

Environmental Noise Team
Area 2a Nobel House
17 Smith Square
London SW1P 3JR



Telephone:

Web: www.defra.gov.uk

Date: 4 Sep 2008

Dear Sir or Madam

Re: Consultation on the guidance for airport operators to produce action plans under the terms of the Environmental Noise Regulations 2006

1. I am writing to invite views on the next stage in the process to meet the legal requirements of the Environmental Noise Directive (END) 2002/49/EC which was transposed into English law by the Environmental Noise (England) Regulations 2006.

Following the production of strategic noise maps the END requires Member States to produce Action Plans based on the results of this noise mapping and according to the Regulations, the relevant Airport Operator is designated as the Competent Authority for producing an action plan for their airport. I am specifically requesting feedback on the guidance for airport operators on producing these action plans

2. The following documents may be found on Defra's website:
<http://www.defra.gov.uk/corporate/consult/aviation-actionplans/index.htm>

- **Consultation Letter**
- **Action Planning Guidance for airport operators**
- **Aviation Action Planning – Q&A**
- **List of Consultees**

3. We welcome your views and comments on the proposals. If you wish to obtain a copy of this consultation. Please contact **Environmental Noise Team, Area 2a, Nobel House, 17 Smith Square, London SW1P 3JR.**

List of consultees

- Advantage West Midlands
- Advisory Committee on Business and Environment
- AEA Technology Rail
- Age Concern
- Agricultural Engineers Association
- Airbus UK
- Airport Operators Association
- Association of London Government
- Association of Noise Consultants
- Association of Train Operating Companies
- Association of Transport Co-ordinating Officers
- Automobile Association
- Aviation Environment Federation
- BAA plc
- Bicycle Association
- Biggin Hill Aerodrome
- Birmingham International
- Blackpool Airport
- Board of Airline Representatives in the UK
- Bournemouth (Hurn) Airport
- Bristol (Filton) Airport
- British Air Transport Association
- British Compressed Air Society
- British Entertainment and Discotheque Association
- British Heart Foundation
- British Marine Industries Association
- British Medical Association
- British Rubber Manufacturer's Association
- British Standards Institute
- British Tourist Authority
- Building Research Establishment
- Cambridge Airport
- Confederation of British Industry
- Centro (West Midlands PTE)
- Chartered Institute of Environmental Health
- Civil Aviation Authority
- Commission for Racial Equality
- Commissioner for Local Administration in England
- Confederation of Passenger Transport
- Construction Industry Council
- Council for Environmental Education
- Council for National Parks

- Council for the Protection of Rural England
- Councillor John Crane
- Country Landowners Association
- Countryside Agency
- Coventry Airport
- Cranfield University
- CSS (formally known as the County Surveyors' Society)
- Cyclists Public Affairs Group
- Department for Culture, Media and Sport
- Department for Education and Skills
- Department for Trade and Industry
- Department for Transport, Local Government and the Regions
- Department of Environment for Northern Ireland
- Department of Health
- Disability Rights Commission
- Disabled Persons Transport Advisory Committee
- East Midlands Development Agency
- East Midlands International Airport
- East of England Development Agency
- English Heritage
- English Historic Towns Forum
- English Nature
- English Tourism Council
- Environment Agency
- Environmental Industries
- Environmental Noise Barriers Association
- Environmental Protection UK
- Environmental Services Association
- Equal Opportunities Commission
- Eurostar Ltd
- EWS
- Federation of Small Businesses
- Foreign and Commonwealth Office
- Forum for the Future
- Freight Transport Association
- Friends of the Earth
- Gambica Association Ltd
- Gatwick Airport
- Geoff Leventhall
- Gloucestershire Airport
- Government Office for the East Midlands
- Government Office for the East of England
- Government Office for London
- Government Office for the North East

- Government Office for the North West
- Government Office for the South East
- Government Office for the South West
- Government Office for the West Midlands
- Government Office for Yorkshire and the Humber
- Greater London Authority
- Greater Manchester PTE
- Green Alliance
- Greenpeace
- HACAN Clear Skies
- Health & Safety Commission
- Health and Safety Executive
- Hearing Concern
- Hearing Research Trust
- Hearing Services Centre
- Heathrow Airport
- Help the Aged
- Highways Agency
- HM Treasury
- Home Office
- Imported Tyre Manufacturer's Association
- Inner Cities Religious Council
- Institute for Environmental Health
- Institute for European Environmental Policy
- Institute of Acoustics
- Institute of Directors
- Institute of Logistics and Transport
- Institute of Road Transport Engineers
- Institute of Sound and Vibration Research
- Institution of Civil Engineers
- Joint Airports Committee of Local Authorities
- Joint Committee on Mobility for Disabled People
- LACORS
- Leeds/Bradford Airport
- Liverpool Airport
- Local Government Association
- London Development Agency
- London Transport Buses
- Low Frequency Noise Sufferers Association
- Low Frequency Noise Sufferers Association
- Low Frequency Noise Sufferers Association
- Luton Airport
- Manchester Airport plc
- Mediation UK
- Merseyside PTE
- Ministry of Defence

- Motorcycle Industry Association
- National Assembly for Wales
- National Association of Local Councils
- National Council for Voluntary Organisations
- National Farmers Union
- National Power
- National Trust
- NATS
- Natural Environment Research Council
- Natural Gas Vehicle Association
- Newcastle International Airport
- Noise Abatement Society
- Noise Network
- Northwest Development Agency
- Norwich Airport Ltd
- NPL
- Office of the Rail Regulator
- One NorthEast
- Passenger Transport Executive Group
- Pedestrians Association
- Powergen
- Private Wagon Federation
- Quarry Products Association
- Rail Passengers Council
- Railtrack
- Railway Forum
- Railway Industry Association
- Ramblers Association
- Refined Bitumen Association
- Regional Public Health Directors
- Regional Public Health Directors
- Regional Public Health Directors
- Regional Public Health Directors
- Regional Public Health Directors
- Regional Public Health Directors
- Regional Public Health Directors
- Road Haulage Association
- Rolls Royce
- Royal Aeronautical Society
- Royal Automobile Club
- Royal Commission on Environmental Pollution
- Royal National Institute for Deaf People
- Royal National Institute for the Blind
- Royal Society for the Protection of Birds
- Royal Town Planning Institute
- Safeway Stores plc
- Scottish Executive
- Scottish Power

