K
High	N/K	N/K	N/K
Best Estimate	N/K	N/K	N/K

Description and scale of key monetised costs by 'main affected groups'

Figures to be input following consultation

Other key non-monetised costs by 'main affected groups'

To be confirmed following the consultation, but some costs are likely to include:

- UK airlines may face some disbenefit as a result of increased competition from foreign competitors. This could particularly be the case for those that operate at Heathrow as their main base (but this increased competition would benefit UK consumers).
- Regional airports may face some increased competition as the extension could dilute the incentive behind the original regional policy to encourage their growth.
- Heathrow airport may face some disbenefit (a transfer to other airports) from increased competition from Gatwick, Stansted and Luton.

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	N/K	N/K	N/K
High	N/K	N/K	N/K
Best Estimate	N/K	N/K	N/K

Description and scale of key monetised benefits by 'main affected groups'

Figures to be input following consultation

Other key non-monetised benefits by 'main affected groups'

To be confirmed following the consultation, but some benefits are likely to include:

- UK consumers could be the major beneficiaries from the cost and time savings brought about by the introduction of extra capacity and more convenient and frequent services.
- Extension of the existing regional fifth freedoms policy to Gatwick, Stansted and Luton Airports could enable these airports to compete more aggressively with Heathrow.

Key assumptions/sensitivities/risks

Discount rate (%)

3.5%

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			In scope of OIOO?	Measure qualifies as			
Costs:	N/K	Benefits:	N/K	Net:	N/K	No	N/A

Summary: Analysis & Evidence

Policy Option 1b

Description: Extend the role of the CAA to improve transparency and independent oversight of airports' noise management

FULL ECONOMIC ASSESSMENT

Price Base Year 2012	PV Base Year 2012	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low:	High:	Best Estimate: -2.0

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	N/A		
High	N/A		
Best Estimate	N/A	0.24	2.0

Description and scale of key monetised costs by 'main affected groups'

- These costs are expected to be borne by the public sector. If given a formal function in legislation, the CAA may charge industry for the time it spends on this additional role. The £0.24m figure per annum is a rough approximation of the CAA's costs for this. If the CAA charges industry these additional costs, industry could potentially lead to increases in fares for passengers. The extent of the cost to industry and follow on impacts on fares is largely dependent on the exact role that the CAA would play and the number of airports that it would be involved with.

Other key non-monetised costs by 'main affected groups'

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	N/A	N/K	N/K
High	N/A	N/K	N/K
Best Estimate	N/A	N/K	N/K

Description and scale of key monetised benefits by 'main affected groups'

Figures to be input following consultation

Other key non-monetised benefits by 'main affected groups'

- the role of the CAA as an independent body is expected to foster greater trust and facilitate the building of better relations between the airport and local communities.

Key assumptions/sensitivities/risks

Discount rate (%) 3.5%

Significant uncertainty over the exact increase in costs as a result of the CAA being involved in oversight of airports' noise management. This is because the exact extent of the role that the CAA would play and the number of airports with which it would get involved is uncertain at this stage.

BUSINESS ASSESSMENT (Option 2)

Direct impact on business (Equivalent Annual) £m:			In scope of OIOO?	Measure qualifies as
Costs: £0m	Benefits: £0m	Net: £0m	Yes	Zero Net Cost

Summary: Analysis & Evidence

Policy Option 1c

Description: Draw noise contours at a lower noise level of 55 dBA Lden for the noise designated airports (currently Heathrow, Gatwick and Stansted)

FULL ECONOMIC ASSESSMENT

Price Base Year 2012	PV Base Year 2012	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: -£0.34	High: £-0.43	Best Estimate: -£0.39m

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low		£0.04	£0.34
High		£0.05	£0.43
Best Estimate		£0.045	£0.39

Description and scale of key monetised costs by 'main affected groups'

Setting noise threshold at 55 dBA Lden would impose additional costs approximately in the range of £40-50k per annum. We assume a best estimate of £45k per annum.

