



Department
for Environment
Food & Rural Affairs

Airport Noise Action Plans

**Guidance for Airport Operators on how to revise
Noise Action Plans under the Environmental
Noise (England) Regulations 2006 (as amended)**

July 2017

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Overview

Purpose

- 1.1 This guidance has been produced for airport operators by the Department for Environment, Food and Rural Affairs (Defra), working in conjunction with the Department for Transport (DfT), to assist them in producing Action Plans required under the Environmental Noise Directive. It includes:
- information on the legislative and policy background behind noise action planning;
 - a list of the information that needs to be included in each Action Plan;
 - details of how to update and submit a completed Action Plan; and
 - Annexes listing the airports that are required to produce Action Plans (A); a short glossary of acoustic and technical terms (B); and guidance on meeting the regulatory requirements for Action Plans (C).

Introduction

- 1.2 The Environmental Noise Directive requires certain civil airports in England to produce noise maps and Action Plans.
- 1.3 The Directive operates in 5 yearly cycles known as Rounds, with the current round (Round 3) requiring the operators of these airports to produce noise maps in 2017, using data from the 2016 calendar year. These maps provide a snapshot of the potential noise impact arising from each airport.
- 1.4 The action planning process uses the mapping results and is designed to manage noise issues and effects arising from aircraft departing from and arriving at those airports. Airport Action Plans need to be published by January 2019. A list of the airports that are producing Action Plans under Round 3 of the Environmental Noise Directive is provided in Annex A.
- 1.5 The process supports the Government's aim, set out in the Aviation Policy Framework (APF)¹, to limit and where possible reduce the number of people in the UK significantly affected by aircraft noise. Action Plans should identify whether there are any particular or additional measures that might be taken to meet this aim at each airport, including noise reduction if necessary.

¹ <https://www.gov.uk/government/publications/aviation-policy-framework>

The importance of managing noise impacts

- 1.6 There are many different effects of noise, and individuals experience each of them to different degrees. These can include general detection/distraction; speech interference; disruption of work/mental activity; and sleep disturbance. Any of these can lead to annoyance and possibly more overt reactions, including complaints.
- 1.7 In addition, there are physiological effects that can occur including stress and other health effects. These include an increased risk of heart attacks, hypertension – which is a risk factor for stroke and dementia – as well as the risk associated with sleep disturbance. Annoyance from aircraft noise is also believed to act as a risk factor for some of these health outcomes. Research has shown that it is possible to predict the likelihood of an individual or community experiencing significant impacts such as these as a result of different levels of aircraft noise exposure².
- 1.8 Noise, however, 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.

The legal context

- 1.9 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 END³. The requirements of the END are transposed in the Environmental Noise (England) Regulations 2006⁴ as amended (“the Regulations”).
- 1.10 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 agglomerations⁵ every five years.
- 1.11 Action Plans must be drawn up by the airport operators and be based on the results of the noise mapping. The Regulations also require the Action Plans to be reviewed at least every five years and revised if necessary and whenever a major development⁶ occurs affecting the existing noise situation.

² An overview of the adverse effects of aviation noise was included in the Government’s recent consultation on *Reforming policy on the design and use of UK airspace*:

<https://www.gov.uk/government/consultations/reforming-policy-on-the-design-and-use-of-uk-airspace>

³ http://ec.europa.eu/environment/noise/directive_en.htm

⁴ <http://www.legislation.gov.uk/uksi/2006/2238/contents/made>

⁵ Agglomerations are areas with a population of more than 100,000 persons and a population density 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.

The impact of leaving the European Union

- 1.12 On 23 June 2016, the EU referendum took place and the people of the United Kingdom voted to leave the European Union. Until exit negotiations are concluded, the UK remains a full member of the European Union and all the rights and obligations of EU membership remain in force. During this period the Government will continue to negotiate, implement and apply EU legislation. Therefore END noise Action Plans still need to be completed to the timetable set out below.

Timetable

- 1.13 Defra is required under the END to submit summaries of each airport Action Plan to the European Commission no later than 18th January 2019. Each airport is also required to publish their Action Plan by this date. The regulations also require that each Action Plan is formally “adopted” by Defra’s Secretary of State before the above steps can take place. Defra will contact each airport to agree a timetable for adoption and publication of their Action Plan.

What needs to be included in an Action Plan?

2.1 An Action Plan must be drawn up for places near the airport which are affected by noise from airport operations as shown by the results of the noise mapping⁷ and meet a number of requirements set out in the Regulations:

- 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, including 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 that have taken place;
- any noise reduction measures already in force and any projects in preparation;
- long term strategy;
- actions which the airport operator intends to take in the next five years, including measures to preserve quiet areas;
- financial information (if available): budgets, cost-effectiveness assessment, cost-benefit assessment;
- provisions envisaged for evaluating the implementation and the results of the Action Plan; and
- estimates in terms of the reduction of the number of people affected (annoyed, sleep-disturbed, or other).

