Aberdeen
International Airport Ltd

Noise Action Plan

2024 - 2028

Aberdeen International Airport

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Executive Summary

This document sets out Aberdeen International Airport's Noise Action Plan, which aims to manage and, where practicable, reduce the adverse effects of aviation related noise. The preparation of a Noise Action Plan is a requirement of The Environmental Noise (Scotland) Regulations 2006. This document updates and replaces the 2018–2023 Noise Action Plan. The Noise Action Plan has been updated following an eight-week public consultation and will operate from 2024-2028.

Aberdeen International Airport provides an essential service to a host of different industries and sectors, while our share of the leisure market continues to grow. Our facilities are always improving in line with our capital programme, and we work every day on improving the customer experience.

As well as the benefits provided by the airport, we recognise that aircraft noise can be an important issue for local communities. Although the noise generated by an airport cannot be eliminated, we are conscious that it is important to reach a balance that allows growth in a sustainable manner whilst also enhancing the economic and social benefits to the region, and ultimately remaining a good neighbour to local residents. We have reviewed our previous action plan and introduced updates and enhancements to our current actions to build upon the progress we have made over the past five years working proactively and in collaboration with a variety of stakeholders and local communities. This Noise Action Plan demonstrates our commitment and the importance that the airport places on the issue of noise and our aim to minimise the impact of noise from our airport as far as reasonably practicable.

2

Introduction and summary

This section provides an introduction and summary of the Noise Action Plan covering all the important aspects referred to in Annex V of the **Environmental Noise Directive (EC Directive 2002/49)**.

2.1 Purpose of the Noise Action Plan

The purpose of the Noise Action Plan is to set out our approach to management of and, as far as reasonably practicable, reduction of the total adverse effects of aviation noise. This document is an update to the 2018 – 2023 Noise Action Plan and will be in place from 2024 to 2028. The Noise Action Plan has been updated following an eight-week public consultation.

At Aberdeen International Airport we recognise that aircraft noise is an important issue for local communities. We support the UK Government's overarching aviation noise policy to limit, and where possible reduce, total adverse effects on health and quality of life from aviation noise[1]. This requires balancing the positive social and economic benefits provided by Aberdeen International Airport with any adverse effects on local communities.

This Noise Action Plan builds upon decades of progress in developing mitigation measures in consultation with our neighbours and stakeholders and importantly includes updates and enhancements to our current noise mitigation measures.

2.2 Scope of the Noise Action Plan

This Noise Action Plan complies with the Environmental Noise (Scotland) 2006 Regulations (as amended). The airport operator (Aberdeen International Airport Ltd) is deemed the competent authority for preparing the Noise Action Plan. The Noise Action Plan has been developed following guidance from the Scottish Government[2].

The scope of the Noise Action Plan does not include noise from airport construction activities nor from road or rail traffic.

The legal and Government policy framework for the Noise Action Plan is set out in **Section 3**.

The requirements of the Noise Action Plan include the provision of financial information which is presented in **Appendix B**.

[1] The UK Government has clarified (in Air Navigation Guidance 2017) that this means the total adverse effects on people as a result of aviation noise should be limited and, where possible, reduced, rather than the absolute number of people in any particular noise contour.

[2] Airport Noise Action Plans, Guidance to Airport Operators on how to prepare or revise Noise Action Plans under the Environmental Noise (Scotland) Regulations 2006 (as amended), Scottish Environment Protection Agency, 2024.

2.3 Airport description

Aberdeen International Airport is the north-east of Scotland's major transport hub and a vital economic driver for the region. The airport is the gateway to Europe's energy capital and is Europe's busiest heliport.

The airport is operational 24 hours a day, 365 days per year for fixed wing flights, servicing over 30 destinations and upwards of two million passengers. Helicopters are allowed to operate between 0600 hours and 2230 hours, supporting approximately 360,000 passengers each year.

The Covid-19 pandemic had a huge impact on aviation. Aberdeen International Airport supported the energy sector throughout this period and remained open servicing lifeline flights for the Highlands and Islands. Passenger numbers have been on a steady recovery since the pandemic, with the airport seeing over two million passengers in 2022.

Aberdeen International Airport is approximately seven miles northwest of Aberdeen city centre. It is bounded to the north by open farmland, to the west by Kirkhill Industrial Estate, to the east by the village of Dyce, and to the south by the ABZ Business Park and TECA developments.

The history of Aberdeen International Airport dates from 1934, when land at Dyce was acquired for the development of a public aerodrome. This means the airport was 90 years old in 2024. During the Second World War the airport was primarily used as a military air base. Oil-related helicopter movements commenced in 1967 and the current main terminal and associated facilities were completed in 1977. The airport redeveloped its main terminal building, extending its square meterage by 50% in 2019.

Aberdeen International Airport has one passenger terminal building, one runway for fixed-wing aircraft, and three runways used for helicopters only.

The approximate number of aircraft movements and passengers that operated at the airport from 2019 to 2023 is presented in Table 1.

Table 1 Total annual passengers and aircraft movements

Total annual	2019	2020	2021	2022	2023
Passengers (millions)	2.97	1.03	1.14	2.03	2.30
Aircraft movements (fixed-wing)	52,000	26,000	30,000	40,000	43,000
Aircraft movements (helicopters)	37,000	30,000	33,000	34,000	32,000

2.4 Results of the strategic noise mapping

The Environmental Noise (Scotland) 2006 Regulations require that strategic noise maps are produced as part of Airport Noise Action Plans. These noise maps describe the noise situation at an airport at a particular point in time. For this round of Noise Action Plans, the required noise mapping year is 2021. Strategic noise maps for 2021 and the estimated number of people exposed to noise are presented in **Section 5** and **Appendix A**.

2.5 Noise reduction measures

A summary of noise management measures already in force at Aberdeen International Airport is presented in **Section 6**. New and updated actions in this Noise Action Plan that will be undertaken in the next five years, as well as those that form part of the long-term noise reduction strategy, are presented in **Section 7**. Each action in the Noise Action Plan includes a description of the performance indicators that will be used to evaluate the implementation of the action plan.

2.6 Airspace Change Proposal

Like many airports in the UK, we are currently undergoing an Airspace Change Proposal (ACP).

Our ACP will provide resilience to our operation and support the widespread introduction of new routes based on satellite navigation, known as Performance Based Navigation (PBN). The airspace change will also take the opportunity to review existing controlled airspace boundaries and classifications.

This ACP will enable Aberdeen International Airport to meet the UK's Airspace Modernisation Strategy (AMS), which sets out the initiatives which the aviation industry, in particular airports, should progress to modernise the UK's airspace structure and route network.

The ACP process is regulated by the CAA and is completely separate to the Noise Action Plan process. Noise impacts however are a key element of the decision-making process as to whether an airspace change should go ahead.

For more information on the ACP, please visit **aberdeenairport.com/airspace/**

2.7 Consultation

This Noise Action Plan was initially developed in consultation with the Aberdeen International Airport Consultative Committee (AIACC) and was then subject to an eight-week public consultation. The draft Noise Action Plan was presented to the AIACC through committee meetings and the full draft was shared with the AIACC for comment. The Chair of the AIACC has confirmed that the committee had no comments on the draft and that the AIACC agree with the contents of the draft Noise Action Plan.

The public consultation ran from 12th August to 6th October 2024. The public consultation utilised a variety of methods to engage stakeholders and raise awareness. Flyers were distributed to approximately 450 properties near the airport, emails were sent to stakeholders who had engaged with the airport on other matters, and a consultation website was launched on the Commonplace platform where specific questions were asked about the proposals. Members of the public and stakeholders were also able to engage with the consultation via post. The consultation was advertised on social media and awareness was raised by press releases to local media. Two webinars were held by the airport and these sessions provided an opportunity for stakeholders to raise questions on the draft Noise Action Plan to airport representatives and noise specialists.

Please refer to **Appendix C** for further details regarding the questions asked during the consultation and the table of responses.

3

Legal and Government policy framework

The mitigation and management of aircraft noise is heavily informed by national and international initiatives and regulation imposed by:

- The International Civil Aviation Organization (ICAO);
- The UK and Scottish Government;
- Local authorities; and
- Aberdeen International Airport itself.

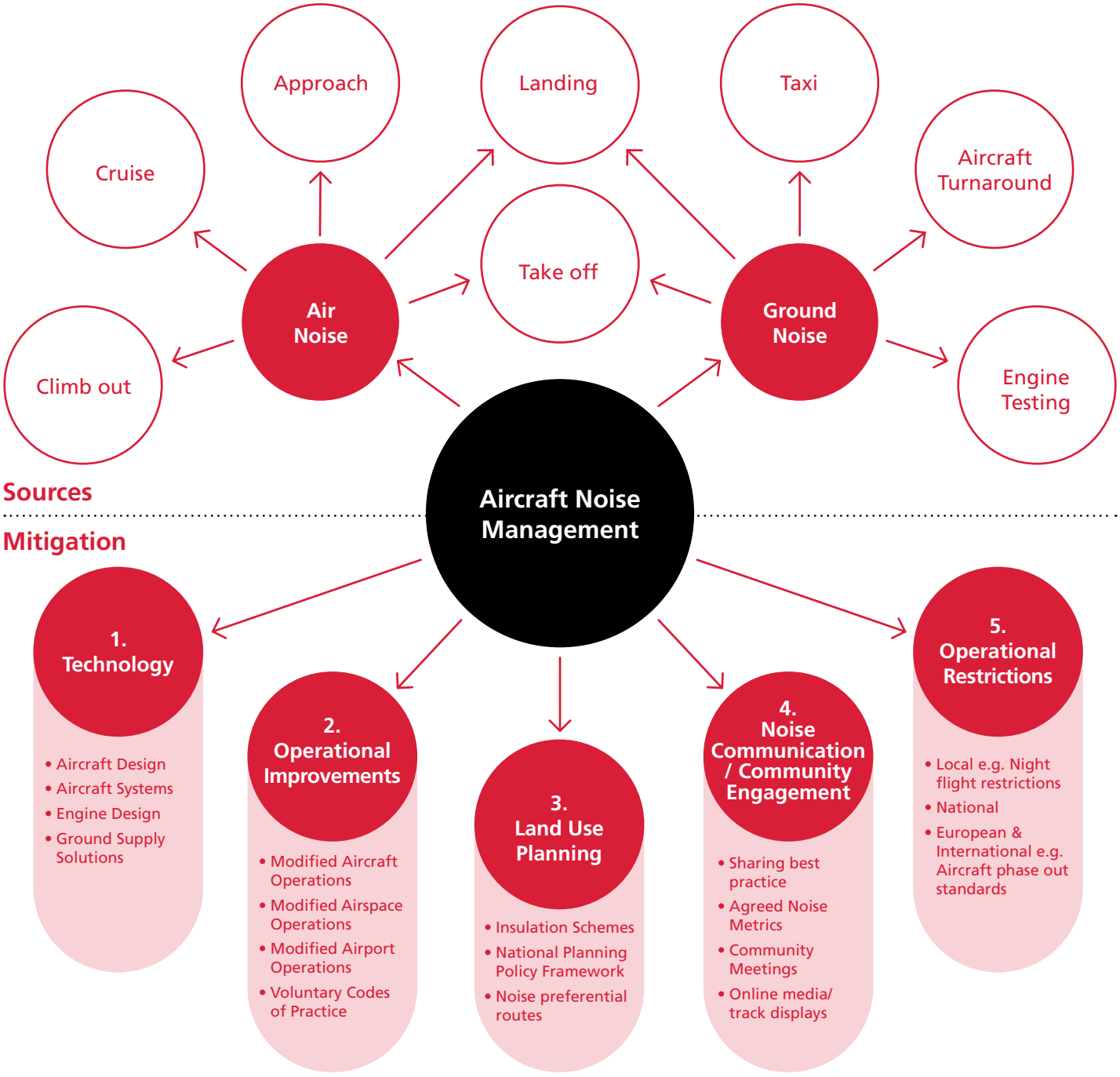
3.1 ICAO and the 'Balanced Approach'

ICAO is a specialised agency of the United Nations, created to promote the safe and orderly development of international civil aviation throughout the world. It sets standards and regulations necessary for aviation safety, security, efficiency and regularity, as well as for aviation environmental protection. After a Standard is adopted it is put into effect by each ICAO member state in its own territories.

ICAO recognises that aircraft noise is the most significant cause of adverse community reaction related to the operation and expansion of airports and it requires all its member states to adhere to an approach to managing aircraft noise known as the 'Balanced Approach'. The Balanced Approach (see Figure 1) aims to address noise management in an environmentally responsive and economically responsible way, and encompasses four principal elements:

1. Reduction of noise at source;
2. Land-use planning and management;
3. Noise abatement operational procedures; and
4. Operating restrictions on aircraft.

Figure 1: Balanced Approach to noise management as represented in the Sustainable Aviation Noise Roadmap



Our Noise Action Plan embraces the Balanced Approach and the plan outlined in **Section 7** adopts this format. As we recognise the importance of engagement with our local communities, we have added an additional pillar to the Balanced Approach, titled 'Community Engagement'. This is in alignment with the Sustainable Aviation Noise Roadmap[3].

ICAO is also responsible for aircraft certification and it has set progressively tighter certification standards for noise emissions from civil aircraft. Aircraft operating in member states must conform to these standards, which are known as 'Chapters'.