- Scottish and Southern Energy
- SEEDA
- Shoreham Joint Municipal Airport
- Society of Local Council Clerks
- Society of British Aerospace Companies
- Society of Motor Manufacturers and Traders
- South Bank University
- South West of England Regional Development Agency
- Stanstead Airport
- Strategic Rail Authority
- (Local Government) Technical Advisors Group
- Teeside International Airport
- The Electricity Association
- Tinnitus Association
- Town and Country Planning Association
- Trade Union Congress
- Transport 2000
- TRL (Transport Research Laboratory)
- UK Environmental Law Association
- UK Noise Association
- University College London Medical School
- University of Salford
- Urban Forum
- Wildlife Trust
- Women's Environmental Network
- Women's National Commission
- Yorkshire Forward

www.defra.gov.uk

Consultation on the guidance for Airport Operators to produce action plans under the terms of the Environmental Noise Regulations 2006

September 2008

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<http://www.defra.gov.uk/corporate/consult/aviation-actionplans/index.htm>

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Responses

4. Please send responses to either:

Environmental Noise Team
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Area 2a
Nobel House
17 Smith Square
London
SW1P 3JR

Or e-mail: noise@defra.gsi.gov.uk

5. Responses should be received by **12:00 noon on Friday 28 November 2008**
6. In line with Defra's policy of openness, at the end of the consultation period copies of the responses we receive will be made publicly available through the Defra Information Resource Centre, Lower Ground Floor, Ergon House, 17 Smith Square, London SW1P 3JR. The information they contain will also be published in a summary of responses.
7. If you do not consent to this, you must clearly request that your response be treated confidentially. Any confidentiality disclaimer generated by your IT system in e-mail responses will not be treated as such a request. You should also be aware that there may be circumstances in which Defra will be required to communicate information to third parties on request, in order to comply with its obligations under the Freedom of Information Act 2000 and the Environmental Information Regulations.
8. The library will supply copies of consultation responses to personal callers or in response to telephone or e-mail requests (tel: 020 7238 6575, email: defra.library@defra.gsi.gov.uk Wherever possible, personal callers should give the library at least 24 hour notice of their requirements. An administrative charge will be made to cover photocopying and postage costs.
9. If you have any comments or complaints about the consultation process, as opposed to the content in the consultation paper, please address them to Marjorie Addo Defra's Consultation Co-ordinator, Area 7c Nobel House, 17 Smith Square, London SW1P 3JR, or email consultation.coordinator@defra.gsi.gov.uk.
10. Thank you for your help in this matter. If you have any queries please contact us as above.

Yours faithfully

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Contents

About this consultation exercise	2
Summary of consultation questions	3

Annexes

Annex A – Action Planning Guidance for airport operators	5
Annex B – Aviation Guidance Q&A	28

About this consultation exercise

Responses

Defra would welcome responses to this consultation paper by noon on Friday 28 November 2008. It would be helpful if in your response you could make clear the nature of your organisation (if any) where this is not readily apparent, and the capacity in which you are responding (e.g an officer representing an organisation or an individual). It will also assist us in taking account of the points you raise if you make clear the section or paragraph to which they relate.

Any responses received may be made public, unless you have specifically asked for them to remain confidential.

Responses and general enquiries about this paper should be sent to :

Environmental Noise Team
Department of Environment, Food and Rural Affairs
Area 2a
Nobel House
17 Smith Square
London, SW1P 3JR

Email : noise@defra.gsi.gov.uk

Summary of consultation questions

The aim of the Environmental Noise Directive (END) 2002/49/EC and the related legislation implemented through the Environmental Noise (England) Regulations 2006 and the Environmental Noise (England) (Amendment) Regulations 2008, is to avoid, prevent or reduce on a prioritised basis the harmful effects, including annoyance, due to exposure to environmental noise. The Regulations require a noise mapping and action planning process to be taken forward on a five-year rolling programme. The first round of mapping was submitted to the Commission by the end of 2007 and the first action plans by 18 January 2009.

The Regulations requires the Secretary of State to publish guidance setting out limit values or other criteria for the identification of priorities for action plans. Similar exercises are being undertaken for major roads, rail and agglomerations and it is the requirement of the Secretary of State to produce these documents. However, according to the Regulations, the relevant Airport Operator is the Competent Authority for producing an action plan for their airport so the purpose of this guidance, to which we are specifically requesting feedback is to facilitate delivery of these documents. You will however need to focus on the following main questions

1. Do you agree with the approach being adopted in this document ?
Especially, bearing in mind the requirement of the END that we should address priorities based on the results of the noise mapping.
2. Do you agree with the issues outlined in the guidance that Airport Operators should take into account when preparing their action plans?
3. Do you agree with the process set out in the guidance for the development and adoption of the action plans?
4. Is there any additional guidance that should be included in this document that would assist with the process?