Other key non-monetised costs by 'main affected groups'

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	N/K	N/K	N/K
High	N/K	N/K	N/K
Best Estimate	N/K	N/K	N/K

Description and scale of key monetised benefits by 'main affected groups'

Figures to be input following consultation

Other key non-monetised benefits by 'main affected groups'

Extending the contour acknowledges that some people who currently live outside the 57dB Leq contour could also be annoyed by aircraft noise. The 55 Lden measure also takes account of night time noise. This may inform future decisions on measures taken to mitigate noise. It is therefore useful to have noise contours at the lower lever to monitor the number of people potentially affected by aircraft noise, and to measure reductions in the number of people who are affected by noise. The choice of 55Lden is consistent with the obligation to carry out five yearly mapping of noise under European law.

Key assumptions/sensitivities/risks	Discount rate (%)	3.5%
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BUSINESS ASSESSMENT (Option 3)

Direct impact on business (Equivalent Annual) £m:			In scope of OIOO?	Measure qualifies as
Costs: £0m	Benefits: £0m	Net: £0m	No	N/A

Summary: Analysis & Evidence

Policy Option 1d

Description: Draw noise contours at a lower noise level 54dB LAeq,16h with an 8 hour night LAeq for the noise designated airports (currently Heathrow, Gatwick and Stansted)

FULL ECONOMIC ASSESSMENT

Price Base Year 2012	PV Base Year 2012	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: -£0.09	High: £-0.13	Best Estimate: -£0.11m
COSTS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)	
Low			£0.01	£0.09	
High			£0.015	£0.13	
Best Estimate			£0.0125	£0.11	
Description and scale of key monetised costs by 'main affected groups'					
The additional costs of producing 54dB LAeq,16h noise contours are zero compared to the current practice of producing 57dB LAeq,16h noise contours. If LAeq,8h night contours are also produced then the costs are £10-15k per annum. We assume a best estimate of £12.5k per annum.					
Other key non-monetised costs by 'main affected groups'					
BENEFITS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)	
Low	N/K		N/K	N/K	
High	N/K		N/K	N/K	
Best Estimate	N/K		N/K	N/K	
Description and scale of key monetised benefits by 'main affected groups'					
Figures to be input following consultation					
Other key non-monetised benefits by 'main affected groups'					
Measuring noise at the lower level will acknowledge that some people who currently live outside the 57dB Leq contour could also be significantly annoyed by aircraft noise. It could mean that future airport policy is considered to be more credible with respect to noise and based on sound evidence.					
Key assumptions/sensitivities/risks				Discount rate (%)	3.5%

BUSINESS ASSESSMENT (Option 4)

Direct impact on business (Equivalent Annual) £m:			In scope of OIOO?	Measure qualifies as
Costs:	Benefits:	Net:	No	N/A

Evidence Base (for summary sheets)

Background

Aviation makes a significant contribution to the UK economy and provides international connectivity to enable the UK to thrive in the highly competitive global economy. However, aviation is associated with a number of market failures (“externalities”) in terms of noise and emissions. There are also barriers to the free operation of markets. Government intervention is therefore required to address aviation’s environmental impacts and to help remove barriers to free markets. This is required to enable aviation to contribute towards economic growth, whilst playing its part in delivering our environmental goals and protecting the quality of life of local communities.

The Government has committed to producing a sustainable framework for UK aviation to replace the previous administration's The Future of Air Transport White Paper (2003). The objective is to develop a long-term, high-level framework for aviation which:

- sets out the Government's aims for aviation and the parameters within which they can be delivered,
- takes account of the positive and negative impacts of aviation, and achieves a sustainable balance between them,
- integrates aviation policy with wider Government objectives, including delivering sustainable economic growth, combating climate change and protecting the local environment,
- builds consensus among those who rely on and are affected by aviation; and
- provides industry with the clarity it needs to invest in the UK over the long term.

To ensure a wide range of stakeholders have had an opportunity to contribute to the development of the policy framework, we have committed to three stages of development. The publication of a scoping document was the first stage in March 2011. The aim of the scoping document was to define the debate as we develop our long-term policy for UK aviation. The document set out strategic questions which we compiled following a short period of informal engagement with a representative sample of stakeholders across the aviation sector, wider business groups, local government, and environmental organisations. We now want to broaden the debate.