The Chapters set maximum acceptable noise levels for different aircraft under specific test conditions. Chapter 2 aircraft have been banned within Europe since 1 April 2002, unless they are granted specific exemptions. The vast majority of civil aircraft now operating therefore fall within Chapters 3, 4 and 14, i.e. they have a smaller noise footprint than the previous Chapter 2 aircraft. All new aircraft manufactured from 2006 onwards must meet the requirements of Chapter 4. In 2014 the ICAO Council adopted the new Chapter 14 noise standard for jet and propeller-driven aircraft. This will be the mainstay of ICAO aircraft noise regulations for the coming years. It is applicable to new aircraft types submitted for certification on or after 31 December 2017, and on or after 31 December 2020 for aircraft less than 55 tonnes in weight.

[3]The SA noise road-map: a blueprint for managing noise from aviation sources to 2050, Sustainable Aviation, 2013 **https://www.sustainableaviation.co.uk/quieter/**

3.2 European Union

Whilst the UK has left the European Union, many of its directives have been mapped across to UK legislation. For example, the Environmental Noise Regulations (Scotland) 2006 (as amended) has mapped across the requirements of the Environmental Noise Directive (EC Directive 2002/49) for major airports to produce strategic noise maps and Noise Action Plans every five years.

3.3 UK and Scottish Government

3.3.1 Current Government policy framework

The UK Government plays an important role in setting policy for aviation noise management. The Civil Aviation Acts of 1982 and 2006 granted the UK Government the power to introduce mitigation and noise control measures. The 2013 Aviation Policy Framework set out the challenges of noise control at airports and noted the Government's recognition of the Balanced Approach principle of aircraft noise management. More recently, the UK Government has published, and consulted on, its Airspace Policy framework[4]. The Government has also published the Air Navigation Guidance[5], which provides guidance to the CAA on its environmental objectives when carrying out its air navigation functions, and to the CAA and wider industry on airspace and noise management. The Government's consultation response on the Airspace Policy provides an update to some of the policies on aviation noise outlined in the Aviation Policy Framework and should be viewed as current Government policy. Whilst the Government has also published recommendations for its long-term plan for sustainable aviation growth in the Aviation 2050 green paper, the Government has yet to fully respond to the consultation, so the recommendations contained within the paper are not yet current Government policy.

In March 2023 the Department for Transport published their new overarching aviation noise policy statement, reproduced below:

> The government's overall policy on aviation noise is to balance the economic and consumer benefits of aviation against their social and health implications in line with the International Civil Aviation Organisation's Balanced Approach to Aircraft Noise Management. This should take into account the local and national context of both passenger and freight operations, and recognise the additional health impacts of night flights.
>
> The impact of aviation noise must be mitigated as much as is practicable and realistic to do so, limiting, and where possible reducing, the total adverse impacts on health and quality of life from aviation noise.

Noise is addressed in the Scottish Government's National Planning Framework 4 through Policy 23 'Health and Safety' which ensures that noise is taken into account in planning decisions to protect health and wellbeing. This includes the principal of 'agent of change' which requires that where an application is made for noise sensitive development which is likely to be affected by noise from existing sources of noise such as an airport, the applicant for the new development is required to demonstrate both that they have assessed the potential impact on occupants of the proposed development and that the proposed design incorporates appropriate measures to mitigate this impact.

[4]Consultation Response on UK Airspace Policy: A framework for balanced decisions on the design and use of airspace, October 2017.

[5]Air Navigation Guidance 2017, Guidance to the CAA on its environmental objectives when carrying out its air navigation functions, and to the CAA and wider industry on airspace and noise management, October 2017.

3.3.2 Aviation noise compensation policy

The UK Government's current policy on compensation and insulation is contained within the Aviation Policy Framework and is modified by the UK Government's Airspace Policy and consultation response. The UK Government expects airport operators to offer financial assistance towards insulation for residential properties and noise-sensitive buildings such as schools and hospitals exposed to aviation noise of 63dB$L_{Aeq,16h}$ and above .

Our extension to our Noise Insulation Policy (see **Section 6**) goes beyond these UK Government requirements.

3.3.3 The Independent Commission on Civil Aviation Noise

The Independent Commission on Civil Aviation Noise (ICCAN) was active from November 2018 to September 2021. During this time, ICCAN's role was to create, compile and disseminate best practice to the aviation industry on the management of civil aviation noise and to advise UK Government in this area. ICCAN published several reports and guidance documents relating to aviation noise metrics and measurements; engagement with local communities; links between aviation noise and health; and airport noise insulation schemes.

Aberdeen International Airport, through its membership of Sustainable Aviation, engaged heavily with ICCAN on several of its initiatives including guidance on noise metrics, the ICCAN noise attitudes survey, future of aviation noise management and handling of noise complaints.

We have carefully considered ICCAN's publications in the development of our Noise Insulation Policy, the way we engage with our local communities and other noise mitigation measures. We will continue to engage with the CAA, who adopted the majority of ICCAN's former functions in April 2022 and will take into account any best practice and guidance documentation that they publish.

3.3.4 Thresholds for assessing noise impacts

Long term exposure to environmental noise, such as road, rail and aircraft noise, can lead to adverse impacts on health and quality of life. This is recognised and addressed in UK Government noise policy which aims to avoid, mitigate and minimise the adverse impacts of noise on health, in the context of sustainable development. Aberdeen International Airport shares these objectives and has adopted them as part of our Noise Action Plan.

Thresholds for noise assessment are defined in current UK Government policy in terms of the Lowest Observable Adverse Effect Level (LOAEL). The LOAEL is the level above which adverse effects on health and quality of life can be detected. Current UK Government policy proposes a LOAEL of 51dB$L_{Aeq,16hr}$ based on the most recent large-scale research study in the UK on aircraft noise[6].

A night-time LOAEL of 45dB$L_{Aeq,8hr}$ is also proposed in the UK Government policy, based on the UK Government's current monetisation methodology (known as WebTAG)[7] and the World Health Organization's methodological guidance for estimating the burden of disease from environmental noise[8]. Aberdeen International Airport supports such proposals to assess noise down to these thresholds and we reflect this in our annual noise mapping.

3.4 Local Authorities

Planning obligations under Section 75 of the Town and Country Planning (Scotland) Act 1997, commonly known as Section 75 agreements, are operational conditions to which Aberdeen International Airport is bound. They are focused on site specific mitigations of the impact of development and operations. The planning obligation is a formal document issued and monitored by Aberdeen City Council. We have a requirement to follow a "Night Period Noise Management Plan" as a result of a 2005 Section 75 agreement with Aberdeen City Council. As part of this Noise Action Plan, we are undertaking a review of the agreement in collaboration with the Council to determine whether it would be appropriate to update the noise controls and noise monitoring in line with the latest aircraft noise technology improvements.

[6]CAP1506: Survey of Noise Attitudes 2014: Aircraft Noise and Annoyance, Second Edition

[7]Guide to WebTAG Noise Appraisal for non-experts, Department for Transport, 2017

[8]Methodological guidance for estimating the burden of disease from environmental noise, World Health Organization Regional Office For Europe, 2012

4

Aircraft noise and its effects

4.1 Introduction to aircraft noise

Broadly speaking, aircraft noise can be categorised into two different sources: 'air noise' and 'ground noise'.

4.1.1 Aircraft 'air noise'

Air noise from aircraft is created by aircraft arriving or departing from airports. It is generally caused by air passing over the aircraft's airframe (fuselage, wings and underframe) and noise from the engines. When air passes over the airframe it causes friction and turbulence which results in noise. Engine noise is created by the sound of the engine's moving parts and by the sound of air being expelled from the engines at high speeds. The degree of noise generated varies according to aircraft type and size and the way in which the aircraft is flown.

Aircraft manufactured today are generally much quieter than they have been in the past and ICAO set increasingly stringent certification standards for aircraft noise emissions. As a result, the aircraft fleet operating to and from Aberdeen International Airport is becoming progressively quieter over time. For example, the new A320neo which has started operating at Aberdeen International Airport has been shown to be 2 to 6 dB quieter[9] than the original A320.

Whilst we have no direct control over the aircraft fleet that airlines who fly to and from Aberdeen International Airport choose to operate, we can influence the adoption of quieter aircraft technology through our differential landing charges and wider industry groups such as Sustainable Aviation, an alliance of UK airlines, airports, aerospace manufacturers and air navigation service providers. In this Noise Action Plan we have also committed to undertake a review of our differential landing charges and other methods of incentivisation to determine if it would be viable to introduce additional measures at Aberdeen International Airport.

[9]Measured in Effective Perceived Noise (EPNdB). Source: CAP1869 Quota Count validation study at Heathrow Airport, Civil Aviation Authority 2020

4.1.2 Aircraft 'ground noise'

Ground noise is any noise produced by aircraft whilst on the ground and is often related to the following activities:

- aircraft travelling (taxiing) between the runway and stands (where they park), including queuing;
- aircraft at their stands with their auxiliary power units (APU) or ground power units (GPU) running; and
- engine testing (ground running).

Ground noise impacts tend to be limited to those areas closest to the airfield where they can be more prominent relative to air noise.

Engines need to be tested for safety reasons, and engine running forms part of the maintenance programme for aircraft. We understand that this noise can cause disturbance to residents closest to the airfield and therefore we adopt strict measures to restrict the location, duration and time of day that engine ground running can occur. We do not allow engine ground running above ground idle during the night, unless required due to exceptional circumstances.

We have introduced new actions in this Noise Action Plan to minimise noise from taxiing aircraft and the noise from aircraft APU/GPUs. In addition, we have introduced a new action to undertake noise monitoring of engine ground running to better understand its potential impact on our closest neighbours. We will use the information for this monitoring to review our ground running policies and investigate potential further control measures.

4.2 Measuring aircraft noise

Measuring sound and describing its impacts or effects is an inherently complex process. Noise is defined as unwanted sound and some individuals find noise more disruptive than others. Any attempt to define and measure sound, particularly as a single number, therefore has limitations, and cannot fully capture the spectrum of personal experiences of noise. However, seeking to quantify sound is essential to managing the noise challenge.

There is not a single metric that meets all needs for assessing, quantifying or communicating noise effects and there is a need to use a number of different metrics. For example, some metrics are better correlated with health effects, whilst other metrics can be more useful for communicating and understanding impacts, or for use in performance management monitoring. The key metrics used in the Noise Action Plan are summarised below, but we use a great deal more metrics in quantifying noise at Aberdeen International Airport, for example in relation to our Airspace Change Proposal (ACP) (see **Section 2.6**).

4.2.1 The $L_{Aeq,T}$ (equivalent continuous sound level) metric

There are a range of metrics which are used to describe sound and inform UK Government policy relating to aircraft noise. The most common international measure of environmental noise is the L_{Aeq}, meaning 'equivalent continuous sound level'. This is a measurement of the total sound energy over a period of time. It is easiest to think of this as an average, but important to note that all the sound energy in the time period is captured by this metric.

In the UK, daytime aircraft noise is typically measured by calculating the equivalent continuous sound level in decibels (dB) over 16 hours (07:00 to 23:00) to give a single daily figure (L_{Aeq},16h). Night-time aircraft noise is most typically measured over an eight-hour night period (23:00 to 07:00). The average noise exposure is commonly calculated for the 92-day summer period from 16 June to 15 September. The summer day period is used because people are more likely to have their windows open or be outdoors, and because aviation activity is generally at its busiest during the summer periods. For Noise Action Plans, the Environmental Noise (Scotland) 2006 regulations (as amended) require L_{Aeq} to be calculated over a full calendar year, rather than the 92-day summer period.

Separate assessment for day and night recognises that daytime and night-time noise can lead to quite different effects (principally daytime annoyance and night-time sleep disturbance) and thus it is better to define and measure daytime and night-time noise separately.

4.2.2 The L_{den} (day evening night equivalent sound level) metric

The day evening night equivalent sound level (L_{den}) noise metric is a 24 hour noise metric that applies a 5 dB(A) penalty to noise during the evening (19:00 to 23:00) and a 10 dB(A) penalty to noise during the night (23:00 to 07:00), reflecting relatively higher sensitivity to noise during these periods. L_{den} is frequently used to quantify aircraft noise in Europe, as it was adopted as a common environmental noise indicator for the European Union in the Environmental Noise Directive (2002/49/EC) for road, rail and industrial sources, as well as aircraft noise. It is also a requirement in Scotland to use this metric for strategic noise maps under the Environmental Noise (Scotland) 2006 regulations (as amended). It is typically calculated over a full calendar year.

5

Results of the strategic noise mapping

Table 2 to **Table 6** show the results of the 2021 noise mapping for Aberdeen International Airport. Maps showing the noise contours can also be found in **Appendix A**.

The contours have been modelled by Arup using the Aviation Environmental Design Tool (AEDT)[10] version 3e and Aberdeen International Airport fixed-wing and helicopter movement and radar track data for the 2021 annual period. The modelling was undertaken to meet the standards specified by the Civil Aviation Authority for aircraft noise modelling[11].

The effects of the surrounding topography have been modelled using OS Terrain 50 data from Ordnance Survey. The models have applied the actual modal split that occurred in 2021, with fixed wing aircraft departing to the south for 54% of the time and to the north for 46% of the time; and helicopters departing to the south for 59% of the time and to the north for 41% of the time.