ANNEXES

ANNEX A Guidance for Airport Operators

ANNEX B Aviation Guidance Q&A

The Environmental Noise (England) Regulations 2006 (as amended)
Action Planning - Airports
Guidance for Airport Operators

Section 1

Introduction

- 1.01 This guidance is designed for operators of civil airports in England who are required to produce Action Plans under the terms of the Environmental Noise (England) Regulations 2006¹ (the “Regulations”).
- 1.02 In particular, this guidance covers the requirements to develop Action Plans designed to manage noise issues and effects arising from aircraft departing from and arriving at their airport, including noise reduction if necessary. It also covers the reporting of the Action Plan. Action Plans have to be developed in the context of the existing regulatory background and must include a description and assessment of the existing framework of control relating to noise from the airport (see 2.19 ‘The legal context’).
- 1.03 The drawing up of Action Plans for airports supports the Government’s aim – as set out in The Future of Air Transport White Paper (2003) (ATWP)– to limit and where possible reduce the number of people in the UK significantly affected by aircraft noise. In line with these commitments, the Government has strengthened and clarified powers to control aircraft noise and emissions. In particular airport operators have been given statutory powers to introduce noise control schemes and fine aircraft operators for any of their departures that breach noise controls.
- 1.04 The strategic noise maps produced under the terms of the Regulations provide a snap shot of the noise impact that is arising from the relevant airport. The action planning process is designed to consider the results of the mapping and to identify whether there are any particular or additional measures that might be taken to meet the Government’s aim described in 1.03 above.
- 1.05 A glossary of the acoustic and technical terms used is set out in Appendix A

Status of this Guidance

- 1.06 This guidance follows previous guidance on noise mapping² and is issued by the Department for the Environment, Food and Rural Affairs (Defra)

¹ S.I. 2006/2238. This was amended by S.I. 2008/375

under regulations 14(1) and 30 of the Regulations. Accordingly, airport operators must have regard to it when drawing up Action Plans. This guidance only applies to airport operators in England who were required to produce noise maps under the Regulations.³

Why prepare an Action Plan?

- 1.07 Action Plans are a legal requirement under Directive 2002/49/EC relating to the Assessment and Management of Environmental Noise. This Directive is commonly referred to as the Environmental Noise Directive or END⁴. The requirements of the END are transposed in the Regulations.
- 1.08 The END requires Member States to produce strategic noise maps for the main sources of environmental noise, i.e. major roads, major railways, major airports and agglomerations with a population of more than 250,000 persons and a certain population density in 2007 and those with a population of more than 100,000 persons and a certain population density in 2012 and every five years thereafter⁵.
- 1.09 Action Plans must be drawn up by the airport operators that were required to produce strategic noise maps under the Regulations. Action Plans must be produced based on the results of the noise mapping. For the purposes of the Regulations, these operators are the competent authorities in relation to airport Action Plans. These operators must draw up an Action Plan in 2008, 2013 and every five years thereafter, based on the results of the noise mapping. The Regulations also require the Action Plans to be reviewed from time to time and revised if necessary and whenever a major development⁶ occurs affecting the existing noise situation.

Timetable

- 1.10 The mapping for those airports affected by the Regulations was completed in 2007.⁷ Based on this guidance, airport operators must prepare action plans and then submit them to the relevant Secretary of State for adoption. Summaries of the adopted plans will be forward by Defra to the European Commission as required by the END.

Structure of this Guidance

- 1.11 Section 2 contains information about the requirements of Action Plans. Section 3 provides guidance on issues to consider when determining how

² Airport Technical Guidance: The Environmental Noise (England) Regulations 2006, (Defra 2006), <http://www.defra.gov.uk/environment/noise/pdf/airport-techguidance06.pdf>

³ See Appendix B

⁴ For further information see

http://eur-lex.europa.eu/pri/en/oj/dat/2002/l_189/l_18920020718en00120025.pdf

⁵ In the Regulations, the population density used is equal to or greater than 500 people per km².

⁶ The term 'major development' is not defined in the Regulations or the END but it would include, for example, the use of a new runway.

⁷ See Appendix C

to fulfil the action planning requirements of the Regulations. Section 4 gives guidance on how to meet the requirements for public participation in the action planning process and provides information on the adoption and publication process. The text is supported by text boxes that summarise the key parts of the Regulations and Directive. Appendix A provides a short glossary of acoustic terms. Appendix B provides the definition of those airports that are required to produce noise maps and Appendix C lists the airports that produced noise maps in the first round of noise mapping.

Section 2

General requirements for Action Plans

- 2.01 The competent authority for drawing up Action Plans for:
- major airports; and
 - other airports that were mapped;
- is the relevant airport operator.^{8, 9}
- 2.02 The Action Plan must be drawn up for places near the airport¹⁰, which means those places affected by noise from the airport operations as shown by the results of the noise mapping¹¹.
- 2.03 The Action Plan for an airport must meet the general requirements in regulation 15 which are summarised below:
- 2.04 The Action Plan must meet the objectives of Article 1(c) of the END¹². That article states that Member States should adopt Action Plans, based upon the noise-mapping results, with a view to preventing and reducing environmental noise where necessary and particularly where exposure levels can induce harmful effects on human health and to preserving environmental noise quality where it is good.
- 2.05 The Action Plan must be designed to manage noise issues and effects, including noise reduction if necessary¹³.
- 2.06 The Action Plan must aim to protect quiet areas in first round agglomerations against an increase in noise^{14,15}. For the current round of action planning, this requirement will affect those airports whose aircraft noise affects first round agglomerations¹⁶.
- 2.07 In line with the Air Transport White Paper commitments of limiting, and where possible reducing the number of people in the UK significantly affected by aircraft noise, government policy has been to concentrate departing aircraft along the least possible number of departure routes

⁸ Regulation 18

⁹ See Appendices B & C for the definition of airports to be mapped and a schedule of those for which maps were produced in the first round of mapping

¹⁰ Regulation 19 (1) (a)

¹¹ Effectively those places within the published contours, i.e. with noise exposures of 55 dB(A), L_{den} or more and 50 dB(A), L_{night} or more.

¹² Regulation 15 (1) (a)

¹³ Regulation 15(1) (b)

¹⁴ Regulation 15 (1) (c)

¹⁵ The detailed identification of quiet areas is to form part of the duties of the competent authority responsible for preparing Action Plans for first round agglomerations.