This Impact Assessment is part of the second stage, and accompanies the draft policy framework which takes account of the responses received to the scoping document and is being published for consultation. Following this consultation, the third stage will be to finalise the framework, which will be published by March 2013.

Impact Assessment Proposals

This impact assessment is not a comprehensive assessment of all the proposals set out in the accompanying draft framework. Rather, it provides an assessment of the proposals that can be specified at this stage and their costs and benefits identified. Other proposals in the draft framework may instead set out a principle to be followed, such as increasing the liberalisation of regional airports being explained in the policy framework. If specific proposals are brought forward at a later stage, consistent with the principles being consulted on in the draft framework, an impact assessment will be produced at that time and published alongside the consultation.

There are four proposals contained in this impact assessment. These are not alternatives for one another, but any combination or all three could be introduced. They are listed below and

accompanied by separate summary sheets to provide clarity on the individual impact of each proposal. Option 1a is a proposal to extend an existing regional airport fifth freedom policy to Gatwick, Stansted and Luton Airports. This would allow a foreign airline to carry passengers between these three London airports and another country as part of a service that begins or ends in the airline's home country. Option 1b is proposing a new role for the Civil Aviation Authority (CAA), in the form of providing independent oversight of airports' noise management. This is expected to have the effect of improved accountability from airports, ensure greater transparency and generate greater trust with local communities. Option 1c considers options for reducing the threshold level of noise for the purposes of noise mapping at the three airports at which the Government sets noise controls (Heathrow, Gatwick and Stansted) to 55 dBA Lden. Option 1d considers reducing the threshold at the same airports to 54dB LAeq,16h with an 8 hour night Leq.

Policy Option 1a Fifth Freedoms

Extension of regional fifth freedom policy to Gatwick, Stansted and Luton Airports

The Government announced last year¹ that to improve connectivity at an international level and to help make better use of existing infrastructure at London's congested airports, it would consult on extending the UK's existing regional fifth freedoms policy² to Gatwick, Stansted and Luton. The granting of fifth freedoms would allow a foreign airline to carry passengers between these three London airports and another country as part of a service that begins or ends in the airline's home country (e.g. a Singaporean airline would be able to operate a service from Changi Airport to Gatwick Airport and then on to JFK Airport in New York, picking up passengers at Gatwick and carrying them to JFK).

Costs and benefits

The costs and benefits will be informed following the consultation. Respondents are asked to consider whether extending the UK's fifth freedom policy to Gatwick, Stansted and Luton is likely to attract new services and additional stop-over flights to these airports and whether it will deliver net benefits to the UK.

Some of the main costs are expected to be:

- UK airlines may face some disbenefit as a result of increased competition from foreign competitors. This could particularly be the case for those that operate at Heathrow as their main base.
- Regional airports and passengers based in regions other than the South East of England may face some increased competition as the extension could dilute the incentive behind the original regional policy to encourage their growth. Consumers in the regions could have less choice of flights or face having to travel further to get the same flight.
- Heathrow airport may face some disbenefit from increased competition from Gatwick, Stansted and Luton.

The Civil Aviation Authority found³ that in the case of the UK's regional airports such a policy would deliver net benefits to UK interests in the short term were airlines to take up the new opportunities made available on a sustainable commercial basis, and therefore it is expected that extending the policy to include Gatwick, Stansted and Luton would also benefit the UK, supporting London's and the UK's aviation connectivity and attracting new services and additional stop-over flights to these airports. This will be tested through consultation.

