

Environmental Noise Directive

Action Plan Summary

STRATEGIC NOISE ACTION PLAN SUMMARY FOR EDINBURGH AIRPORT

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1. Introduction

This document represents the summary of the Edinburgh Airport Noise Action Plan and is submitted to the European Commission in accordance with Article 10.2 Annex VI 1.8 & 2.8 of Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002 relating to the assessment and management of environmental noise.

The format of the summary follows the requirements of Appendix V of the directive.

This is the first time the airport has produced a Noise Action Plan. Producing the plan has helped to consolidate all the current work on noise management in the airport into one clear concise document. It has also helped to solidify our plans for the next 5 years to improve our noise management. However the plan is not set in stone and we envisage the plan to be a flexible document which can be updated and revised as and when required.

The draft version of the plan was published on our website and we directed our local stakeholders to make comments on the plan. The comments were fed back to an independent consultant to collate and review. We have taken into consideration the comments made by interested parties, and where appropriate we have revised the plan to reflect these comments.

We will continue to engage with local communities and other key stakeholders so that we better understand their concerns and priorities and feed this into the plan when required.

2. A description of Edinburgh Airport.

Edinburgh Airport, as it stands today, covers 375 hectares. It is bounded to the north by the River Almond, to the south by Royal Highland and Agricultural Society of Scotland (RHASS) land and to the east by the Edinburgh to Fife rail line.

The existing terminal building and main runway were developed in 1977 and replaced the runway and terminal facilities at Turnhouse to the east of the existing terminal. The Turnhouse facilities had been in place since before the Second World War and, by the early 1970s, these were clearly outdated and not able to facilitate the rising demand for air travel at that time or in the future.

On completion of the new terminal building and runway in 1977, the facilities at Turnhouse became the centre for Edinburgh Airport's burgeoning cargo operation, which is now Scotland's small parcels hub and a key facility supporting Scots businesses and the economy.

The core developed area is around the terminal building. Other developed areas comprise the Business Aviation Terminal and maintenance area adjacent to the Gogar Burn, the Cargo Terminal at Turnhouse Road and the western ancillary area at Almond Road.

Edinburgh Airport provides air services for the greater Edinburgh area and south-east Scotland and is now Scotland's busiest airport. It is one of the fastest growing airports in the UK, serving over 100 domestic and short-haul destinations and four long-haul.

At privatisation in 1987, Edinburgh handled just 1.85 million passengers per annum (mppa).

In 2007, the airport handled 9m passengers, of whom 62% were travelling on domestic services (primarily to/from the London airports) and 38% on international services. Approximately 42% of passengers were travelling on business and 37% of passengers travelled on no-frills airlines. The majority of passengers (83%) were resident in the UK.

The airport has grown at an average of 8.9% per year since 1995.

All the growth at Edinburgh Airport is coming from international traffic, mainly short haul European flights. International growth is moving at 10% per annum, albeit from a small base. Domestic traffic is currently in decline by 6% as more passengers are able to fly to international destinations direct rather than transferring through other UK airports. Average passenger load per passenger aircraft has risen from 59 to 72%, an annual average increase of approximately 3.5% over the last 15 years.

3. The authority responsible.

The Scottish Government is the Competent Authority for END and is responsible for drawing up Noise Action Plans except in the case of Airports where the Airport operator is the Competent Authority.

BAA has worked very closely with the Scottish Governments' consultants to produce the required noise maps and have been fully involved in the Action Plan process in terms of both producing Action Plans for Edinburgh Airport and the Edinburgh Agglomeration Noise Action Plan.

4. The legal context.

The regulations which transpose the Environmental Noise Directive in Scotland are [The Environmental Noise \(Scotland\) Regulations 2006](#). The regulations came into force on 5th October 2006 and apply to environmental noise to which humans are exposed. The regulations apply to noise from road, railway and airport sources, as well as industrial noise. The regulations do not apply to noise that is caused by the person exposed to the noise, noise from domestic activities, noise created by neighbours, noise at work places, or noise inside means of transport or due to military activities in military areas.

There are five main tiers of regulation governing aircraft noise in Scotland:

- International – International Civil Aviation Organisation (ICAO)
- European - The European Union
- National - the UK Government

- Scottish Government
- Local - Local Authorities

However, the airport itself can and does act as another important regulator of aircraft noise in its own right.

International Regulation

At an international level, the International Civil Aviation Organisation (ICAO) sets progressively tighter certification standards, known as Chapters for noise emissions from civil aircraft to which member countries' fleets must conform.

Further details of these standards can be found at ww.dft.gov.uk and www.caa.co.uk.

In addition to these specific requirements, the ICAO requires member states to adopt a "*balanced approach*" to noise management which looks beyond individual aircraft to reduce noise impact through:

- reducing aircraft noise at source
- land-use planning
- changes to operational procedures
- restrictions on the use of the noisiest aircraft.