¹⁶ Aircraft noise is regarded as affecting a first round agglomerations if air traffic noise from the airport causes either an L_{den} value of 55 dB(A) or greater or an L_{night} value of 50 dB(A) or greater anywhere within a first round agglomeration.

- consistent with airspace management considerations and the overriding need for safety. This has resulted in the establishment of Noise Preferential Routes (NPRs). These routes are designed to minimise noise annoyance by concentrating aircraft departures along routes avoiding the more densely populated areas as far as practicable.¹⁷
- 2.08 However, it is recognised that there will be occasions where this policy may conflict with measures to protect quiet areas from the effects of noise. It has been long established that where it is possible to avoid over-flights of National Parks and Areas of Outstanding Natural Beauty below 7000 feet, it makes sense to do so, provided it does not add to the environmental burdens on more densely populated areas.
- 2.09 Given that one of the obligations regarding Action Plans for agglomerations is the aim to protect currently quiet areas in first round agglomerations, an airport operator will need to consider whether any element of the proposed Action Plan might conflict with the quiet area objectives within the agglomeration Action Plan¹⁸. In order to avoid any such conflict arising, airport operators whose operations affect a first round agglomeration should liaise with the competent authority for that agglomeration to agree the best way forward. If there are any unresolved conflicts between the airport action plan and the agglomeration action plan, these should be reported in the Action Plan.¹⁹
- 2.10 Where appropriate, airport operators are advised to investigate opportunities for protecting quiet areas in general using ameliorative measures, such as more sophisticated flight path management. However, as explained paragraph 2.08, care needs to be taken to avoid adding environmental burdens on more densely populated areas. Government airspace policy guidance places a high value on the legacy of planning decisions and the location of noise sensitive development. This includes the importance of long-term stability of aircraft route structures in the vicinity of airports, since people need to know where significant aircraft noise will be experienced.
- 2.11 The Action Plan must address priorities which must be identified by having regard to any guidance published pursuant to regulation 30 of the Regulations, see Section 3.
- 2.12 The Action Plan must apply in particular to the most important areas as established by strategic noise maps²⁰. See Section 3.
- 2.13 The Action Plan must meet the requirements of Schedule 4 to the Regulations²¹.

¹⁷ Any proposed alteration to flight paths is the responsibility of National Air Traffic Services, in conjunction with the relevant airport, where appropriate.

¹⁸ The protection of quiet areas in an agglomeration should not automatically take precedence over protection of areas where environmental noise quality is good outside an agglomeration.

¹⁹ Any unresolved conflict will also be reported in the action plan for the relevant agglomeration.

²⁰ Regulation 15 (1) (e)

Box 1
General requirements for Airport Action Planning

Action Plans must

- Meet the objectives of Article 1(c) of the Directive;
- Be designed to manage noise issues and effects, including noise reduction if necessary;
- Aim to preserve quiet areas in agglomerations;
- Address priorities which must be identified having regard to guidance
- Apply to the most important areas as established by strategic noise maps
- Meet the requirements in Schedule 4 of the Regulations

2.14 Schedule 4 of the Regulations requires that Action Plans must:

- meet the minimum requirements of Annex V of the END²²; and
- contain a summary covering all the important aspects referred to in Annex V of the END, not exceeding ten pages in length²³.

The reference to 'ten pages in length' comes from a requirement of the END²⁴.

²¹ Regulation 15 (1) (f)

²² Schedule 4 1 (1) (a)

²³ Schedule 4.1 (1) (b)

²⁴ Directive 2002/49/EC, Annex VI, paragraphs 1.8 and 2.8

Annex V of END

- 2.15 Annex V of the END sets out the minimum requirements of Action Plans. For airports these minimum requirements are shown in Box 2.

<p style="text-align: center;">Box 2</p> <p style="text-align: center;">Annex V from the END as it applies to airports</p> <p>An Action Plan must at least include the following elements:</p> <ul style="list-style-type: none">• A description of the airport and any other noise sources taken into account;• The authority responsible;• The legal context;• Any limit values in place;• A summary of the results of the noise mapping;• An evaluation of the estimated number of people exposed to noise, identification of problems and situations that need to be improved;• A record of the public consultations organised in accordance with Article 8(7);• Any noise reduction measures already in force and any projects in preparation;• Actions which the airport operator intends to take in the next five years, including measures to preserve quiet areas;• Long term strategy;• Financial information (if available): budgets, cost-effectiveness assessment, cost-benefit assessment;• Provisions envisaged for evaluating the implementation and the results of the Action Plan <p>The Action Plan should contain estimates in terms of the reduction of the number of people affected (annoyed, sleep disturbed, or other)</p>
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- 2.16 In the following paragraphs, guidance is given on how the various elements of Annex V might be met:

A description of the airport and any other noise sources taken into account

- 2.17 This information will have already been gathered as part of the data that had to be submitted to the Secretary of State as part of the noise mapping. No other noise sources (such as 'ground noise' from airport activities) will have been taken into account, only the noise from aircraft departing and arriving at the airport.

The authority responsible

- 2.18 This is the name of the airport operator, who is defined in the Regulations as the competent authority for preparing the airport Action Plan (see paragraph 2.01 above).

The legal context

- 2.19 This requires reference to the Regulations which place the responsibility of preparing the Action Plan onto the airport operator. Thus reference to Regulation 18 should be made. Action Plans must include a description and assessment of the existing national and local framework of control directly or indirectly relating to the management of noise from the airport e.g. current government policies, noise preferential routes, Airport Master Plans, any local planning agreements and restrictions, any local voluntary agreements etc.