¹ National Infrastructure Plan 2011 published in November - see http://cdn.hm-treasury.gov.uk/national_infrastructure_plan291111.pdf

² See <http://www.dft.gov.uk/publications/relaxation-of-restrictions-on-international-services-from-uk-regional-airports/>

³ An Economic Assessment of the Impacts of Granting Fifth-Freedom Rights to Passenger Services from UK Regional Airports - <http://www.caa.co.uk/default.aspx?catid=589&pagetype=90&pageid=5043>

Some of the main benefits are expected to be:

- UK consumers could be the major beneficiaries from cost savings and time savings (decreases in waiting times) brought about by the introduction of extra capacity and more convenient and frequent services.
- Extension of the existing regional fifth freedoms policy to Gatwick, Stansted and Luton Airports could enable these airports to compete more aggressively with Heathrow, to the benefit of consumers.

Changes in Numbers of Inbound and Outbound Tourists

There are also potential benefits in terms of increased inbound tourism to the UK and its value to the Exchequer. There is however the potential for increased outbound tourism from the UK which could itself represent a cost to the Exchequer. The overall size of these flows is unclear. For example, the way in which people respond to changes in the cost of travel is not fully understood. Whilst there is strong evidence that when costs increase people take fewer trips, it is possible that people choose to take fewer but longer holidays abroad.

The extent to which any surplus of outbound over inbound tourism represents a loss to the UK is also unclear. Even if we could quantify the change in the size of any flows, it would be wrong to conclude that any surplus of outbound tourism represents a loss to the UK - a significant proportion of any money spent in the UK would also have been spent on imported goods.

One In One Out

The policy is a principle of intent (not regulatory) to be more flexible in granting fifth freedoms to foreign carriers at London's congested airports. This policy would be subject to the same conditions that apply to the UK's existing regional fifth freedoms policy, namely that the granting of such rights would be subject to a case by case consideration within the context of the current position in the UK's bilateral aviation relationship with the country concerned (for example we might not grant such rights if there were concerns that there were not a level competitive playing field in the market, such as if it were argued that the airline in question was in receipt of state aid that was distorting competition).

This proposal is non-regulatory and a subsequent decision would be needed before there were any impacts on business (impacts are not a direct result of this decision). As a result it is not in scope of One-In-One-Out.

Policy Option IB Extending the CAA's role to improve transparency and independent oversight of airports' noise management

Under the European Noise Directive 2002/49, Airports are required to publish their strategies to reduce noise and minimise the number of people affected by noise, every five years. These Noise Action Plans are the primary vehicle for setting and monitoring noise controls at airports which the Government does not regulate under Section 78 of the Civil Aviation Act 1982 for noise purposes (referred to as 'Non-designated' Airports).

Although there is a clear consultation process which has to be followed by airports when drawing up these plans, some respondents to the Aviation Policy Framework scoping document expressed dissatisfaction with airports' noise management as they exist currently and were distrustful of the fact that airports effectively monitored themselves.

The Government is proposing a new role for the Civil Aviation Authority (CAA), in the form of greater involvement in the ongoing noise management at airports. This is expected to have the effect of improved accountability from airports, ensure greater transparency and generate greater trust with local communities.

Civil Aviation Authority

Currently the CAA's role on noise is primarily focused on noise modelling and mapping for the airports that the Government regulates for noise purposes under Section 78 of the Civil Aviation Act 1982 (referred to as 'Designated' Airports – currently Heathrow, Gatwick and Stansted), providing technical expertise to the DfT to inform policy development and work in international forums and assessing the noise impacts of airspace change proposals, as part of its regulatory airspace functions. Subject to Parliament granting the powers, the CAA will soon have new powers to produce guidance and advice with a view to reducing, controlling or mitigating the adverse environmental effects of civil aviation in the United Kingdom.

In order to improve transparency and independent oversight of airports' noise management, the Government considers that there could be value in giving the CAA a more formal role in this process. We envisage that this role could include:

- Liaising with Airport Consultative Committees to share good practice and advising ministers on the extent to which the airport has complied with best practice.
- publishing or arranging for airports to publish noise data and validating such data using the CAA's proposed new environmental information, guidance and advice powers;
- Monitoring implementation of commitments made under noise action plans;
- assessing an airport's implementation of noise penalty schemes

The extent to which the CAA gets involved with airports' noise management will be subject to a separate consultation, which will determine the additional cost of this work. It is expected that the CAA will take a proportionate approach based on the level of problems identified with an airport's management of noise. Therefore, it is not expected that the CAA will have a role to play at all airports required to produce Noise Action Plans.