European Regulation

The European Union (EU) is increasingly assuming responsibility for the regulation of aircraft noise standards. The Directives of most relevance are:

- EC Directive 92/14/EEC, which banned Chapter 2 aircraft from landing in the EU from 1st April 2002. Examples of these are the BAC-1-11 or a B737-200.
- EC Directive 2002/30, which introduced discretionary powers to restrict the operation of marginally compliant Chapter 3 aircraft, where circumstances support this measure. The Directive also required the publication of an environmental noise objective for the airport and the adoption of a balanced approach to noise management including the four dimensions agreed by ICAO.
- EC Directive 2002/49 ('environmental noise directive'), which requires member states to create 'noise maps' of noise from all transport sources in urban areas by 2007, and to adopt action plans to manage noise by 2008. The Directive also aims to harmonise methods for measuring noise across the EU. This is the Directive under which we have produced the Noise Action Plan.

National Regulation

The UK Government has an important role in setting and developing the policy framework for aircraft noise control at UK airports and has prescribed a range of controls on aircraft noise impacts.

The December 2003 *The Future of Air Transport* White Paper outlined several new policies for airports which control, mitigate and compensate for aircraft noise.

Full details of the range of aircraft operations related noise controls are set out in statutory notices and published in the UK Aeronautical Information Package (UKAIP) and elsewhere as appropriate. These controls include aspects such as Continuous Descent Approaches (CDAs), noise abatement procedures and night flight limits.

The 1982 and 2006 Civil Aviation Acts grant the Government and airports powers to introduce noise control measures, including mitigation.

Following a lengthy consultation, the DfT also implemented the following specific noise abatement objectives for the course of this current night flight regime which runs from 2006 to 2012:

- Minimise sleep disturbance resulting from overflight of the noisiest types of aircraft;
- Mitigate the effects of noise (in particular sleep disturbance effects) by encouraging the adoption by the airport of night-noise-domestic insulation schemes;
- Limit the 6.5 hour 48 dB LAeq contour (for the winter and summer seasons combined) to 55km² by 2011-2012.

Scottish Regulation

The regulation of aviation and air transport (including the Civil Aviation Act) has been reserved to the Secretary of State and has not been devolved to the Scottish Parliament. However certain functions, such as aircraft noise are exercisable by the Scottish Ministers.

Noise from aircraft in flight is not treated as nuisance. Ground noise, other than normal aircraft movements, at the airport may be controlled by the local authority.

Airport Operators

The Civil Aviation Act 2006 clarified the scope of the powers available to airport operators in aircraft noise management. An airport may charge aircraft operators for use of the aerodrome by reference to the noise or emissions from an aircraft. This enables the airport operator to introduce differential charging to help incentivise the use of quieter and cleaner aircraft. The airport can also levy financial penalties on an aircraft operator which breaches noise abatement requirements imposed by the UK Government, as is the case at Edinburgh Airport.

Information on the financial incentives used by BAA Edinburgh to encourage the use of quieter aircraft and operational practices are listed in the airport Conditions of Use. Available from www.baa.com/cou.

5. Any limit values in place in accordance with Article 5.

None

6. A summary of the results of the noise mapping.

All member states were required to produce agglomeration strategic noise maps for major roads, rail, airports, and industry (including port area if appropriate) by the end of June 2007. The Airport met this target and the data, as required under Article 10(2) of the Environmental Noise Directive (2002/49/EC), was submitted via the Scottish Government on the 19th December 2007 to the European Commission.

The location of Edinburgh Airport and the alignment of the main runway means that relatively fewer people are impacted by the airport's operation when compared to some other UK airports.

The prevalence of westerly winds mean that approximately 70% of aircraft arrivals come from the east, over the community of Cramond. Around 70% of departures are to the west over Newbridge and Livingstone. When aircraft depart to the east, a noise preferential route is used, which seeks to ensure aircraft do not fly over Cramond.

The main runway at Edinburgh Airport is currently equipped with an instrument landing system (ILS), which sends out a signal for aircraft to use to arrive at a steady three degree angle of approach. This ILS system requires aircraft to lock into the signal at least eight miles from the end of the runway, over the Firth of Forth for arrivals from the east. As a result of this technology, it is not possible for aircraft to avoid passing over areas of population such as Cramond when arriving from the east.

Other communities, including Lennymuir, Ratho Station and Kirkliston are impacted by ground noise from the airport.

When the secondary runway is used, aircraft are routed over parts of west and south Edinburgh. This has been found to cause particular disturbance as residents in these areas are less used to aircraft noise.

7. An evaluation of the estimated number of people exposed to noise.

Detailed below are the areas and populations exposed to certain noise contours for the L_{den} noise contours.