Any limit values in place

- 2.20 Reference should be made to any planning conditions or other agreements that set a constraint on the airport's operations that could affect the level of noise generated. These might include any contour area limits, noise limits on departure, or aircraft movement limits etc. These limit values may have already been described and reported as part of the noise mapping process

A summary of the results of the noise mapping

- 2.21 These results should include for the various noise indicators for which mapping was carried out, the area enclosed by the various contour bands. The area information will have already been determined through the noise mapping work.
- 2.22 Airport operators should determine the number of noise sensitive premises that lie within the various contour bands. Housing, hospitals and schools should generally be regarded as noise sensitive premises. Airport operators may chose to include other premises or specific types of land use within this definition depending on local circumstances and priorities. Where aircraft noise affects an agglomeration then liaison with the competent authority for the agglomeration should form part of determining priorities.
- 2.23 The aim of this requirement is to provide a description of the current noise impact of the airport on its surroundings.

An evaluation of the estimated number of people exposed to noise, identification of problems and situations that need to be improved

- 2.24 Defra are generating population exposure information and this data will be provided to the various airport operators.
- 2.25 Guidance on the identification of problems and situations that need to be improved is given in Section 3.

A record of the public consultations organised in accordance with Article 8(7)

- 2.26 Part of the action planning process requires formal public consultation to occur regarding the proposed Action Plan²⁵. More guidance is provided in Section 4.

Any noise reduction measures already in force and any projects in preparation

- 2.27 Airport operators will have existing measures in place to mitigate noise impacts. As part of the noise mapping process, information about such measures had to be provided to the Secretary of State. This requirement can be met by reviewing the previously prepared information about noise control measures and updating it as appropriate.

Actions which the airport operator intends to take in the next five years, including measures to preserve quiet areas

- 2.28 This element will comprise of a description of the outcome of the deliberations as described in Section 3. The issue of quiet areas is confined to those airports whose operations affect an agglomeration, as described in paragraph 2.06 above.

Long term strategy

- 2.29 Airport operators should describe the likely development of their airport in the future. It is expected that reference would be made here to the provisions of the Air Transport White Paper²⁶ and any Master Plan developed by the airport. Reference should be made to how the consequential noise impact would be managed.

Financial information (if available): budgets, cost-effectiveness assessment, cost-benefit assessment

- 2.30 Any new noise control measure that is considered for inclusion as part of the Action Plan must take into account the cost of implementation and the likely benefit expected to be accrued. (See also Section 3)

Provisions envisaged for evaluating the implementation and the results of the Action Plan

- 2.31 The Action Plan must show how the outcome expected from any measure that is to be implemented will be monitored. Airport operators should consider providing an update, locally, on a periodic basis that takes any changes in local circumstances into account.

The Action Plan should contain estimates in terms of the reduction of the number of people affected (annoyed, sleep disturbed, or other)

²⁵ Regulation 20

²⁶ The Future of Air Transport, Department for Transport, December 2003.

- 2.32 The Action Plan must contain an indication of the expected outcome of any proposed measures, for example, in terms of the reduction in the number of people affected, etc.

Regulation 21 of the Regulations

- 2.33 For the purposes of Regulation 21 of the Regulations, an Airport Operator is a Public Authority.

Section 3

Guidance on the determination of actions to be implemented

- 3.01 Airport Operators will primarily have two pieces of information available to them for action planning. These are:
- The current noise impact of their operations as shown by the results of the noise mapping²⁷; and
 - The current noise control measures they have in place.
- 3.02 The Action Plan process requires consideration to be given regarding the following:
- Is the current noise impact acceptable²⁸?
 - If the answer is yes, then it can be assumed that the current noise control measures are adequate.
 - If the answer is no, then further action is required and this action will be proposed as part of the Action Plan under the terms of the Regulations.

Effects of Noise

- 3.03 There are many different effects of noise, and individuals experience each of them to different degrees. It is known that noise can disturb human activity, by causing distraction or by physically interfering with it. These effects can include;
- General detection/distraction;
 - speech interference;
 - disruption of work/mental activity;
 - sleep disturbance.

Any of these can lead to annoyance and possibly more overt reactions, including complaints.

- 3.04 In addition, there are physiological effects that can occur including stress and other health effects²⁹. The nature of these effects is much less certain, although it is known that noise can cause a variety of biological reflexes and responses referred to as stress reactions. Whether, over a period of time, these reactions could lead to clinically recognisable disease is unclear. The possibility that severe annoyance might itself

²⁷ Airport operators will need to form a view on whether the results of the noise mapping are typical and should clearly state whether there were any unusual circumstances in the assessment year e.g. a runway closure.

²⁸ See subsequent guidance on determining acceptability (Paragraphs 3.06 et seq)

²⁹ Exposure to noise can cause direct auditory effects, i.e. noise induced hearing loss. Exposure to environmental noise tends to be at a level where the risk of this effect occurring is very small.

- induce stress cannot be ignored³⁰. The White Paper also acknowledged the public health impacts of aviation, noting the Government's intention to continue with research on the effects of noise on human health³¹.
- 3.05 Noise, is an inevitable consequence of a mature and vibrant society. People enjoy and benefit from air transport and this benefit manifests itself in terms of business, leisure, the movement of goods and employment. When managing the environmental noise that arises from aircraft, a balance needs to be struck.
- How to determine the acceptability or otherwise of the current noise impact***
- 3.06 The government intends that END Action Plans will assist the management of environmental noise in the context of sustainable development.
- 3.07 The END and the Regulations require that Action Plans apply in particular to the most important areas as established by the strategic noise maps.
- 3.08 When identifying possible actions, account should be taken of the principles that already exist in current legislation and guidance.
- 3.09 Within the aviation sector, the current key document is The Future of Air Transport, published in December 2003 and generally known as the Air Transport White Paper (ATWP). Some additional guidance is also contained in PPG 24 – Planning and Noise³², published in 1994.
- 3.10 The ATWP required airport operators with immediate effect to:
offer households subject to high levels of noise (69 dBA L_{eq} ³³ or more) assistance with the costs of relocating³⁴
- 3.11 Furthermore, with regard to mitigation when capacity enhancement proposals are brought forward, the ATWP expects airport operators to
offer to purchase those properties suffering from both a high level of noise (69 dBA L_{eq} ³¹ or more) and a large increase in noise (3 dBA L_{eq} or more)³⁵

Issues for Consideration

- 3.12 As part of the action planning process, Airport Operators should:

³⁰ The World Health Organisation provides a range of evidence on the effects of exposure to environmental noise

³¹ The World Health Organisation defines health as 'a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity'.