If the role is formalised in legislation, the CAA would pass the costs of this work to industry through its regulatory charging schemes. However, in the short term, it is expected that the Government will bear any additional costs to the CAA. In the absence of evidence that airports are not managing their noise effectively, it is not expected that the government will introduce legislation to give the CAA powers to charge industry for its work.

Better Airports package Proposal

On 1st December 2011, the European Commission launched the Better Airports Package proposal which includes a requirement for Member States to designate a competent authority and an appeal body independent of any organisation which could be affected by noise-related action. The Commission's proposal includes a legally binding procedure for competent authorities to assess the current and future noise situation at an airport. This implies a new role for national authorities.

Therefore the new role envisaged for the CAA could also fit within the role as the competent authority for assessing the noise situation and approving noise operating restrictions, as required under the proposed EU regulation.

The competent authority role in the proposed regulation would not specifically include all the actions listed above. Nevertheless, we consider that these would complement the work to produce an independent assessment of the noise situation at an airport.

Costs and Benefits

Costs

The exact amount of work involved is still to be determined but for the purpose of consultation we have identified the roles listed above.

Based on the CAA's experience with noise maps and noise action plans, fulfilling the first two roles above is likely to require up to approximately 0.5 full time equivalent employees (FTEs) of the CAA's time. The expected time involvement for the final 4 roles is more difficult to predict and depending on the exact role of the CAA could require up to two FTEs. In total the CAA estimate that costs will be approximately £240,000 per annum to fulfil all five functions. This is a very rough approximation as it is difficult to estimate exact resource costs associated with these additional roles. In addition, the number of airports that the CAA will get involved with is uncertain at this stage and dependent on the extent of noise problems at the different airports in the UK.

If the government introduces legislation such that the CAA can charge industry for its additional role then the industry may potentially pass on additional CAA charges to their customers in the form of higher fares. The extent of this is uncertain but expected to be relatively insignificant, given the estimated extent of the CAA's additional costs. To illustrate this, we have compared the number of journeys made through non designated airports per annum (i.e. published CAA data on passenger numbers in 2010 at UK airports excluding Heathrow, Gatwick and Stansted⁴) to the range of likely additional costs. The upper bound of the estimated costs that industry would pass on to passengers as a result of the additional charges by the CAA is expected to be approximately 0.25p per passenger per annum.

Benefits

Good relations between airports and their local communities depends on local people feeling that engagement processes are effective, that noise performance data is credible and accessible and that the airport is honest about its local impacts and willing to challenge its own performance. Whilst there is evidence of some good practice around local engagement, it is also evident from numbers of complaints and the numbers of people joining local campaign groups that this is not the case everywhere. The Government would like to see the noise

⁴ See Table 2 02, <http://www.caa.co.uk/default.aspx?catid=80&pagetype=88&sglid=3&fld=2010Annual>

management process marked by greater transparency, trust and local accountability. The role of an independent authority is expected to provide potential benefits to both local communities, through the availability of improved information on airport's noise reduction plans and ability to validate data used to monitor airports' performance and to airports, in the form of fewer complaints from local communities.

One In One Out

If CAA is given a formal function in legislation, this measure would be regulatory in nature and would place an impact on business. It is within the scope of One-In-One-Out, unless the function is one which is required to implement European legislation. However, the impacts are not a direct result of this decision. A further stage of consultation and an Impact Assessment would be required on the draft legislation. A subsequent decision would be needed before there were any impacts on business so it qualifies as Zero Net Cost.

Policy Option 1C & 1D Noise Thresholds

Overall policy objective on noise

The Noise Policy Statement for England (NPSE)⁵ contains a high-level vision of promoting good health and good quality of life through the effective management of noise in the context of Government policy on sustainable development. It is supported by three aims, including avoiding significant adverse impacts on health and quality of life and mitigating and minimising adverse impacts. Comparable principles apply for other parts of the UK.