2.2 Detailed guidance on how each of the above requirements may be met is provided in Annex C.

⁷ Effectively those places within the mapped contours, i.e. with noise exposures of 55 dB(A), Lden or more; and 50 dB(A), Lnight or more.

How to update and submit an Action Plan

Revising an existing Action Plan

- 3.1 All of the airports listed in Annex A already have an Action Plan in place from previous rounds of END noise mapping. It is envisaged that these airports should follow the process set out below to update their Action Plan.
- 3.2 The current plan should be reviewed and revised to include, as necessary:
- updated details about the airport and its operation;
 - the results of the noise mapping completed in 2017;
 - the progress made against the actions described in the current Action Plan;
 - updated information about relevant legislation and standards;
 - updated relevant national and local policies;
 - information about on-going actions; and
 - information about any proposed new actions.
- 3.3 When revising their plans, airport operators should ensure that all the requirements set out in the regulations (listed in paragraph 2.1 above and described further in Annex C) are met.
- 3.4 It is envisaged that once the plan has been revised it will be presented to the Airport's Consultative Committee for comment, and any other appropriate bodies depending on the extent and nature of the revisions. The Airport Operator should summarise the comments received in the revised plan together with their response to the issues raised.

Submitting an Action Plan for formal adoption

- 3.5 Once the plan has been updated and finalised, the Regulations require that it be sent to the Secretary of State for Defra for formal "adoption". This document can be sent to Defra via the noise@defra.gsi.gov.uk email address and must include prominently displayed wording identifying it as a draft subject to formal adoption and approval.

3.6 The Secretary of State for Defra, in liaison with the Department for Transport, will form a view regarding whether or not the submitted revised plan meets the requirements of the Regulations and, therefore, whether or not the plan is appropriate for adoption.

- If the Secretary of State for Defra considers that the requirements set out in the Regulations are met, they will notify the airport accordingly that the Action Plan has been adopted. The Action Plan should then be published by the Airport Operator as a public document in an electronic format within 28 days.
- If the requirements set out in the Regulations are not met, the airport operator will be required to make the necessary changes to the plan. Following revision, the revised plan will need to be resubmitted to the Secretary of State for Defra by an agreed date for further consideration.

Ongoing requirement to review Noise Action Plans

3.7 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.

3.8 Airport Operators may wish to agree to carry 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. Such reviews could form part of any regular environmental reporting that is already undertaken.

3.9 It should be noted that the Regulations give the Secretary of State the power to take action should they believe that a requirement of these Regulations is not being met due to any act or omission by the Airport Operator.

Annex A: Airports which will be producing END Round 3 Action Plans

| Airport | ICAO Location Code | Current Noise Action Plan |
|---------------------------|--------------------|---------------------------|
| Birmingham International* | EGBB | Yes |
| Bournemouth | EGHH | Yes |
| Bristol* | EGGD | Yes |
| Cambridge | EGSC | Yes |
| East Midlands* | EGNX | Yes |
| Leeds Bradford | EGNM | Yes |
| Liverpool John Lennon | EGNH | Yes |
| London City* | EGLC | Yes |
| London Gatwick* | EGKK | Yes |
| London Heathrow* | EGLL | Yes |
| London Luton* | EGGW | Yes |
| London Stansted* | EGSS | Yes |
| Manchester International* | EGCC | Yes |
| Newcastle International* | EGNT | Yes |
| Southampton | EGHI | Yes |
| Southend | EGMC | Yes |
| Wycombe Air Park | EGTB | Yes |

*Major airport as defined in the END (over 50,000 qualifying movements per year)

Annex B: Glossary of acoustic and technical terms

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|----------------------|--|
| 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 |
| dB(A) | dB(A) is a measure of sound pressure level (“A” weighted) in decibels as specified in British Standard BS EN 61672-2: 2003. (Defra are aware that this Standard has been replaced and therefore pending an update to the Regulations would recommend that British Standard BS EN 61672-2: 2013 is used instead). |
| 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 10dB(A). |

Annex C: General requirements for Action Plans and how they may be met

The Action Plan must meet a number of requirements set out in the Regulations. These are reproduced in the table below, together with accompanying guidance suggesting how each requirement may be met.

| Requirement | How requirement may be met |
|--|---|
| A description of the airport and any other noise sources taken into account. | This information should have already been gathered as part of the data that had to be submitted to Defra under the noise mapping process. No other noise sources (such as 'ground noise' from airport activities or helicopter activity) will have been taken into account in the noise mapping. However, that does not preclude the Action Plan covering other airport related noise sources. |
| The authority responsible. | This is the name of the airport operator, who is defined in the Regulations as the competent authority for preparing the airport Action Plan. |
| The legal context. | <p>This requires a reference to the "Environmental Noise (England) Regulations 2006" which place the responsibility of preparing the Action Plan onto the airport operator.</p> <p>Action Plans must also 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.</p> |
| Any limit values in place. | 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. |
| A summary of the results of the noise mapping, including an evaluation of the estimated number of people exposed to noise. | <p>The aim of this requirement is to provide a description of the current noise impact of the airport on its surroundings.</p> <p>The results should include, for the various noise indicators for which mapping was carried out, the number of people</p> |