³² Planning Policy Guidance 24: Planning and Noise, available at:
<http://www.communities.gov.uk/planningandbuilding/planning/planningpolicyguidance/planningpolicystatements/planningpolicyguidance/229228/>

³³ This is the $L_{Aeq,16h}$ average summers day value

³⁴ ATWP Para 3.21

³⁵ ATWP Para 3.24

- As a first priority, consider what further measures should be taken in areas shown by the noise maps to have residential premises exposed to more than 69 dB $L_{Aeq,16h}$ ³⁶;
- More generally, examine the day, evening and night results produced from the noise mapping and consider whether there are any features of the noise impact that might be managed further;
- Ensure that there is an effective complaint handling system in place;
- Consider the information from any noise complaint data that is held and whether there are any measures that might be taken to manage further the aircraft noise impact;
- Respond to any feedback from Consultative Committees on particular issues that might be addressed;
- Consider whether other new noise abatement objectives might be developed with the aim of providing further management of the noise impact;
- Pro-actively engage with the land-use planning process, as mentioned in Statutory Instrument 2003/1742³⁷;
- Consider the opportunities for the protection of quiet areas both in agglomerations and in general in accordance with paragraphs 2.09 and 2.10 above;
- Consider any other measures that might reasonably contribute to meeting the objectives set out in paragraph 3.06 *et seq* above.

Some useful information may also be found in the CAA Guidance on the Application of the Airspace Change Process (CAP725)³⁸.

Wider Considerations

- 3.13 When considering any new noise management measure within the Action Plan, Airport Operators must assess the following:
- The benefit that would be achieved from the measure;
 - The costs of implementing the measure, both direct and indirect;
 - The impact of the measure on other environmental factors.
- 3.14 Any new noise management measure in the Action Plan must reflect the wider context of local and national sustainable development plans and policies, including any Master Plans.

³⁶ As the data is taken from the strategic noise maps, this is the $L_{Aeq,16h}$ annual average value

³⁷ Statutory Instrument 2003/1742 – The Aerodrome (Noise Restrictions) (Rules and Procedures) Regulations 2003

³⁸ CAP 725 – CAA Guidance on the Application of the Airspace Change Process, March 2007. Available from the CAA website at <http://www.caa.co.uk/cap725>

- 3.15 Any proposed new actions must take account as necessary of the requirements of Statutory Instrument 2003 No. 1742 – The Aerodromes (Noise Restrictions) (Rules and Procedures) Regulations 2003³⁹.

Section 4

Process including Public Consultation, Adoption and Publication

- 4.1 The Airport Operator will have acquired information in accordance with Section 3 and reached a view on whether or not the current noise impact is considered acceptable and whether or not current noise control measures are considered adequate. In coming to this view the Airport Operator will have considered the noise maps, the contents of this guidance, the ATWP and any subsequent relevant statements of government policy, and, if applicable, the Airport's Master Plan.
- 4.2 The Airport Operator should assemble this information and any initial proposals for a way forward into a Draft Noise Action Plan for wider consultation. This document must include prominently displayed wording identifying it as a draft that is subject to adoption by the Secretary of State⁴⁰.

Consulting the public

- 4.3 The Regulations require the Airport Operator to consult the public when preparing and revising Action Plans⁴¹:

Box 3
Action Plans – Public Participation

In preparing and revising Action Plans Airport Operators must ensure that -

- the public is consulted about proposals for Action Plans;
- the public is given early and effective opportunities to participate in the preparation and review of the Action Plans;
- the results of the public participation are taken into account;
- the public is informed of the decisions taken;
- reasonable time frames are provided allowing sufficient time for each stage of public participation.

- 4.4 Where a Consultative Committee exists, Airport Operators should engage with it in the development of the Draft Noise Action Plan. If no such committee exists, the Airport Operator should make arrangements to liaise with representatives involved with the airport, including airline operators,

³⁹ Statutory Instrument 2003/1742 – The Aerodrome (Noise Restrictions) (Rules and Procedures) Regulations 2003

⁴⁰ Regulation 29 (1)

⁴¹ Regulation 20

- local and regional authorities affected by the airport, any relevant local or national pressure groups and any relevant local citizen groups.
- 4.5 Once the Draft Noise Action Plan has been prepared, a formal public consultation exercise should be undertaken. Airport operators should allow a minimum of 12 weeks for the general public to have adequate time to participate in this process.
 - 4.6 If the airport is located in or near to an agglomeration and if the noise maps show that the agglomeration will be affected⁴² by noise from airport operations then, as part of the formal consultation exercise, the Airport Operator must submit the Draft Noise Action Plan to the competent authority⁴³ for developing Action Plans for each agglomeration so affected. Airport Operators should be aware that the competent authority for the agglomeration will also have a statutory duty to draw up a Noise Action Plan and both bodies should use all reasonable endeavours to co-operate and agree⁴⁴ the best way forward.
 - 4.7 The airport operator should examine and reflect upon the comments received as a result of the consultation process and complete the Draft Noise Action Plan including a description of the comments received during the consultation process and a reasoned justification for the response to the issues raised. As mentioned in paragraph 2.09, if there are any unresolved conflicts between the airport action plan and the relevant agglomeration action plan (where applicable), these should be reported in the Action Plan.
 - 4.8 The Draft Noise Action Plan must at least include the information required by Annex V of the Directive (see Box 2 and Section 2 of this guidance). In addition the Draft Noise Action Plan should include, in a separate Appendix, the airport specific information that was relied upon to develop the Action Plan. In addition, the airport operator shall prepare a summary of the Draft Noise Action Plan (not exceeding 10 pages in length).
 - 4.9 The Draft Noise Action Plan and accompanying summary needs to be sent to the Secretary of State for Transport and copied to the Secretary of State for Environment, Food and Rural Affairs. These documents must continue to include prominently displayed wording identifying them as a draft subject to formal adoption and approval by the Secretary of State for Environment, Food and Rural Affairs⁴⁵.
 - 4.10 The Secretary of State for Transport will form a view regarding whether or not the submitted Draft Noise Action Plan and summary meet the requirements of Regulation 15 and, therefore, whether or not the plan is

⁴² Aircraft noise is regarded as affecting a first round agglomerations if air traffic noise from the airport causes either an L_{den} value of 55 dB(A) or greater or an L_{night} value of 50 dB(A) or greater anywhere within a first round agglomeration.