Population and dwelling statistics for each of the noise contours have been estimated by the Scottish Environment Protection Agency (SEPA) using 2021 Addressbase Plus data from Ordnance Survey and mid-2021 population estimates from the National Records of Scotland (NRS).

Population and dwelling counts have been rounded as follows:

- The number of dwellings has been rounded to the nearest 50, except when the number of dwellings is greater than zero but less than 50, in which case the total has been shown as "<50".

- The associated population has been rounded to the nearest 100, except when the associated population is greater than zero but less than 100, in which case the total has been shown as "<100".

After the publication of the draft Noise Action Plan for consultation, SEPA made a minor modification to the methodology of estimating population and dwelling counts, which has resulted in small changes to some of the population and dwelling numbers in the tables below. These changes are minor and do not affect any of the proposals in the NAP. The previous results which have now been superseded are shown in **Appendix D** for information only.

For further information on the noise metrics and how they are derived please refer to **Section 4.2**. In accordance with the Environmental Noise (Scotland) 2006 regulations (as amended), for the Noise Action Plan these metrics are calculated over the full 2021 calendar year, rather than the 92-day summer period.

When comparing the results of the 2021 noise mapping to the 2016 noise mapping undertaken for the previous Noise Action Plan, it is important to note the reduced number of aircraft movements in 2021, primarily due to the ongoing industry recovery following the Covid-19 pandemic. There were approximately 62,900 aircraft and helicopter movements in 2021 compared to approximately 96,200 in 2016. This results in a smaller population within the noise contours, for example there were 16,150 people in the 55dBL_{den} contour in 2016 compared to 4,700 in the same contour in 2021. However it should be noted that this reduction in population exposed has not resulted in any relaxation of our noise management proposals.

[10]AEDT is considered as a recognised and validated aircraft noise model by the Civil Aviation Authority

[11]CAP2091 Policy on Minimum Standards for Noise Modelling, Civil Aviation Authority

Table 2 Aberdeen International Airport 2021 annual day $L_{Aeq,16h}$ contours – estimated areas, population and dwellings

Annual $L_{Aeq,16h}$ (dBA)	Area (km²)	Population	Dwellings
≥ 55	9.5	4,800	2,700
≥ 60	2.8	700	250
≥ 65	1.0	0	0
≥ 70	0.3	0	0
≥ 75	0.1	0	0

Table 3 Aberdeen International Airport 2021 L_{den} contours – estimated areas, population and dwellings

Annual L_{den} (dBA)	Area (km²)	Population	Dwellings
≥ 55	10.2	7,500	4,000
≥ 60	3.2	900	350
≥ 65	1.1	0	0
≥ 70	0.4	0	0
≥ 75	0.2	0	0

Table 4 Aberdeen International Airport 2021 L_{day} contours – estimated areas, population and dwellings

Annual L_{day} (dBA)	Area (km²)	Population	Dwellings
≥ 55	12.4	5,800	3,200
≥ 60	3.4	1,100	450
≥ 65	1.2	0	0
≥ 70	0.4	0	0
≥ 75	0.1	0	0

Table 5 Aberdeen International Airport 2021 $L_{evening}$ contours – estimated areas, population and dwellings

Annual $L_{evening}$ (dBA)	Area (km²)	Population	Dwellings
≥ 55	2.8	800	400
≥ 60	0.9	0	0
≥ 65	0.4	0	0
≥ 70	0.2	0	0
≥ 75	0.0	0	0

Table 6 Aberdeen International Airport 2021 L_{night} contours – estimated areas, population and dwellings

Annual L_{night} (dBA)	Area (km²)	Population	Dwellings
≥ 50	3.2	1,100	450
≥ 55	1.0	0	0
≥ 60	0.4	0	0
≥ 65	0.2	0	0
≥ 70	0.0	0	0

6 Noise management at Aberdeen International Airport

6.1 Community engagement

6.1.1 Airport Flight Tracking Portal

We have recently invested in new aircraft visualisation and modelling software that allows anybody to view near-real-time 3D visualisations of aircraft flying into and out of Aberdeen International Airport. The software provides information such as aircraft type and altitude, and a modelled estimation of noise levels on the ground based on the aircraft type, altitude and mode of operation. We hope that this software will provide accessible and easy to understand information on aircraft operations and noise at Aberdeen International Airport.

The software is available at the following link: **Airport Flight Tracking Portal** and some example images are provided in Figure 2.

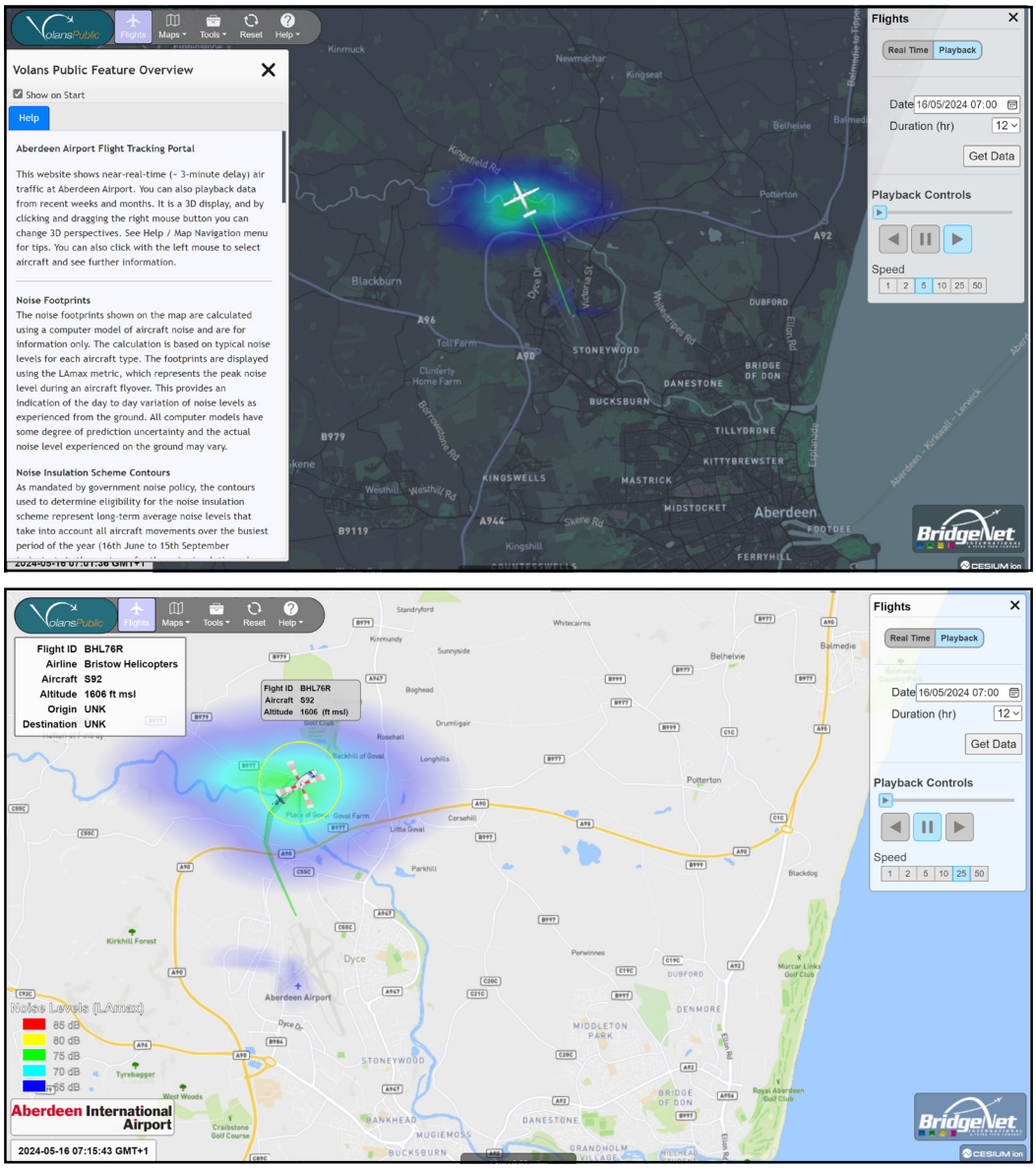


Figure 2: Example screenshots of the flight tracking portal

6.1.2 Noise complaint and enquiries procedure

We provide and maintain frequently asked questions on noise on our dedicated noise webpage (**www.aberdeenairport.com/noise**) through which we log all complaints, liaise with air traffic controllers and helicopter operators where appropriate, and seek to respond to 95% of complaints and enquiries within five working days. We publish our performance against this target at the Airport Consultative Committee and in our Annual Monitoring Reports.

As AGS Airports (Aberdeen, Glasgow and Southampton Airports) we have recently completed a review of our approach to noise complaints and enquiries. We have employed a specialist contractor to review and improve our approach, looking at aspects such as the investigation and understanding of aircraft activity for any specific flight reported to us, alongside simplifying reporting by introducing online forms and visualisation software showing aircraft tracks. We have also reviewed the data that we report externally.

As a result, we are in the process of upgrading our complaints and enquiries process with a new system that will enable improved analysis of trends. This will be used in combination with our noise and track-keeping system to investigate any complaints related to off-track infringements.

6.1.3 ABZ Propeller Fund

The ABZ Propeller Fund, previously known as the Community Trust/Fund, was established to ensure local communities share in the success of Aberdeen International Airport. It provides financial support to community groups and charities that are committed to improving the opportunities, facilities and services available to local people. It also supports volunteering and fundraising by airport staff. The ABZ Propeller Fund makes donations to those projects within close proximity to the airport, in the areas most affected by the airport's operation. Funds come directly from Aberdeen International Airport itself which makes an annual donation to the ABZ Propeller Fund. See **Aberdeen International Airport Propeller Fund** for further details.

6.2 Reduction of noise at source

6.2.1 Quieter aircraft technology

As part of the AGS group, Aberdeen International Airport is represented within Sustainable Aviation, an alliance of UK airlines, airports, aerospace manufacturers and air navigation service providers. AGS group members regularly attend and contribute to the meetings of Sustainable Aviation and work with our partners to promote research and development of even quieter aircraft.

The Sustainable Aviation Roadmap (**https://www.sustainableaviation.co.uk/quieter/**) outlines how the UK aviation industry will limit and, where possible, reduce the impact of aircraft noise. Over the past 50 years, aircraft have reduced their noise output by 75% and this progress continues. Today's aircraft entering service have on average, a noise footprint that is 30-50% that of the aircraft they are replacing thanks to new engine and airframe design and technology.

Whilst we have no direct control over the aircraft fleet that airlines who fly to and from Aberdeen International Airport choose to operate, we can influence the adoption of quieter aircraft technology through wider industry groups such as Sustainable Aviation. We also operate a differential landing charge system during the night whereby quieter aircraft receive discounted charges, providing a financial incentive for airlines to adopt quieter aircraft.

6.2.2 Ground noise

Aircraft need to routinely test their engines to ensure they are operating correctly and safely. The times, location and duration of engine test runs are restricted to minimise noise disturbance. Engine test runs are not permitted between the hours of 22:30 and 06:00 on any night or between 11:00 and 13:00 local time on a Sunday, except in exceptional circumstances. All low power, idle and start/stop tests are permitted on stands and leased area on the East Apron, whilst high power tests are performed on designated areas, to minimise noise to nearby residents.

Ground auxiliary power units (APUs) constitute a source of noise emission, and therefore the use of these is restricted and they cannot be used between 22:30 and 06:00, unless a quieter battery powered ground power unit (GPU) is used. The use of APUs on the East Apron is limited to no more than 45 minutes prior to aircraft departure and no longer than 45 minutes after arrival. Beyond these times a GPU should be used. Finally, the use of APUs for maintenance purposes is only permitted where the task cannot be achieved using a GPU.

We will replace GPUs with fixed electrical ground power (FEGP) at the terminal stands to allow aircraft to take electricity directly from the local grid, helping to further reduce noise by limiting the amount of time that aircraft will need to run their engines at stands.

6.3 Noise abatement operational procedures

6.3.1 Operational procedures

Aberdeen International Airport has a continuing effort to mitigate noise disturbance to residents, and as such our aircraft are measured against a noise mitigation procedure called Continuous Descent Approach (CDA) for arriving aircraft and Continuous Climb Departure (CCD) for departing aircraft. CCDs and CDAs are operating techniques used in fixed wing aircraft that deliver environmental and economic benefits – including noise reduction, reduced fuel burn and reduced fuel costs. Air Traffic Control (ATC) facilitate CCD/CDA at Aberdeen International Airport and they aim to maximise these movements as much as possible. CCD/CDA are affected by various factors (e.g., wind, air pressure, weight of aircraft), so may not always be possible. Targets are set for both movements for airlines to achieve. We have targets of a minimum of 45% of flights achieving CDA and 90% of flights achieving CCD which are consistently met by fixed wing aircraft at the airport. Compliance against these targets is monitored and reported in our **Annual Noise Report**.

6.3.2 Noise and track-keeping

We make use of an aircraft track keeping system which we use to proactively investigate noise complaints. As part of this Noise Action Plan we will review use of this tool for monitoring aircraft routing in accordance with our noise abatement procedures and investigate off track occurrences. We will use this data in discussion with airlines to identify any issues with off-track occurrences and how they can be resolved.

6.3.2 Nght Period Noise Management Plan

We have previously developed a Night Period Noise Management Plan under a Section 75 agreement with Aberdeen City Council. As part of this plan, we annually monitor night-time noise levels from aircraft at strategic community locations surrounding the airport to understand the impacts of night-time noise and inform our noise management plans.