Table 1: Estimated Areas, Population and Households Within 2006 L_{den} Edinburgh Airport Noise Contours

Contour Level dB(A)	Area (Km ²)	Population	Households
>55	34.4	12,400	5,200
>60	12.3	3,200	1,300
>65	4.3	500	200
>70	1.6	0	0
>75	0.7	0	0

8. Identification of problems and situations that need to be improved.

Currently the noise contours relating to aircraft noise for the airport do not accurately reflect the levels of annoyance experienced by residents living close to the airport.

This means that the contours should not be relied on as the only way to measure the impacts of aircraft noise. It can be difficult to communicate messages to the local community relating to these contours.

It is also a significant challenge for the airport operator to be the competent authority for aircraft noise. The airport doesn't operate any aircraft and has limited control over flight paths and restrictions.

Currently the noise contours used in the mapping are for aircraft noise only; the next round of mapping will require ground noise from the aircraft and operations of the airport to be included. There may be some challenges relating to how this noise is measured and represented on the maps.

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

A web based public consultation was held from 12th May to the 11th July 2008 on the draft version of this action plan. Responses from the consultation were collected by an independent consultant and their report can be found as an annex in the Noise Action Plan.

BAA always welcome's comments and queries relating to noise and encourages interested parties to contact the airport with their comments and queries.

The Scottish Government also carried out a Strategic Environment Assessment of the Noise Action Plans. This was publicly consulted on from 22nd October until the 19th December 2008 via their web site. The results of this consultation can be obtained from the Scottish Government.

10. Any noise-reduction measures already in force and any projects in preparation.

The airport has been proactively managing noise impacts for a number of years. Some of the measures already in place at Edinburgh include;

1. Differential landing charges for noisier aircraft.
2. Fining of aircraft in breach of our set noise limits and directing all money raised by noise infringements to the Edinburgh Community Trust.
3. Offering a relocation assistance scheme for those households within the airports 69db Leq noise contour.
4. Free phone number for the local community to log queries and complaints.
5. Publishing noise contours and predicted noise contours.
6. Raising noise as an issue with the airlines.

11. Actions which the competent authorities intend to take in the next five years, including any measures to preserve quiet areas.

In order to structure the actions we intend to take over the next 5 years we have set five key themes for our noise work programme. These are detailed below;

- a.) Demonstrating our continuing commitment to managing aircraft noise impacts associated with Edinburgh Airport's operations:
 - (i) Quietest fleet practicable.
 - (ii) Quietest practicable aircraft operations, balanced against NOx and CO2 emissions.
 - (iii) Effective and credible noise mitigation schemes.
- b.) Allowing us to engage with our communities affected by aircraft noise and better understand their concerns and priorities.
- c.) Influencing planning policy to minimise the number of noise sensitive properties around our airports.
- d.) Organising ourselves to continue to efficiently and effectively manage aircraft noise.
- e.) Building on our extensive understanding of aircraft noise to further inform our priorities, strategies and targets.

We have set out actions under each of these themes which are set out in Section 10 of our noise action plan. One action is of particular note and this is to consult separately on the introduction of a new noise mitigation scheme like that in operation at London Heathrow and Gatwick, by the end of 2009.

12. Long-term strategy.

The airport's long term strategy is centred around the following objective for the management of aircraft noise:

To gain the trust of our stakeholders that we are using best practicable means to minimise existing aircraft noise impacts, and this approach will continue into the future, within the framework established by Government.

This objective is supported by a long-term goal to be in the top fifth of companies for best practice in international airport noise management on comparable sites. Edinburgh Airport will publish progress against actions set out in the Noise Action Plan in the airport's Corporate Responsibility Report, together with performance information against key noise indicators.

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

Current costs for noise management are set out in the table below. For any actions set out in the plan which could incur a cost a cost benefit analysis will be carried out.

Type	Description	Approximate Cost
Staff Costs	Flight Evaluation Team, Communications Team, Environment Team, Airside Team	£50000
Computer Costs	Noise and Track Keeping System, web site development	£25000
Equipment Costs	Noise Monitor maintenance,	£20000

	Radar maintenance	
Publications	Community News Letters	£5000

14. Estimates in terms of the reduction of the number of people affected (annoyed, sleep, disturbed, or other).

It is very difficult to estimate how the actions in the plan will affect people's annoyance. Different actions will have different results for a differing number of people. However there are an estimated 12,400 people identified by the mapping exercise who experience Lden dB 55 or greater due to aircraft noise. These are the people for who we aim to reduce noise impact.

15. Provisions envisaged for evaluating the implementation and the results of the action plan.

We will monitor a set of performance indicators to assess our effectiveness in each area of focus, to ensure that the work we are undertaking is resulting in the maximum benefit in terms of reducing noise impacts.

The full range of indicators is set out in the Noise Action Plan in Section 10. Our performance against these indicators will be regularly reviewed internally through our environmental governance structure. We will also report on progress against these in our annual Corporate Responsibility Reports.

During the five-year period of this action plan, we may add to or amend the range of performance indicators to respond to improvements which enable us to better manage the airport noise impacts.