⁴³ Details will be supplied at the appropriate time

⁴⁴ The Secretary of State has certain sanctions available under the Regulations.

⁴⁵ Regulation 29 (1)

appropriate for adoption. If the requirements are met the Secretary of State for Transport will recommend to the Secretary of State for Environment, Food and Rural Affairs that the Action Plan should be adopted.

- 4.11 If the Secretary of State for Transport considers that the requirements of Regulation 15 are not met, the airport operator will be required to make the necessary changes to the Draft Noise Action Plan and summary document so that the requirements of Regulation 15 are met in full. The Secretary of State for Environment, Food and Rural Affairs will be informed of this decision. Following revision, both documents will need to be resubmitted to the Secretary of State for Transport, and copied to the Secretary of State for Environment, Food and Rural Affairs by an agreed date for further consideration.
- 4.12 Once adopted by the Secretary of State for Environment, Food and Rural Affairs, the Noise Action Plan should be published by the Airport Operator as a public document in an electronic format, within 28 days of being informed that the Noise Action Plan has been adopted. The summary document will be made available in both electronic and paper formats in the same timescale.
- 4.13 The Regulations contain a continuing obligation on Airport Operators to review (and revise, if necessary) the Noise Action Plan every 5 years or sooner where a major development occurs. Where the Airport Operator feels that such a review is necessary, then the process described above regarding consultation and submission shall be followed.
- 4.14 Airport Operators may wish to agree to carrying out an informal review of the progress being made on the implementation of the Action Plan as part of their continuing engagement with the local airport consultative committee or other stakeholders. The process and timing for any informal review should be jointly agreed between the Airport Operator and the committee, or other stakeholders, as appropriate.

Addresses

Department for Transport
Aviation Environment Division
Zone 1/22
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76 Marsham Street
London
SW1P 4DR

Department for Environment, Food and Rural Affairs
Local Environment Protection
Area 2A
Nobel House
17 Smith Square
London
SW1P 3JR

Appendix A

Glossary of Acoustic and Technical Terms

Agglomeration	An area having a population in excess of 100,000 persons and a population density equal to or greater than 500 people per km ² and which is considered to be urbanised
First Round Agglomeration	An agglomeration but having a population in excess of 250,000 persons. A schedule of first round agglomerations can be found in Schedule 1 of SI 2007/415 ⁴⁶
dB(A)	A measure of sound pressure level (“A” weighted) in decibels as specified in British Standard BS EN 61672-2:2003
L _{Aeq,T}	The A-weighted equivalent continuous sound pressure level which is a notional continuous level that, at a given position and over the defined time period, T, contains the same sound energy as the actual fluctuating sound that occurred at the given position over the same time period, T
L _{day}	The L _{Aeq} over the period 0700 – 1900, local time (for strategic noise mapping this is an annual average)
L _{evening}	The L _{Aeq} over the period 1900 – 2300, local time (for strategic noise mapping this is an annual average)
L _{night}	The L _{Aeq} over the period 2300 – 0700, local time (for strategic noise mapping this is an annual average)
L _{Aeq,16h}	The L _{Aeq} over the period 0700 – 2300, local time (for strategic noise mapping this is an annual average)
L _{den}	The L _{Aeq} over the period 0000 – 2400, but with the evening values (1900 – 2300) weighted by the addition of 5 dB(A), and the night values (2300 – 0700) weighted by the addition of 10 dB(A).

⁴⁶ SI 2007 No 415 – The Environmental Noise (Identification of Noise Sources) (England) Regulations 2007

Appendix B

Definition of airports for which noise maps are required by the Regulations

Definition of airports for which noise maps are required by the Regulations

B1 An airport must produce a noise map under the terms of the Regulations if the following conditions apply:

1. It is a civil airport that has more than 50,000 movements per year (a movement being a take-off or a landing), excluding those purely for training purposes on light aircraft (described as a major airport);
and
is identified on a map or in a notice most recently published by the Secretary of State pursuant to regulation 3(1)(d), regulation 3(2)(d) or regulation 3(3)(d) of the Regulations.
2. It is an airport in or near to an agglomeration where the level of activity means that air traffic noise from the airport causes
 - (a) an L_{den} value of 55 dB(A) or greater; or
 - (b) an L_{night} value of 50 dB(A) or greater;anywhere within the agglomeration.

B2 An agglomeration is defined as an area having a population in excess of 100,000 persons and a population density equal to or greater than 500 people per km²; and which is identified on a map or in a notice most recently published by the Secretary of State pursuant to regulation 3(2)(a) or regulation 3(3)(a). For the first round of mapping, reported in 2007, the population threshold is 250,000 and in the Regulations these agglomerations are described as 'first round agglomerations'.⁴⁷

⁴⁷ Regulation 2 of the Regulations

Appendix C

**Schedule of Airports which produced noise maps
in the first round of noise mapping**

**Schedule of Airports which produced noise maps
in the first round of noise mapping**

Airport	ICAO Location Code
Birmingham International*	EGBB
Blackpool Squire's Gate*	EGNH
Bournemouth*	EGHH
Bristol Lulsgate*	EGGD
Coventry	EGBE
Leeds Bradford*	EGNM
Liverpool John Lennon*	EGNH
London City*	EGLC
London Gatwick*	EGKK
London Heathrow*	EGGL
London Luton*	EGGW
London Stansted*	EGSS
Manchester International*	EGCC
Newcastle International*	EGNT
East Midlands*	EGNX
Shoreham	EGKA
Southampton Eastleigh*	EGHI
Southend	EGMC

* - Major Ai

ANNEX B

Aviation Action Planning Guidance

Q&A

Q. What are action plans?

Action plans are a legal requirement under the Environmental Noise Directive (END) as transposed in the Environmental Noise Regulations 2006 as amended. Action Plans are produced as a means to addressing priorities as identified in the noise mapping exercise which exceeds any limit value or criteria chosen by the Member State.