The existing high level policy objective on aircraft noise, set out in the 2003 Air Transport White Paper, is an aim to limit and, where possible, reduce the number of people in the UK significantly affected by aircraft noise. We do not propose to change this.

If aviation is to be allowed to grow, it is important that its environmental impacts are measurable. A measurable objective on noise is therefore vital as evidence to support decisions on any future growth.

Under European law, all major airports in the UK are required to measure their noise impact in the form of noise contours every five years. In addition to this, daytime noise contour maps have been produced annually for many years for the three designated London airports. These maps show the number of residents exposed to average continuous daytime noise from aircraft of at least 57 decibels (dBA Leq).

The production of this data therefore makes it possible to examine trends in the number of people affected and the size of area affected over time.

Measurement of noise

The Government's policy to date has been to use 57 decibels (db) dBA Leq as the level of daytime noise marking the onset of significant community annoyance. In practice the policy has influenced the annual production of noise contours for the three designated airports and has also been used in planning decisions (e.g. the Heathrow T5 planning conditions which limit growth of the 57 decibel contour).

Since 2006, the European Environmental Noise Directive (END) has required airports to map noise exposure using the Lden metric. Unlike Leq which only measures noise in the 16 hour day period, Lden is a 24 hour measure which is a composite of day, evening and night noise levels with a 5dBA weighting given to evening noise (1900-2300) and 10dBA to night noise (2300-0700). All airports covered by the END (which include the three designated UK airports) have to produce noise exposure results down to 55 decibels Lden.

International research carried out in recent years by the World Health Organisation, European Environment Agency (EEA) and others seems to reinforce the finding that the level of aircraft noise exposure at which a certain level of annoyance occurs has decreased in the last 20-30 years. For example, the EEA published a good practice guide in 2010 to help practitioners understand and fulfil the requirements of the Environmental Noise Directive⁶. The report describes the results of research that supports the view that people are becoming more sensitive to aircraft noise (i.e. the same level of adverse reaction is now occurring at a lower noise exposure). In particular the report concludes that the level of noise at which a certain percentage of people are highly annoyed is lower in post-1990 studies in comparison to studies

⁵ The Noise Policy Statement for England was published in March 2010 by the Department for Environment Food and Rural Affairs. <http://archive.defra.gov.uk/environment/quality/noise/policy/documents/noise-policy.pdf>

⁶ *Good practice guide on noise exposure and potential health effects*, EEA, November 2010, <http://www.eea.europa.eu/publications/good-practice-guide-on-noise>

done pre-1990. However, the reasons for this change remain inconclusive and there are still large uncertainties around the precise change in relationship between annoyance and the exposure to aircraft noise. Noise is defined as unwanted sound and unwanted is by definition subjective. As such, people's response will vary.

The balance of probability is that people are now relatively more sensitive to aircraft noise than in the past. However, there is insufficient evidence to indicate a clear threshold noise level at which it can be said with any certainty that there is an 'onset of significant community annoyance'.

Proposed policy change

Many stakeholders in their response to the scoping document argued that people were now more sensitive to aircraft noise and that a 57 decibels threshold was too high. It is acknowledged that research in recent years suggests that the balance of probability is that people are now relatively more sensitive to aircraft noise than in the past, though there is insufficient evidence to indicate a clear threshold noise level at which it can be said with any certainty that there is an 'onset of significant community annoyance'. We recognise that people living outside the 57dB $L_{Aeq,16h}$ contour are also affected by aircraft noise and that for some, the annoyance may be significant. Indeed many complaints about aircraft noise come from outside the 57 dB $L_{Aeq,16h}$ contour, reflecting the fact that frequency of movements is a source of annoyance for some people living in areas exposed to less than 57 decibels average noise across the whole day.