The plan was agreed with the Council in 2005 and, as well as monitoring of night-time noise, includes noise controls that were cutting edge at that time, such as differential landing charges and restrictions based on an aircraft noise performance metric known as the Quota Count (QC). However, since that time, the noise performance of aircraft has continually improved, for example newer and quieter QC values have been introduced. We are therefore undertaking a review of the agreement in collaboration with the Council to determine whether it would be appropriate to update the noise controls and noise monitoring in line with the latest aircraft noise technology improvements.

6.4 Land-use planning and management

6.4.1 Noise Insulation Scheme

We currently operate a Noise Insulation Scheme (NIS) to mitigate noise for communities most affected by aircraft noise, in line with current aviation noise policy. The policy will provide a financial contribution towards noise insulation for residential properties, hospitals and schools within the 92-day summer average 63dB$L_{Aeq,16h}$ contour.

We arrange for assessments to be made of properties applying for the scheme to identify what, if any, insulation would be effective in achieving appropriate noise reduction.

Examples of improvements that could be made are:

- Replacement/enhanced windows
- Acoustic air vents or simple wall mounted ventilation systems
- Loft insulation
- Replacement/enhanced external doors

The management of the NIS is overseen by the Airport Consultative Committee (ACC). Full details of our current Noise Insulation Scheme can be accessed at the following link: **Noise Insulation Scheme**.

As part of this Noise Action Plan we are extending the residential Noise Insulation Scheme, starting in 2025, to properties within the 92-day summer average 60dB$L_{Aeq,16h}$ contour, going beyond aviation noise policy requirements. This would increase the number of eligible properties dramatically as can be seen in **Table 7** and **Figure 3** (using data from 2023).

Table 7: Approximate numbers of residential dwellings eligible for current and proposed NIS

Contour	Approximate number of eligible residential dwellings
63dB$L_{Aeq,16h}$ – current scheme	<5
60dB$L_{Aeq,16h}$ – from 2025 onwards	450

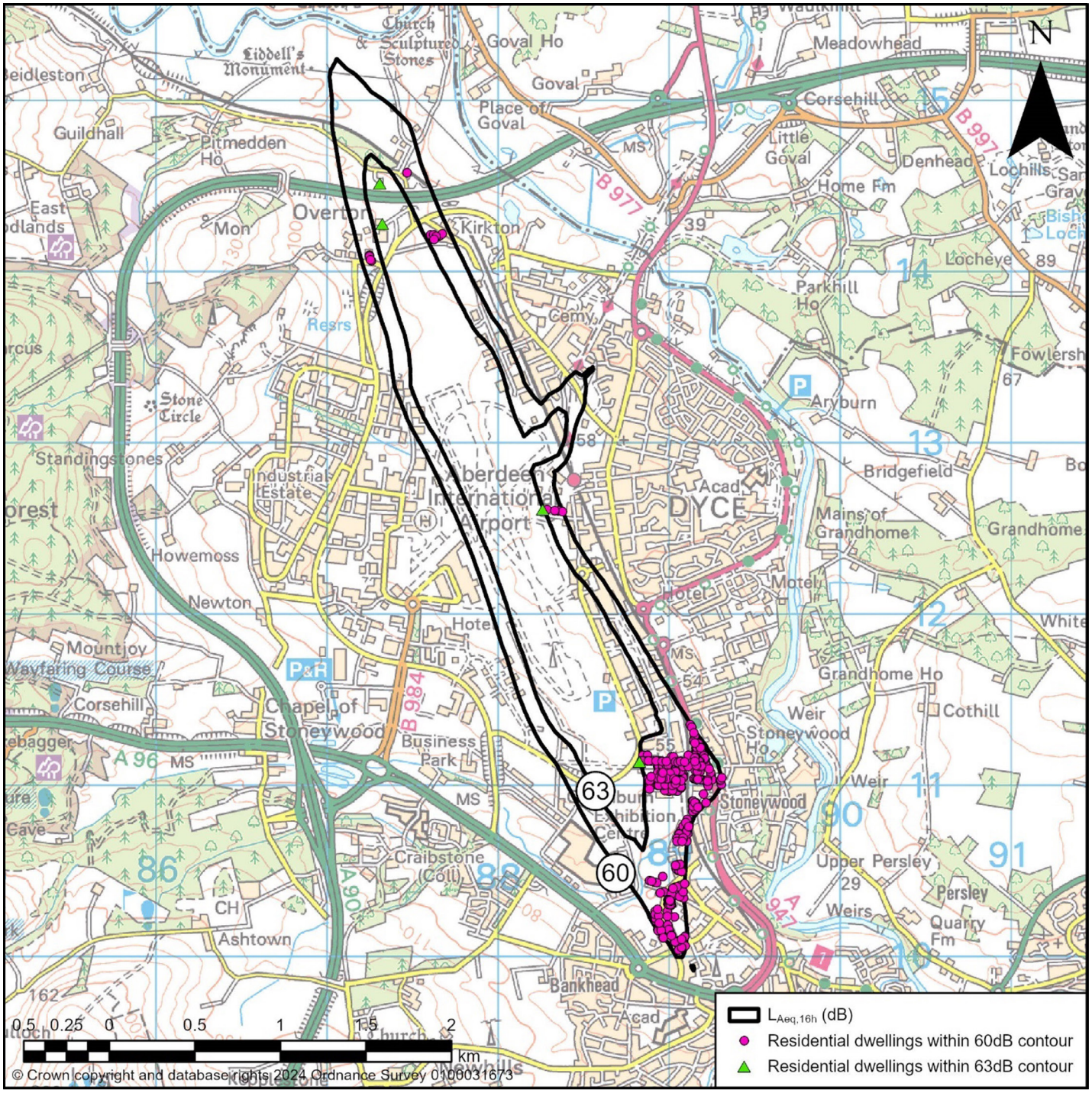


Figure 3: Extent of residential NIS eligibility contours based on 2023 data

6.4.2 Local planning

Aberdeen International Airport engages directly with the local planning authorities to ensure awareness of aircraft operations is considered in the development of noise-sensitive land use. We contribute to local development plans and monitor planning applications within the vicinity of Aberdeen International Airport. We also actively contribute to improving aircraft noise information in local planning policy and seek to influence Government policy where appropriate.

6.5 Operating restrictions

The ICAO Balanced Approach and The Airports (Noise-related Operating Restrictions) (Scotland) Regulations 2019 require us to consider all other aspects of the Balanced Approach (reduction of noise at source; land-use planning and management; noise abatement operational procedures and the additional pillar of community engagement) before implementing any operating restrictions. This ensures that the range of possible mitigation measures is considered in a consistent way with a view to addressing noise impacts in the most cost-effective way.

6.6 Helicopter noise

Aberdeen International Airport provides an important service to the North Sea oil and gas industry by providing helicopter transportation. This service is vital to the local economy and for the safety and wellbeing of offshore workers.

Pilots frequently return to Aberdeen under Visual Flight Rules (VFR) when weather conditions permit. The pilot is required to fly in the safest manner possible taking into account various parameters such as weather conditions and other aircraft whilst remaining within Rules of the Air. These conditions dictate the route the pilot elects to fly. There are also specific regulations around their movements contained within the Air Navigation Order which can be found here.

Safety is paramount. After the last flight of the day, every aircraft which has experienced a flight over water must have a desalination engine wash. This is to remove salt deposits from the engine turbine blades which, if not removed, may cause corrosion and blade deterioration resulting in a loss of power or, worst case, turbine blade failure. The practice of "engine washing" is regulatory and carried out in accordance with the engine manufacturer's maintenance manual.

Sometimes helicopters will disembark passengers and board the next flight immediately and this may be done most efficiently whilst the engines are running.

The direction of take-off for aircraft is dependent on which runway is in operation on the day, and this in turn is dictated by the wind direction. All aircraft must take off and land into the wind which may result in them overflying the city.

Despite the importance of helicopter operations and the constraints described above, we recognise that helicopter noise can be disturbing. We therefore do not allow helicopters to operate during the night-time hours of 22:30 and 06:00, unless required for medical or emergency purposes.

We also operate a Noise Working Group which contains representatives from Aberdeen International Airport, Air Traffic Control, and all helicopter operators. The Noise Working Group meets regularly to highlight areas of concern and share best practice to reduce helicopter noise. Some voluntary operational controls introduced through the Noise Working Group include:

- keeping rotor running times on the ground to a minimum;
- if it is necessary to run the rotors for a long period of time, then consider running at idle;
- expedite climb to 1000 ft on departure and avoid turns over built-up areas early in the morning; and
- avoiding built up areas on VFR approaches, if possible and safe to do so.

6.7 Night-time noise

Night-time flights account for a small proportion of our overall Air Traffic Movements (ATMs). Despite this, night flights continue to be an important part of our business and the socio-economic welfare of the region. Time differences across the world mean that it is very difficult to avoid flying at night and maintain an interconnected global transportation system. Also, a number of Aberdeen's night flights are air ambulance services, which provide a valuable social lifeline for remote communities.

To manage the impact of noise at night, we employ a number of noise controls which manage the impact of night-time noise. These are explained in detail in the previous sections and include:

- a differential landing charge system which incentivises the use of quieter aircraft, with a separate charging system at night;
- a noise insulation scheme which provides financial contributions towards the noise insulation of habitable rooms including bedrooms;

- restrictions on ground-based activities that can take place during the night;
- no helicopter operations 22:30 to 06:00 unless for medical or emergency purposes; and
- a Night Period Noise Management Plan (see **Section 6.3.3**).

6.8 Noise and sustainability

The UK Government confirmed, via the 2017 Air Navigation Guidance, that up to 4000ft the UK Government's environmental priority is to minimise the noise impact of aircraft and the number of people on the ground affected by it. Nonetheless, Aberdeen International Airport is dedicated to reducing carbon impacts as well as noise impacts, noting that there is a careful balance to be struck.

Achieving net zero, supporting our communities and supporting our people are the central pillars of our sustainability strategy. A key component of our future plans will be the ongoing delivery of our

net zero roadmap which was updated during 2023. This identifies the decarbonisation measures we will implement over the coming decade to address our direct emissions while at the same time supporting our

partners with their transition to a more sustainable future. This transition will see us invest in new technology and harness innovation, whether that is making sustainable aviation fuel (SAF) available at our airports, generating our own clean energy on-site or trialling artificial intelligence to enhance the customer experience. These are just some of the projects already underway at AGS.

We have already made significant progress in addressing our environmental impacts with each of our airports achieving carbon neutrality status in 2020. As a group, we have committed to achieving net zero carbon for our direct emissions (Scopes 1 to 2) by the mid-2030s. In addition, AGS is a signatory to Sustainable Aviation's decarbonisation roadmap which was the first national net zero aviation commitment anywhere in the world. We have also joined airports across Europe in signing ACI Europe's NetZero 2050 pledge; a commitment to achieving net zero for the carbon under our control by 2050. These are positive and important first steps towards decarbonising our operations, however, we recognise there is more work to do.

As part of our efforts to accelerate both our own and the sector's net zero ambitions, we have established a series of industry-wide partnerships. With funding from the Scottish Government, we are working with companies including ZeroAvia and easyJet to create a blueprint for airports to support hydrogen powered flight. Aberdeen International Airport is also facilitating in the use of Sustainable Aviation Fuels (SAF) by working with Air BP to supply one million litres of SAF to the airport for all of Bristow's flights to BP's North Sea offshore operations in the UK Continental Shelf.

For more information please see the **AGS Airports sustainability strategy**.

Through AGS Airports, Glasgow Airport is also contributing airport data to support a PhD study undertaken by Arup and Cranfield University to develop a methodology to predict noise and carbon emissions of novel aircraft designs such as electric and hydrogen aircraft.

6.9 Monitoring and reporting progress

To evaluate the effectiveness and delivery of the Noise Action Plan, we have established performance indicators, timescales and targets as outlined within **Section 7**. In addition, we monitor our progress each year through our comprehensive **Annual Noise Report** which is available on our website and contains:

- statistics on the number, type and time of day of aircraft and helicopter movements;
- adherence to Continuous Descent Approach (CDA) and Continuous Climb Departure (CCD) targets;
- number and timing of engine test runs;
- statistics on noise complaints;
- information on the Consultative Committee and Noise Working Group; and
- progress against actions in this Noise Action Plan.

As part of this Noise Action Plan we are undertaking a review of the contents of our Annual Noise Reports, in consultation with local stakeholders, to ensure that the report provides clear and useful information that is valuable to our local communities.

In addition, we will continue to operate our Noise Working Group which contains representatives from Aberdeen International Airport, Air Traffic Control, and all helicopter operators. The Noise Working Group meets regularly to highlight areas of concern and share best practice to reduce noise. We will present key noise issues and report on our progress against this Noise Action Plan to the Aberdeen International Airport Consultative Committee and Noise Working Group as appropriate.