Q. How will action plans be developed?

A Competent Authority will be responsible for drawing up the action plans. In the case of airports, this will be the airport operator, in other cases it is the Secretary of State. The Secretary of State may enter into agreements with the organisations with the power to take measures to develop action plans. For each noise source a key body will draw up a draft plan in consultation with other interested parties. In all cases the plans will be subject to full consultation.

Q. What's being proposed in the guidance?

Annex V of the END sets out the minimum requirements for action plans and the guidance expands on how these elements can be met. The points in question are

- A description of the airport and any other noise sources taken into account – this only includes noise from aircraft departing & arriving and not airport ground noise activities.
- The authority responsible – clarifying that the airport operator is defined as the competent authority
- The legal context
- Any limit values in place which could set a constraint on the level of noise generated. This should have been identified at the noise mapping stage
- A summary of the results of the noise mapping
- An evaluation of the estimated number of people exposed to noise, identification of problems and situations that need to be improved
- A record of the public consultations carried out in accordance with END
- Any noise reduction measures already in force and any projects in preparation
- Actions which the airport operator intends to take within the next five years including measures to preserve quiet areas
- Long term strategy

- Financial information (if available)
- Provisions envisaged for evaluating the implementation and the results of the action plan.

Q. What measures can airports take to reduce noise?

- It has been the policy of successive governments that local environmental issues are best resolved at the local level wherever possible. Aerodromes vary enormously in their size and type of operations and in their local circumstances. Accordingly we believe that it must be for individual airports to consider locally what elements best provide the right solution.
- Airports have a range of noise mitigation measures in force to meet local circumstances. Details of these measures are included in airport master plans and other airport information.
- In addition, the Civil Aviation Act 2006 strengthened airport operators' powers to control noise at airports e.g. to facilitate the introduction of noise control schemes and fine aircraft that breach noise controls. Airports have also been encouraged to introduce penalties for aircraft that stray from agreed flight paths that are designed to minimise the number of people affected by noise. Larger airports have been invited to offer acoustic insulation to noise sensitive buildings such as schools and hospitals affected by medium to high levels of noise.

Q. Will it be mandatory for airports to draw up action plans and act on them?

The Environmental Noise (England) Regulations 2006 designate the airport operators as the competent authority to make review and revise noise maps and action plans. Therefore it is mandatory for the airports to carry out this work.

Q. Is there a conflict of interest in designating airports as competent authorities?

The Government believes that it is appropriate to designate the airport operators of non-designated airports as competent authorities given the different circumstances in which air transport operates as compared with other modes of transport. The expertise, data and methodology for the creation of noise maps is already well established as many airport operators already produce noise contours and have the necessary systems in place to be able to do so. Airports also have consultative committees which include local authorities and other amenity representatives. In case of doubt about the integrity of the maps and action plans, these bodies can investigate the matter.

Q. Which airports have to produce action plans in this first round?

- Birmingham International
- Blackpool Squires Gate
- Bournemouth
- Bristol Lulsgate
- Coventry
- Leeds Bradford
- Liverpool John Lennon
- London City
- London Gatwick
- London Heathrow
- London Luton
- London Stansted
- Manchester International
- Newcastle International
- East Midlands
- Shoreham
- Southampton Eastleigh
- Southend

Q. How will you ensure airports are sticking to action plans?

The Regulations (Part 7.26) give the Secretary of State the power to exercise whatever action he deems appropriate to ensure that the competent authority is adhering to the plans. It also ensures that any expenses incurred can be recovered as a civil debt

Q. How will you measure how well the action plans are working?

The mapping process that will occur every five years will give an accurate picture as to how well the action plans are working. If a marked decline in the requirements to manage or reduce the effects of noise is noted to that previously outlined five years previously is noted then remedies must be stipulated in the new action plans. In extreme cases the Secretary of State will be able to take action as outlined above.

Q. Will Secretary of State be able to insist on improvements/changes to an action plan?

Action Plans need to be submitted to the Secretary of State every five years on their review. He will consider whether the plan is appropriate for adoption. If not, then the necessary changes will have to be made but if so then the onus will be on the airport operator to publish the action plan as a public document in electronic format. Regulation 21 requires the airport operators to treat these action plans as policy and as such they will only be able to depart from the line in specified circumstances.

Q. What is the Commission's deadlines for these action plans?

Action Plans need to be submitted to the Commission by 18 January 2009.

Noise Maps

Q. What is a noise map?

A noise map is rather like a weather map for noise but it shows areas which are relatively louder or quieter. Just as a weather map might have isobars joining points of equal air pressure, a noise map can have contours joining points having the same noise level.

Q. How are they produced?

Noise maps are produced by computer software that calculate the noise level at a specific point as it spreads out from the sources of noise that have been included. The software can take account of features which affect the spread of noise such as buildings and the shape of the ground (eg earth mounds), and whether the ground is acoustically absorbent (eg fields) or reflective (concrete or water).

Q. What are they for?

Noise maps can be used to find areas where noise levels are high and these can be linked to population data to estimate how many people are affected. This leads to the second use – and the main point of noise mapping – to help in the production of noise action plans to manage noise and reduce noise levels where appropriate.