As there is no conclusive evidence on which to base a new level, for the present time we are minded to retain the 57 dB $L_{Aeq,16h}$ contour as the average level of daytime aircraft noise marking the approximate onset of significant community annoyance. However, to facilitate improved monitoring we propose to ensure that the contour maps produced annually to show noise exposure around the designated airports are drawn in future to a lower level using either a 55 dB(A) L_{den} contour, which aligns with the level to which airports are required to map noise exposure under the END, or a 54dB $L_{Aeq,16h}$ contour, which is the next logical step down from the current 57dB $L_{Aeq,16h}$ contour of the above options:

Policy Option 1C:

to use a 55 dB(A) L_{den} contour, which aligns with the level to which airports are required to map noise exposure under the EU Environmental Noise Directive or

Policy Option 1D:

To use 54dB $L_{Aeq,16h}$ (which is the next logical step down from the current 57dB $L_{Aeq,16h}$ contour) with an 8 hour night L_{eq}

Since these options are mutually exclusive for the purposes of calculating the Total Net Present Value, only the NPV of option 1C (rather than option 1D) has been included.

Policy Option 1C:

Costs and benefits

Costs

The CAA expect that the costs of producing 55 dBA Lden noise contours on a regular basis is likely to be approximately £40-50k per annum in addition to costs experienced in the Do Nothing scenario for all three designated airports with a best estimate of £45k per annum. This is because producing Lden contours entail more work as three separate time periods have to be calculated and then summed together with appropriate weightings. The current 57 dBA Leq measurements cost £40,000 per annum and are funded by the DfT. The additional costs from producing the 55 dBA Lden contour will also be borne by the public sector.

Benefits

Measuring noise at the lower level will acknowledge that some people who currently live outside the 57dB Leq contour could also be significantly annoyed by aircraft noise. 55dBA Lden is favoured by some as it is a 24 hour measure. It could mean that future airport policy is considered to be more credible with respect to noise and based on sound evidence.

It is useful to have noise contours at the lower lever to monitor the number of people potentially significantly affected by aircraft noise, and to measure reductions in the number of people who are significantly affected by noise.

One In One Out

This is not deemed regulatory in nature and the costs are expected to fall on government not business. It is not within the scope of One-In-One-Out.

Policy Option 1D:

Costs and benefits

Costs

Plotting a lower contour in addition to the normal 57-72dBA is essentially zero cost in terms of the process. The additional costs of producing 54dB $L_{Aeq,16h}$ noise contours are zero. If $L_{Aeq,8h}$ night contours are also produced then the costs are £10-15k per annum with a best estimate of £12,5k per annum assumed.

Benefits

The benefits from measuring noise at 54 dbA Leq with an 8 hour night Leq are similar to those from 55 Lden in policy option 1C.

One In One Out

This is not deemed regulatory in nature and the costs are expected to fall on government not business. It is not within the scope of One-In-One-Out.

Annex: Specific Impact Tests

Statutory equality duties

The proposals are at a UK national level and as such aren't focussed disproportionately around any particular equality strands. Should we consider particular local options around these proposals then an equality screening exercise would have to be carried out then.

Competition

The amendments will not have a negative effect on competition. The proposal to allow fifth freedoms at Gatwick, Stansted and Luton and to liberalise regional airports could increase competition.

Small firms

In March 2011, the Government announced a moratorium on new regulations affecting micro businesses - those with less than 10 employees - and start ups from April 2011 until 2014. Within the business sector major airlines and major airports, with relatively large numbers of employees, are in scope of the proposals set out in this IA. Micro businesses have been assessed as being out of scope of these proposals

Wider environmental issues

The proposal to reduce noise thresholds could impact positively on noise pollution.

Social impacts

Health and well-being

The proposal to reduce noise thresholds could impact positively on health and well-being.

Human rights

It is not anticipated that our proposals will have any human rights impacts.

Justice system

It is not anticipated that our proposals will have any implications for the justice system.

Rural proofing

We do not believe that any of the proposals will have a different impact on people in rural areas because of their particular circumstances or needs.

Sustainable development

Sustainable development entails the current generation satisfying its basic needs and enjoying an improving quality of life without compromising the position of future generations. The proposals do not affect the resources available to future generations, and are therefore compatible with sustainable development.