7 Noise Action Plan

Ref	Action	Performance Indicator	Timescales	Estimated number of People Affected
Community Engagement				
1	We will continue to operate our Noise Working Group which contains representatives from Aberdeen International Airport, Air Traffic Control and all helicopter operators. The Noise Working Group meets regularly to highlight areas of concern and share best practice to reduce noise.	Number of meetings and actions/outcomes produced from meetings	Ongoing	Communities within and beyond the 55dBL_{den} contour (estimated >7,500 people)
2	We will continue to publish an Annual Noise Report which will be available on our website and contain: • statistics on the number, type and time of day of aircraft and helicopter movements; • adherence to Continuous Descent Approach (CDA) and Continuous Climb Departure (CCD) targets; • number and timing of engine test runs; • statistics on noise complaints; • information on the Consultative Committee and Noise Working Group; and • progress against actions in this Noise Action Plan	Annual publication	Ongoing	Communities within and beyond the 55dBL_{den} contour (estimated >7,500 people)
3	We will undertake a review of the contents of our Annual Noise Reports, in consultation with local stakeholders, to ensure that the report provides clear and useful information that is valuable to our local communities.	Completion of review and update to Annual Noise Reports	Incorporate feedback into 2024 report. Publish updated report early 2025	Communities within and beyond the 55dBL_{den} contour (estimated >7,500 people)

Ref	Action	Performance Indicator	Timescales	Estimated number of People Affected
4	Following consultation feedback, we will add the following to our Annual Noise Reports: • 92-day summer average daytime and night-time noise contours from the previous summer; and • data on off-track occurrences.	Publish Annual Noise Report with additional information	Published updated report early 2025	Communities within and beyond the 55dBL_{den} contour (estimated >7,500 people)
5	We will update our noise webpage with information on key noise initiatives and strategies.	Update of webpage	Updated webpage to be published by end of 2025	Communities within and beyond the 55dBL_{den} contour (estimated >7,500 people)
6	We will present key noise issues and report on our progress against this Noise Action Plan to the Aberdeen International Airport Consultative Committee and Noise Working Group as appropriate	Number of meetings and actions/outcomes produced from meetings	Ongoing	Communities within and beyond the 55dBL_{den} contour (estimated >7,500 people)
7	We will upgrade our complaints and enquiries process with a new system that will allow improved analysis of trends. This will be used in combination with our noise and track-keeping system to investigate any complaints related to off-track infringements. We will continue to operate a dedicated online noise complaint system. We will log all complaints and seek to respond to all complaints and enquiries within 5 working days. We will publish complaint statistics in the Annual Noise Report and to the Airport Consultative Committee.	Number of enquiries and complaints received and rate of response.	Ongoing	Communities within and beyond the 55dBL_{den} contour (estimated >7,500 people)
8	We will review the accessibility of our complaint system and introduce new ways to contact us with complaints if required.	Completion of review	Review complete by end of 2024	Communities within and beyond the 55dBL_{den} contour (estimated >7,500 people)

Ref	Action	Performance Indicator	Timescales	Estimated number of people affected
9	We will monitor how communities feel about our aircraft track visualisation modelling software and strive to increase the number of users	Software deployed and publicly available. Number accessing the tool. User feedback.	Ongoing	Communities within and beyond the 55dBL_{den} contour (estimated >7,500 people)
10	We will continue to use our ABZ Propeller Fund to provide financial support to community groups and charities that are committed to improving the opportunities, facilities and services available to local people most affected by the airport.	Number of projects funded and value of donation	Ongoing	Communities in close proximity to the airport
Reduction of Noise at Source				
11	We will continue to operate a differential landing charge system during the night whereby quieter aircraft receive discounted charges, providing a financial incentive for airlines to adopt quieter aircraft.	Number of aircraft by Quota Count (QC)	Ongoing	Communities within and beyond the 50dBL_{night} contour (estimated >1,100 people)
12	We will undertake a review of our differential landing charges and other methods of incentivisation to determine if it would be viable to introduce additional measures at Aberdeen International Airport.	Completed review	Review completed by end of 2025	Communities within and beyond the 55dBL_{den} contour (estimated >7,500 people)
13	As part of AGS group we will work with our partners in Sustainable Aviation to achieve the visionary noise goals of FlightPath 2050 which seek to achieve a 65% reduction in perceived noise, or 15dB, from aircraft by 2050 compared to 2000.	Progress against the EU Flightpath 2050 target of 65% reduction in perceived noise, or 15dB, from aircraft by 2050 compared to 2000.	Ongoing	Communities within and beyond the 55dBL_{den} contour (estimated >7,500 people)

Ref	Action	Performance Indicator	Timescales	Estimated number of People Affected
14	We will support the development of Sustainable Aviation's updated Noise Roadmap and will encourage the development of electric and hybrid electric aircraft and consider the noise implications of future aircraft technology.	Sustainable Aviation targets.	Ongoing	Communities within and beyond the 55dBL_{den} contour (estimated >7,500 people)
15	We will continue to enforce our policy on aircraft test runs. We will investigate any complaints received from ground running activity and revisit our policies if appropriate.	Number, location and duration of engine runs.	Ongoing	Communities in close proximity to the airport
16	We will undertake noise monitoring of engine ground running to better understand its potential impact on our closest neighbours. We will use the information for this monitoring to review our ground running policies and investigate potential further control measures.	Monitoring complete	Monitoring to be undertaken in 2025	Communities in close proximity to the airport
17	We will replace diesel powered ground power units (GPUs) with fixed electrical ground power (FEGP) at the terminal stands to allow aircraft to take electricity directly from the local grid, helping to reduce noise by limiting the amount of time that aircraft will need to run their engines at stands.	Number of GPUs replaced	Targets will be set following Sustainability Strategy Review	Communities in close proximity to the airport
18	We work with our airlines to encourage and assist them in to undertake reduced engine use for taxiing and towing to reduce noise emissions from aircraft on the airfield.	Discussions with airlines	Discussions with airlines	Communities in close proximity to the airport

Ref	Action	Performance Indicator	Timescales	Estimated number of people affected
Noise Abatement Operational Procedures				
19	We will use our new aircraft track keeping systems to proactively monitor fixed wing aircraft routing and any off-track occurrences. We will use this data in discussion with airlines to identify any issues with off-track occurrences that can be resolved. We will implement a process for fining airlines for off-track occurrences and distribute fines to the ABZ Propeller Fund.	Number of off-track occurrences and fines raised	Ongoing with fines to be introduced by end of 2025	Communities within and beyond the 55dBL_{den} contour (estimated >7,500 people)
20	We will continue to implement best practice on aircraft noise management according to guidance that was published by the Independent Commission on Civil Aviation Noise whilst the commission was still active. We will review and implement any future best practice guidance issued by the Civil Aviation Authority where appropriate.	Number of guidance documents reviewed	Ongoing	Communities within and beyond the 55dBL_{den} contour (estimated >7,500 people)
21	We will continue with our Airspace Change Proposal. As part of this we will continue to assess the noise impacts of any proposed changes, in line with the CAA's Airspace Change Process and our agreed airspace design principles.	Progression through Airspace Change gateways	Ongoing	Communities within and beyond the 55dBL_{den} contour (estimated >7,500 people)
22	We will promote adherence to the Arrivals Code of Practice (ACOP) and in particular the achievement of Continuous Descent Approaches (CDA) and Continuous Climb Departure and (CCD) targets where possible through forums such as Flight Ops Safety Committee (FLOPSC) and other communication events. We will monitor and report compliance with these targets in the Annual Noise Report.	Percentage of flights achieving CDA and CCD compared to targets	Ongoing	Communities within and beyond the 55dBL_{den} contour (estimated >7,500 people)

Ref	Action	Performance Indicator	Timescales	Estimated number of People Affected
23	We will continue to annually monitor night-time aircraft noise in accordance with the Night Period Noise Management Plan as agreed with Aberdeen City Council in our Section 75 agreement.	Annual monitoring	Ongoing	Communities within and beyond the 50dBL_{night} contour (estimated >1,100 people)
24	We are undertaking a review of the Night Period Noise Management Plan in collaboration with the Council to determine whether it would be appropriate to update the noise controls and noise monitoring in line with the latest aircraft noise technology improvements.	Completion of review	Review complete by end of 2025	Communities within and beyond the 50dBL_{night} contour (estimated >1,100 people)
Land-use Planning and Management				
25	We will actively contribute to improving aircraft noise information in local planning policy and seek to influence policy where appropriate. We will encourage the use of good acoustic design to avoid and minimise adverse impacts arising from the development of new noise sensitive buildings and encourage the adoption of the principles advocated by the Professional Practice Guidance: Planning & Noise – New Residential Development.	Number of new development plans reviewed and number of responses issued to local planning authorities	Ongoing	Communities within and beyond the 55dBL_{den} contour (estimated >7,500 people)
26	We will continue to implement our current Noise Insulation Policy to mitigate noise for residents and noise sensitive buildings most affected by aircraft noise in line with current aviation noise policy.	Number of eligible properties	Annual review	Communities within the 92-day summer 63dB$L_{Aeq,16h}$ contour (estimated 10 people)
27	We will extend our residential Noise Insulation Policy to mitigate noise for a greater number of residents most affected by aircraft noise, going beyond current aviation noise policy.	Number of eligible properties	Extended Noise Insulation Scheme to open in 2025	Communities within the 92-day summer 60dB$L_{Aeq,16h}$ contour (estimated 1,000 people)

Ref	Action	Performance Indicator	Timescales	Estimated number of People Affected
Operating Restrictions				
28	Our Noise Action Plan is consistent with the ICAO Balanced Approach and The Airports (Noise-related Operating Restrictions) (Scotland) Regulations 2019, which requires operating restrictions to be considered only after other measures of the Balanced Approach have been exhausted and only where it is cost effective to do so. We will continually review the effectiveness of our mitigation measures in the context of the balanced approach to ensure that mitigation is considered in a consistent way with a view to addressing noise impacts in the most cost-effective way	Tracking of Noise Action Plan and mitigation measures.	Ongoing	n/a

7.1 Estimating the reduction in the number of people affected

The Environmental Noise (Scotland) Regulations 2006 require that Noise Action Plans must meet the requirements in Annex V of the Environmental Noise Directive (EC Directive 2002/49) which includes the requirement that each action plan should "contain estimates in terms of the reduction of the number of people affected (annoyed, sleep disturbed, or other)."

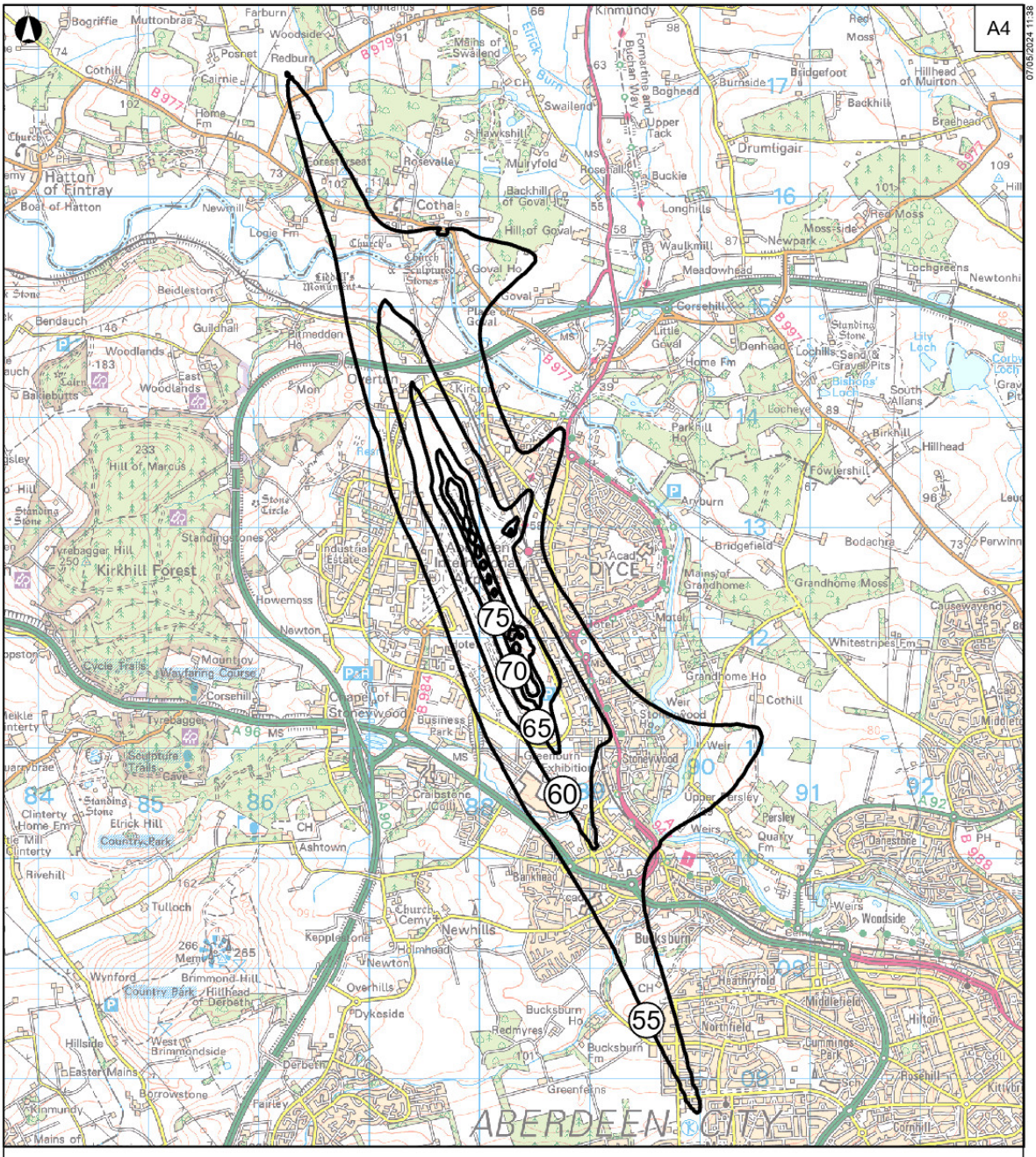
The extended noise insulation scheme (action 27) will reduce annoyance and sleep disturbance for those who are eligible and take part in the scheme. For example, considering the latest year of modelled data for the 92-day summer (2023), extending the noise insulation scheme will result in the eligibility increasing from approximately 10 people to approximately 1,000 people, resulting in a reduction in annoyance and sleep disturbance for up to 990 additional people.