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| | <p>and dwellings that lie within the various contour bands. This information is being generated by the Environment Agency, based on the mapping results provided by individual airport operators. It will be provided to airport operators in the form of Airport Noise Action Planning Data Packs.</p> <p>Airport operators may also include information about other noise sensitive premises such as hospitals, schools other premises or specific types of land use depending on local circumstances and priorities.</p> |
| <p>Identification of problems and situations that need to be improved.</p> | <p>Airport Operators will primarily have two pieces of information available to them for action planning:</p> <ol style="list-style-type: none"> i. The current noise impact of their operations as shown by the results of the noise mapping ; and ii. The current noise control measures they have in place. <p>The Government’s overall objective on aviation noise is to limit and where possible reduce the number of people in the UK significantly affected by aircraft noise. The Action Plan process requires operators to consider whether there is scope for implementing additional noise management measures in pursuance of the Government’s policy objective.</p> <p>When considering any new noise management measure within the Action Plan, Airport Operators should consider in a proportionate manner the following:</p> <ul style="list-style-type: none"> • The benefit that would be achieved from the measure; • The impact of the measure on other environmental factors, such as local air quality and climate change; • The costs of implementing the measure, both direct and indirect; and • The implication of failing to implement a particular measure, both direct and indirect. <p>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. Further guidance is provided in the “long term strategy” section below.</p> |

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| <p>A record of the public consultations that have taken place.</p> | <p>The END specifies that, in preparing and revising Action Plans, Airport Operators must ensure that:</p> <ul style="list-style-type: none"> • 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; and • reasonable time frames are provided allowing sufficient time for each stage of public participation. |
| <p>Any noise reduction measures already in force and any projects in preparation.</p> | <p>Airport operators will have existing measures in place to mitigate noise impacts. This requirement can be met by describing the current noise control measures, including those set out in any existing noise Action Plan and updating them as appropriate.</p> |
| <p>Long term strategy.</p> | <p>Airport operators should describe the likely development of their airport in the future. It is expected that reference would be made here to any Master Plan developed by the airport and the provisions of the Government’s Aviation Policy Framework (APF). Note that the Government has recently consulted on proposed changes to the Aviation Policy Framework⁸ and airport operators should be aware that updated provisions may be published during the course of the action planning process.</p> <p>As part of the action planning process, Airport Operators should:</p> <ul style="list-style-type: none"> • 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 $L_{Aeq,16h}$⁹; • Consider what further measures should be taken to assist the management of aircraft noise affecting |

⁸ <https://www.gov.uk/government/consultations/reforming-policy-on-the-design-and-use-of-uk-airspace>

⁹ As the data are taken from the strategic noise maps, this is the $L_{Aeq,16h}$ annual average value

noise sensitive buildings, such as schools and hospitals;

- 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 from departing or arriving aircraft that might be managed further;
- Be satisfied 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;
- Consider how best to ensure transparency and engagement around operational changes which affect noise; and
- Reflect the International Civil Aviation Organisation's balanced approach for noise management.

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 2003.

Some useful information may also be found in the CAA Guidance on the Application of the Airspace Change Process (CAP725)¹⁰ and its draft revision of that guidance (CAP1520)¹¹.

¹⁰ 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>

¹¹ <http://publicapps.caa.co.uk/modalapplication.aspx?appid=11&mode=detail&id=7818>

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| <p>Actions which the airport operator intends to take in the next five years, including measures to preserve quiet areas.</p> | <p>This may be linked to the section above.</p> <p>At the time of publication of this guidance (July 2017), no quiet areas had been designated within agglomerations affected by any of the airports that are in scope of the END Round 3 mapping and action planning requirements. Defra will inform any airport concerned if this situation changes before finalisation of their Action Plan.</p> |
| <p>Financial information (if available): budgets, cost-effectiveness assessment, cost-benefit assessment.</p> | <p>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.</p> |
| <p>Provisions envisaged for evaluating the implementation and the results of the Action Plan.</p> | <p>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.</p> |
| <p>Estimates in terms of the reduction of the number of people affected (annoyed, sleep disturbed, or other).</p> | <p>The Action Plan should contain an indication of the expected outcome(s) of any measures that will be put in place as a result of having this Action Plan. At the most basic level this could include an estimate of the number of people affected with and without the measures set out in the Action Plan.</p> |