Actions 11 to 13 will drive the industry to continue to improve aircraft noise performance with a Sustainable Aviation target of 15dB reduction from aircraft by 2050 compared to 2000. This equates to a reduction in the percentage of highly annoyed people by approximately 29% and a reduction in the percentage of highly sleep disturbed people by approximately 20%[12].

[12] Reductions estimated using Formula 6 and Formula 9 of Commission Directive (EU) 2020/367 amending Annex III to the Environmental Noise Directive (EC Directive 2002/49)

A1 Appendix A

Noise contour maps



$L_{Aeq,16hr}$ (dB)

Coordinate System:

Rev	Date	By	Chkd	Appd	Authd
P01	02/05/24	RL	CS	DH	DH

Kilometers
0 0.75 1.5 3

ARUP
13 Fitzroy Street
London W1T 4BQ
Tel +44 20 7636 1531
www.arup.com

Client
AGS Airports Limited

Project Name
Aberdeen Airport Noise Action Plan

Drawing Title
2021 annual average day $L_{Aeq,16hr}$
55-75 dB contours
Actual runway modal split
Fixed wing: 54% South / 46% North
Helicopter: 59% South / 41% North

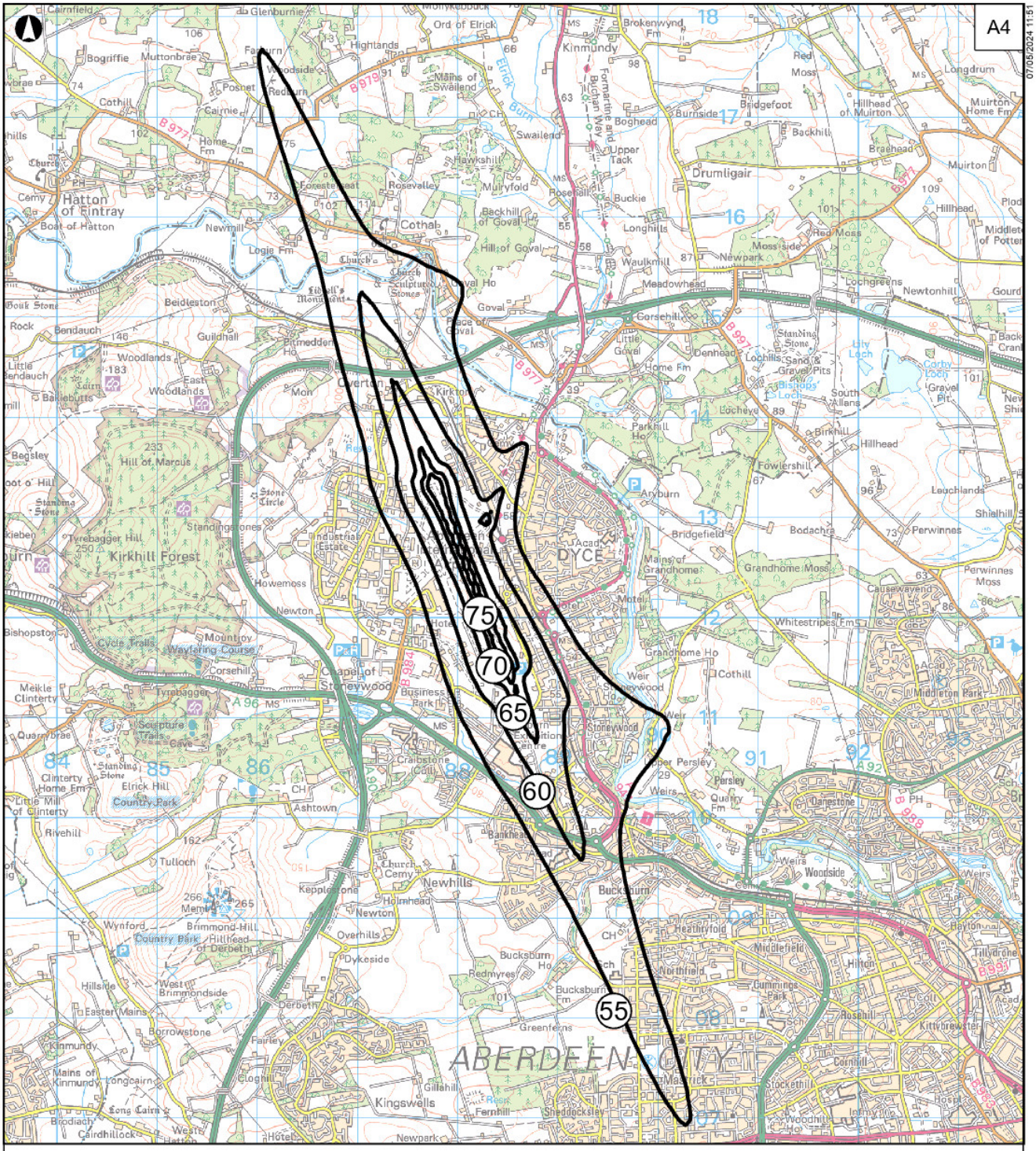
Scale at A4
1:75,000

Suitability
Issue

Project Number
268771-00

Rev
P01

prx



L_{den} (dB)

Coordinate System:

Rev	Date	By	Chkd	Appd	Authd
P01	02/05/24	RL	CS	DH	DH

Kilometers
0 0.75 1.5 3

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Client
AGS Airports Limited

Project Name
Aberdeen Airport Noise Action Plan

Drawing Title
2021 annual L_{den} 55-75 dB contours
Actual runway modal split

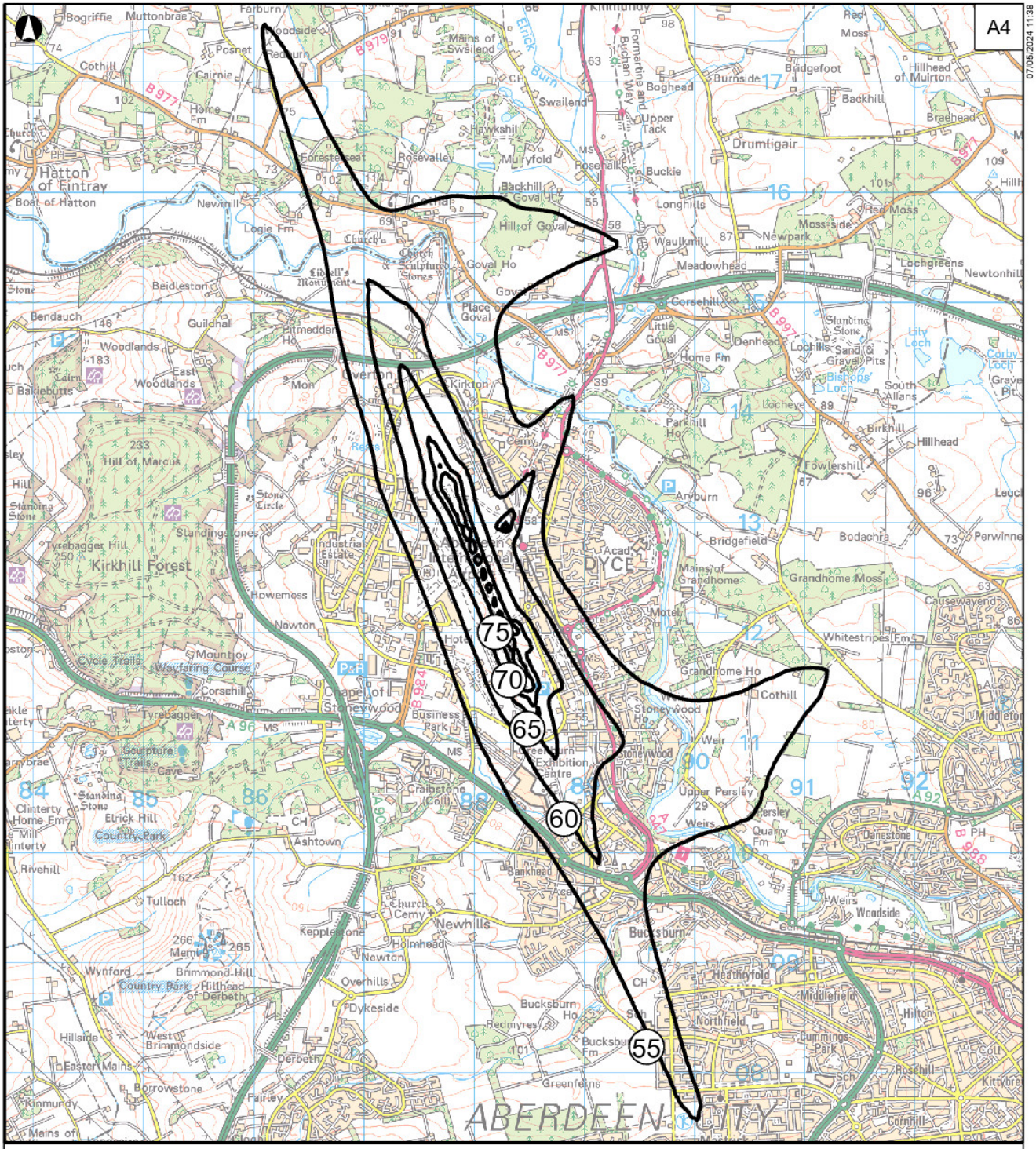
Fixed wing: 54% South / 46% North
Helicopter: 59% South / 41% North

Scale at A4
1:65,000

Suitability
Issue

Project Number	Rev
268771-00	P01

prx



L_{day} (dB)

Coordinate System:

Rev	Date	By	Chkd	Appd	Authd
P01	02/05/24	RL	CS	DH	DH

Kilometers
0 0.5 1 2

ARUP

13 Fitzroy Street
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Client
AGS Airports Limited

Project Name
Aberdeen Airport Noise Action Plan

Drawing Title
2021 annual day L_{day} 55-75 dB contours
Actual runway modal split
Fixed wing: 54% South/ 46% North
Helicopter: 59% South/ 41% North

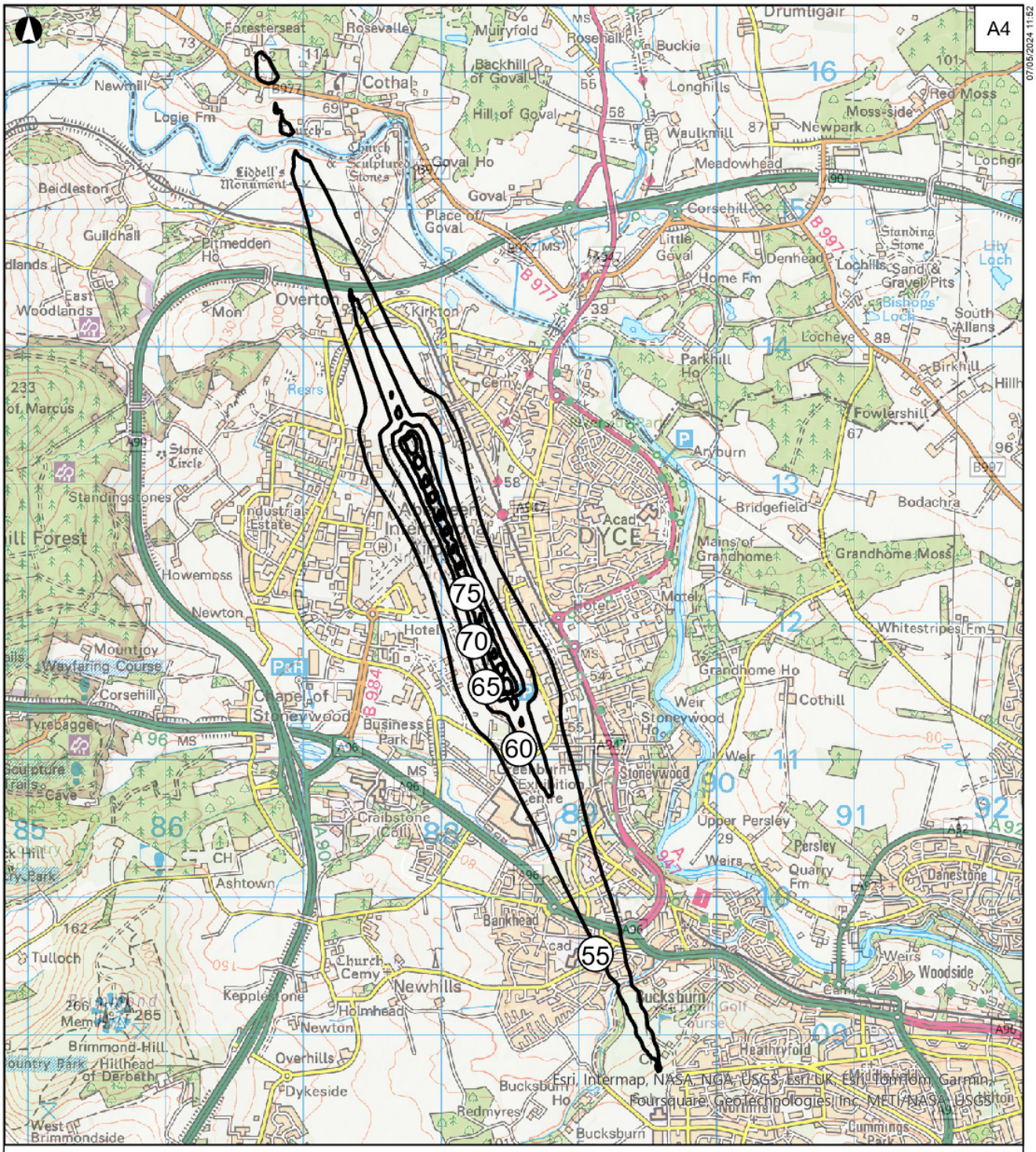
Scale at A4
1:50,000

Suitability
Issue

Project Number
268771-00

Rev
P01

prx



$L_{evening}$ (dB)

Coordinate System:

Rev	Date	By	Chkd	Appd	Authd
P01	02/05/24	RL	CS	DH	DH

Kilometers
0 0.5 1 2

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Client
AGS Airports Limited

Project Name
Aberdeen Airport Noise Action Plan

Drawing Title
2021 annual evening $L_{evening}$ 55-75 dB contours
Actual runway modal split
Fixed wing: 54% South / 46% North
Helicopter: 59% South / 41% North

Scale at A4
1:40,000

Suitability
Issue

Project Number	Rev
268771-00	P01

prx

L_{night} (dB)

Coordinate System:

Rev	Date	By	Chkd	Appd	Authd
P01	02/05/24	RL	CS	DH	DH

Kilometers

0 0.5 1 2

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www.arup.com

Client
AGS Airports Limited

Project Name
Aberdeen Airport Noise Action Plan

Drawing Title
2021 annual night L_{night} 50-70 dB contours
Actual runway modal split
Fixed wing: 54% South / 46% North
Helicopter: 59% South / 41% North

Scale at A4
1:40,000

Suitability
Issue

Project Number	Rev
268771-00	P01

prx

B1

Appendix B

Financial Information

Type	Description	Estimated Cost (annual)
Staff	Environment, communications and Airside Operations team. Director's time. AGS central team support	£115,000
Computer/Software	Noise Track Keeping Software, noise footprint software, website development and computer equipment	£65,000
Research, Events and Subscriptions	Research on noise and operational performance matters. Venue costs and expenses. Airport Consultative Committee, other noise meetings. Research project support. Subscriptions.	£12,500
Consultancy	Preparation of annual noise contours and support on implementation of noise improvement measures	£30,000
Publications	Airport noise literature and Noise Action Plan.	£25,000

C1 Appendix C

Consultation responses

This Noise Action Plan was initially developed in consultation with the Aberdeen International Airport Consultative Committee (AIACC) and was then subject to an eight-week public consultation.

The public consultation ran from 12th August to 6th October 2024. The public consultation utilised a variety of methods to engage stakeholders and raise awareness. Flyers were distributed to approximately 450 properties near the airport, emails were sent to stakeholders who had engaged with the airport on other matters, and a consultation website was launched on the Commonplace platform where specific questions were asked about the proposals. Members of the public and stakeholders were also able to engage with the consultation via post. The consultation was advertised on social media and awareness was raised by press releases to local media. Two webinars were held by the airport and these sessions provided an opportunity for stakeholders to raise questions on the draft Noise Action Plan to airport representatives and noise specialists.

A total of 81 responses were received. This appendix presents details of the comments received and our responses, including where we have made changes to the Noise Action Plan as a result.

The following questions were asked during the consultation through the Commonplace platform and by post:

1. **Noise Insulation Scheme**

   a) What do you think about the proposal to extend the eligibility criteria for the Noise Insulation Scheme from 63dB $L_{Aeq,16hrs}$ to 60dB $L_{Aeq,16hrs}$?

   b) Would you like to provide any further feedback about the Noise Insulation Scheme?

2. **Noise management and reporting**

   a) What else would you add to the Annual Noise Report, if anything?

   b) Is there anything else you think we should share on the noise section of the website?

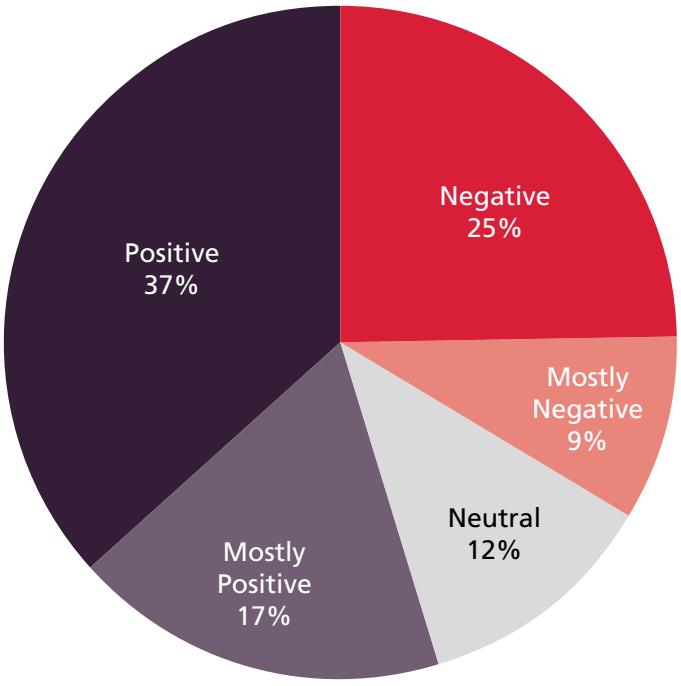
3. **Noise Action Plan table**

   a) Overall, what do you think about the draft Noise Action Plan?

   b) Would you like to provide any further feedback about the draft Noise Action Plan?

A summary of the responses to question 1a and 3a is shown in Figure C1. This shows that 54% of respondents viewed the proposals to extend the noise insulation scheme, and the proposals in the Noise Action Plan, to be mostly positive or positive, with only 34% of respondents considering the proposals to be mostly negative or negative.

Figure C1: Summary of responses to question 1a and 3a



The following table shows all the responses received (verbatim). To avoid repetition, the comments have been grouped together by common themes, however the relevant consultation question that each comment was in response to has also been provided for context.

Consultation question	Comment (verbatim)	Airport response
Theme – Noise insulation scheme - eligibility		
Would you like to provide any further feedback about the Noise Insulation Scheme?	My property is now included in the new parameters which would make a huge difference to my property My property was previously borderline but now included in the new area This sounds reasonable. There are no known MoD properties or infrastructure that would be affected by this porposed expansion. This is nowhere near enough. I live on the flight path in the AB15 area and the noise of the freight flight in the middle of the night is enough to wake my entire household. How can you be so uneducated to think the only issue is for properties right next to the airport. Find someone with a brain cell please. Think it should include a wider area. I'm in AB228NY and get disturbed by helicopters most mornings from 6.30am to well after 9, it's constant! What about Northfield we can see the pilots coming over our houses when approaching the runway The flats on Farburn Place require further noise proofing and something needs to be done about the aircraft fuel fumes coming into the flats. However to compensate (indirectly) maybe the level should be reduced further from 60 to 55? To read fully takes a lot of time and intelligence to fully comprehend the scheme should have more concise bullet points as well as lengthy paragraphs etc. I hope to fall within the new 60db noise contour.	We are pleased to say that the majority of responses regarding the extension of the eligibility for our Noise Insulation Scheme have been positive and so we will implement the extension of the Noise Insulation Scheme for residential properties from 63dB$L_{Aeq,16h}$ to 60dB$L_{Aeq,16h}$. Some respondents have requested that the scheme be extended to specific community areas, however, it is important to note that the eligibility of the scheme is based on noise exposure, in line with UK Government aviation noise policy, rather than including or excluding particular community areas. **Change made to NAP throughout to confirm that the eligibility for the scheme will be extended.**
What do you think about the proposal to extend the eligibility criteria for the Noise Insulation Scheme from 63dB $L_{Aeq,16hrs}$ to 60dB $L_{Aeq,16hrs}$?	Strongly Support (Doesn't extend far enough - to cover those impacted by engine testing (ground running) and helicopters).	

Consultation question	Comment (verbatim)	Airport response
Theme – Helicopters		
Would you like to provide any further feedback about the Noise Insulation Scheme?	We have helicopters coming over very low Pitmedden mews our windows vibrate with certain flights Probably have alrrady written my parts: - Helicopters running blades the entire time they fly or are on the ground - they don't stop! - Also 6AM constant noise from helicopters on busy change over days.	Aberdeen International Airport provides an important service to the North Sea oil and gas industry by providing helicopter transportation. This service is vital to the local economy and for the safety and wellbeing of offshore workers. However, we recognise that helicopter noise can be disturbing. We therefore do not allow helicopters to operate during the night-time hours of 22:30 and 06:00, unless required for medical or emergency purposes. We also operate a Noise Working Group which contains representatives from Aberdeen International Airport, Air Traffic Control, and all helicopter operators. The Noise Working Group meets regularly to highlight areas of concern and share best practice to reduce helicopter noise. We have added further information on helicopter noise management to a new **section 6.6** in this Noise Action Plan. **Change made to NAP – new section 6.6 on helicopter noise.**
What else would you add to the Annual Noise Report, if anything? Is there anything else you think we should share on the noise section of the website?	I live in the Bridge of Don. Helicopters constantly fly over the houses and you have to stop speaking due to the noise when the do. Some seem lower. What happened to no flying over residential properties? Helicopter noise is dreadful. Fly so low at all hours. Shakes house.	
Would you like to provide any further feedback about the draft Noise Action Plan?	Doesn't mention helicopters specifically. They are dreadful. Why no reference to rotary wing Aircraft ! Would like more consideration to be given to Helicopter noise. Aircraft taking off and landing has never been an issue or noise problem - I've lived here for 13 years.	

Consultation question	Comment (verbatim)	Airport response
Theme – Ground Noise		
Would you like to provide any further feedback about the Noise Insulation Scheme?	I believe there should be a re-assessment for Farburn Terrace properties. These have continuous exposure to helicopter noise, including the grounding of helicopters for boarding and unboarding. Whilst one section of the airport has a sound barrier (joint to Scottish Air Ambulance hanger), the other part adjacent to Offshore Helicopter Services Terminal has no such sound barrier and as result it effectively renders the sound barrier in place useless. All noise comes from the helicopters next to the Offshore Helicopter Services terminal. I would argue that the sound exposure from there to resident nearby (no. 5 -17) would exceed the noise levels as described and should therefore be included in the proposal. Tick box...you are out of control related to ground noise and the helicopters idling all day long… Rubbish! You don't even carrying proper noise surveys! - Ground running testing - done adjacent to Dyce railway station can go on beyond 11PM at night. So loud in Don Place that all windows and vents must be closes. Aircraft still sit on the ground running on Sundays after 11am. The times should be changed during the week to after 7am. Move the ground running testing (it is small local airline I think) that parks up beside the railway station. Can this 'full speed' testing not be done away from all the main residential areas of Dyce? I have frequently phoned to complain about this. You monitoring NOTHING! I previously proved the point that you are completely out of control related to the ground noise! You are required to carry consultation... and this is it. You are NOT interested to do or change anything! Running enines on full speed is terrible (been told it is to allow these flights to take off and not be concelled - hence. its happening late into the evening. Please explain why hellicopters leave rotar blades on all the time from dropping off passengers to picking up those going offshore - fuel wasrage etc + noise.	We operate a number of noise management controls relating to the ground running of aircraft and helicopters, these are summarised in **Section 6.2.2** of this Noise Action Plan. We have also included a new action in this Noise Action Plan (action 16) to undertake noise monitoring of engine ground running to better understand its potential impact on our closest neighbours. We will use the information for this monitoring to review our ground running policies and investigate potential further control measures.

Consultation question	Comment (verbatim)	Airport response
Theme – Flightpaths		
Would you like to provide any further feedback about the Noise Insulation Scheme?	low flying aircraft and helicopters are routed over Rubislaw quarry area and fly late at night. Why?	Any changes to flightpaths require an airspace change proposal. The airspace change proposal is subject to separate consultation and consenting process. Please refer to **Section 2.6** for further detail.
What else would you add to the Annual Noise Report, if anything?	Minimising Helicopter noise by removing flight paths above housing/congested areas. This is important but nothing is ever done about it. Assessment and defined action plan to reduce take off and landing over Aberdeen City, rather than to the North The UK Government confirmed, via the 2017 Air Navigation Guidance, that up to 4000ft the UK Governments environmental priority is to minimise the noise impact of aircraft and the number of people on the ground affected by it. Our community, Potterton, experiences unnecessary noise disturbance from 7am everyday. There is an easy solution to reducing this noise impact by flying slightly north or slightly south rather than using the villages as a marker/flight line. My daughter has sensory difficulties and has to cover her ears or gets distressed when helicopters are flying too low. It doesn't seem fair when there are other options and routes available at this point. How can you have a steering group that is not discussing or finding solutions to simple issues.	
Is there anything else you think we should share on the noise section of the website?	Minimising Helicopter noise by removing flight paths above housing/congested areas. This is important but nothing is ever done about it. Assessment and defined action plan to reduce take off and landing over Aberdeen City, rather than to the North	
Would you like to provide any further feedback about the draft Noise Action Plan?	Specific plans to reduce the take off and landing routes directly over Aberdeen City, as opposed to suitable routes to the North	

Consultation question	Comment (verbatim)	Airport response
Theme – Annual noise report		
Is there anything else you think we should share on the noise section of the website?	More than just helicopters, aircraft deviating from their routes and military aircraft Specific details of noise from rotary wing aircraft	The Annual Noise Report includes statistics on the number of helicopter operations, the types of helicopters that operate at the airport, the times of day of helicopter operations, helicopter air testing and helicopter complaint statistics. We have also added a new section to this Noise Action Plan specifically to address helicopter operations and noise. We have added a new action to report off-track occurrences in our Annual Noise Report. **Change made to NAP – new section 6.6 on helicopter noise** **Change made to NAP – new action 4**
What else would you add to the Annual Noise Report, if anything?	More statistics on aircraft noise to either make changes to flight plans or schedule for landing/take off Starts with the peak hours where we have more noise, and peak seasons where more air traffic is expected Break down of noise from helicopters v fixed wing. My opinion is that helicopters are much noisier. Prevailing weather changes exposure eg wind direction and cloud cover Specific details of noise from rotary wing aircraft	

Consultation question	Comment (verbatim)	Airport response
Theme – Consultation		
Would you like to provide any further feedback about the draft Noise Action Plan?	The first webinar q&a was interrupted by background people talking - that isn't too professional?	We recognise the importance of engagement with affected communities and have consulted on our proposals widely through the public consultation which ran from 12th August to 6th October 2024. The public consultation utilised a variety of methods to engage stakeholders and raise awareness. Flyers were distributed to approximately 450 properties near the airport, emails were sent to stakeholders who had engaged with the airport on other matters, and a consultation website was launched on the Commonplace platform where specific questions were asked about the proposals. Members of the public and stakeholders were also able to engage with the consultation via post. The consultation was advertised on social media and awareness was raised by press releases to local media. Two webinars were held by the airport and these sessions provided an opportunity for stakeholders to raise questions on the draft Noise Action Plan to airport representatives and noise specialists.
Is there anything else you think we should share on the noise section of the website?	Is this what you are calling a survey? This is not user friendly or very accessible listen to your customers I kept on having to refresh my cookie selections which was painful and unnecessary? Anyone might think the airport was doing that deliberately to discourage people? A survey for local residents to complete	

Consultation question	Comment (verbatim)	Airport response
Theme – Noise insulation scheme - extension not required		
Would you like to provide any further feedback about the Noise Insulation Scheme?	If the occupiers have bought, or rented, the houses anytime up to recently then they had advanced knowledge of the noise levels. If the sounds of aircraft were a problem they would not have moved there. People who live near the airport must expect the noise. If you choose to live close to an airport you choose to accept aviation noise. Money should not be wasted on this, if people choose to live next to an airport then they have to be prepared for aviation noise! People are aware of the airport when moving to the area. I think the money would be better spent enhancing the airport and/or charitable work.	We are pleased to say that the majority of responses regarding the extension of the eligibility for our Noise Insulation Scheme have been positive and so we will implement the extension of the Noise Insulation Scheme for residential properties from 63dB$L_{Aeq,16h}$ to 60dB$L_{Aeq,16h.}$ **Change made to NAP throughout to confirm that the eligibility for the insulation scheme will be extended.**

Consultation question	Comment (verbatim)	Airport response
Theme – Noise modelling		
Would you like to provide any further feedback about the Noise Insulation Scheme?	The information Is incorrect to the location of noise pollution within local areas. Aircraft fly at different levels and can fly very low especially the helicopters in cold and winter weather. The maps of sound I'd looking at a summer weather forecast of a hot country not the weather of Aberdeen please update information	Given the large area over which noise exposure can occur, the variation in aircraft timetables over the year, and the difference in the direction that aircraft fly depending on changes in wind direction, it is not possibly to accurately quantify aircraft exposure over the large geographic area covered by the noise contours for the entire 92-day summer period as required by UK Government aviation noise policy or the full year as required for the Noise Action Plan regulations. The industry accepted approach, as set out by the Civil Aviation Authority (CAA), is therefore to model the aircraft noise. It is important to note that the noise model used (the Aviation Environmental Design Tool) is recognised as a validated noise model by the CAA, and the methodology used to generate Aberdeen International Airport's noise models has been approved by the CAA and involves the use of local radar track data to ensure that the model accurately represents how aircraft fly at Aberdeen International Airport. The Noise Action Plan has been informed by the strategic noise mapping assessment.
Would you like to provide any further feedback about the draft Noise Action Plan?	Is there a risk assessment? Risk assessments should always drive action plans. There must be some danger or risk where is that fully defined? Noise exposure was quoted as averages however in industry (HSE) there are also short term exposure limits? These should be listed for averages. Ground staff Iâ€™m sure wear hearing protectors. Historically exposure limits get more stringent with time and as technology and understanding improves.	
Is there anything else you think we should share on the noise section of the website?	Rubbish! You just "ticking the boxes" you don't even carry any decent noise survey you just "calculate" them...pointles!	

Consultation question	Comment (verbatim)	Airport response
Theme – Night-time noise		
What else would you add to the Annual Noise Report, if anything?	There should be changes made to the times that aircraft are allowed to start in the morning. 7:30am would be a lot better for local residents.	Night-time flights account for a small proportion of our overall Air Traffic Movements (ATMs). Despite this, night flights continue to be an important part of our business and the economic welfare of the region. Time differences across the world mean that it is very difficult to avoid flying at night and maintain an interconnected global transportation system. Also, a number of Aberdeen's night flights are air ambulance flights , and provide a valuable social lifeline for remote communities. To manage the impact of noise at night, we employ a number of noise controls which manage the impact of night-time noise. To provide further clarity, these have been grouped together in a new **Section 6.7** of the NAP. This includes the Night Period Noise Management Plan which was introduced in 2005 when the changes to night-time operating hours were introduced. We have also included a new action to provide updated night-time noise contours each year in our Annual Noise Report. **Change made to NAP – new section 6.7 on night-time noise.** **Change made to NAP – new action 4**
Is there anything else you think we should share on the noise section of the website?	reduction of night flights after22.30hrs	
Would you like to provide any further feedback about the draft Noise Action Plan?	There was previously a blanket ban on planes landing after was it 11pm? This should be re-instated.	
Would you like to provide any further feedback about the draft Noise Action Plan?	Aberdeen Airport should have more flights and be a 24 hour flying operation	

Consultation question	Comment (verbatim)	Airport response
Theme – Other environmental issues		
Would you like to provide any further feedback about the draft Noise Action Plan?	Aircraft emissions was mentioned as part of noise?? Emissions are a separate environment problem as these cause air quality issues exhaust fumes do contain toxins just like car exhausts.	The scope of this Noise Action Plan covers noise and does not address other environmental issues such as carbon emissions and air quality. However we recognise that these issues are linked and have provided information on AGS' sustainability strategy in **Section 6.8** of the Noise Action Plan.
Theme – Airspace change consultation		
Is there anything else you think we should share on the noise section of the website?	We weren't notified about the acp consultation period?!	The consultation was advertised via leaflet drops, through the airport webpage and social media. The consultation strategy was approved by the Civil Aviation Authority and can be found at the following link: **https://airspacechange.caa.co.uk/documents/download/6621**
Theme – Biodiversity		
What else would you add to the Annual Noise Report, if anything?	There is a colony of ravens rookery (or a collection of large blackbirds - Im not an ornithologist) in Stoneywood Primary school has a survey been done wrt to them and also during the nesting season? Maybe for next round?	The impact of noise on biodiversity was assessed as part of our Airspace Change Proposal, following a Habitats Regulation Assessment screening process set out by the Civil Aviation Authority. The assessment concluded that there are no likely significant effects on any European Sites (which includes Special Protection Areas for birds). For more information please refer to the Final Options Appraisal which can be found at the following link: https://airspacechange.caa.co.uk/documents/download/7313

Consultation question	Comment (verbatim)	Airport response
Theme – Fines		
Would you like to provide any further feedback about the draft Noise Action Plan?	Monies collected from fines should go toward improving the airport experience I suggest lowering or removing the dropoff car fee. If fines increase then air ticket prices will increase?	At present the proposal is to implement a process of fines for off-track occurrences, but that process has yet to be developed. The process for fines will be agreed through future engagement led by the airport with NATS En-Route PLC, airlines and Air Traffic Controllers.
Theme – General negative comment		
Would you like to provide any further feedback about the Noise Insulation Scheme?	The area is unfortunately impacted by factors such as air pollution, compromised air quality, and proximity to a helipad, train line, main road, and industrial area, which may make it less desirable for potential residents seeking a tranquil and healthy living environment.	We recognise that aircraft noise can be an important issue for local communities. Although the noise generated by an airport cannot be eliminated, we are conscious that it is important to reach a balance that allows growth in a sustainable manner whilst also enhancing the economic and social benefits to the region, and ultimately remaining a good neighbour to local residents. We have reviewed our previous action plan and introduced updates and enhancements to our current actions to build upon the progress we have made over the past five years working proactively and in collaboration with a variety of stakeholders and local communities. We believe this Noise Action Plan demonstrates our commitment and the importance that the airport places on the issue of noise and our aim to minimise the impact of noise from our airport as far as reasonably practicable.
Would you like to provide any further feedback about the draft Noise Action Plan?	What about supplying courtesy noise cancellation earphones with the Aberdeen Airport logo... It would be Nice and a form of retribution and apologize for all the daily noise, at the same time it would be useful for the travelers , and a good marketing campaign .	

Consultation question	Comment (verbatim)	Airport response
Theme – Noise and vibration		
Would you like to provide any further feedback about the draft Noise Action Plan?	Does the noise levels include vibrations mostly from helicopters downdrafts. These vibrations can cause building damage (usually over extended time) and also unwanted car alarm activations at inappropriate times.	Noise inside houses can be perceived as airborne noise-induced vibration. The controls in the Noise Action Plan will reduce both airborne noise and airborne noise-induced vibration
Theme – Noise insulation scheme - assessment		
Would you like to provide any further feedback about the Noise Insulation Scheme?	Yes, I would like to know how they properties are assessed , how is determined if I need or not improvement on my noise insulations	Our independent noise assessor will arrange a time to undertake a survey of the applicant's property which will identify what, if any, insulation works may be effective in achieving appropriate noise reduction. If the survey identifies that additional insulation may be effective in reducing internal noise levels, it will recommend the most appropriate form of insulation to be employed in each case. Further details and frequently asked questions for the Noise Insulation Scheme are available on our website at the following link: **https://www.aberdeenairport.com/about-us/community-matters/noise/noise-insulation-scheme-nis/**

D1 Appendix D

Previous noise mapping results (superseded)

After the publication of the draft Noise Action Plan for consultation, SEPA made a minor modification to the methodology of estimating population and dwelling counts, which has resulted in small changes to some of the population and dwelling numbers in the tables in **Section 5** of the Noise Action Plan. These changes are minor and do not affect any of the proposals in the NAP. The original tables that were issued for public consultation are provided below for information only.

Table D1 Aberdeen International Airport 2021 annual day $L_{Aeq,16h}$ contours – estimated areas, population and dwellings

Annual $L_{Aeq,16h}$ (dBA)	Area (km²)	Population	Dwellings
≥ 55	9.5	4,700	2,700
≥ 60	2.8	600	200
≥ 65	1.0	0	0
≥ 70	0.3	0	0
≥ 75	0.1	0	0

Table D2 Aberdeen International Airport 2021 L_{den} contours – estimated areas, population and dwellings

Annual L_{den} (dBA)	Area (km²)	Population	Dwellings
≥ 55	10.2	7,500	4,000
≥ 60	3.2	900	400
≥ 65	1.1	0	0
≥ 70	0.4	0	0
≥ 75	0.2	0	0

Table D3 Aberdeen International Airport 2021 L_{day} contours – estimated areas, population and dwellings

Annual L_{day} (dBA)	Area (km²)	Population	Dwellings
≥ 55	12.4	5,800	3,200
≥ 60	3.4	1,000	400
≥ 65	1.2	<100	<50
≥ 70	0.4	0	0
≥ 75	0.1	0	0

Table D4 Aberdeen International Airport 2021 $L_{evening}$ contours – estimated areas, population and dwellings

Annual $L_{evening}$ (dBA)	Area (km²)	Population	Dwellings
≥ 55	2.8	800	400
≥ 60	0.9	0	0
≥ 65	0.4	0	0
≥ 70	0.2	0	0
≥ 75	0.0	0	0

Table D5 Aberdeen International Airport 2021 L_{night} contours – estimated areas, population and dwellings

Annual L_{night} (dBA)	Area (km²)	Population	Dwellings
≥ 50	3.2	1,100	450
≥ 55	1.0	0	0
≥ 60	0.4	0	0
≥ 65	0.2	0	0
≥ 70	0.0	0	0