

# Draft Noise Action Plan 2024-2028



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# 1. Foreword

London Stansted Airport is the international gateway to the East of England, and the third largest airport in the London system.

With the densest European network of any UK airport, London Stansted is a well-known hub for short-haul, low-cost carriers. The airport has potential to play a bigger role serving the long-haul market, with full-service carriers operating to destinations such as Dubai. London Stansted is also home to a significant cargo operation. Handling around 243,000 tonnes annually, London Stansted is the UK's third largest cargo airport and London's premier pure cargo gateway.

We are committed to growing sustainably and responsibly. In 2021, the Planning Inspectorate granted the airport permission to increase its passenger cap to 43 million passengers a year. This decision provided clear assurance that London Stansted's growth and development can be delivered in a responsible way, supported by our commitment to make the airport's operations net zero by 2038 and by the industry's commitment to make the whole sector net zero by 2050.

At Stansted Airport we have already taken steps to decarbonise our airport operations and our own activities are independently certified carbon neutral through Airport Carbon Accreditation. To support further decarbonisation we have exciting plans. They include the development of a 14-megawatt solar farm east of the runway to power the airport with renewable electricity, modernising airspace to curb emissions and reduce noise, supporting research into aviation decarbonisation, and introducing financial incentives for airlines to operate zero-emission aircraft and increase their use of sustainable aviation fuel.

This latest Noise Action Plan covers the period 2024 to 2028. It sets out how we will minimise the impact of noise from aircraft operations at the airport through a combination of noise controls, operational procedures and mitigation activities. In addition, our Noise Action Plan sets out the way in which we will measure our performance and provide information about noise to our stakeholders. We also report against the actions we have previously made to manage noise.

In this consultation, we are proposing new policies to minimise our noise impacts. These include limiting noise generated by aircraft operating during the 8-hour night period throughout the summer scheduling season, installing additional noise monitors in local communities, and enhancing the ways in which we provide information about noise to stakeholders.

We want to hear feedback and views on these proposals. Over the coming weeks we will be working with surrounding local authorities, local councils, community representatives, the Stansted Airport Consultative Committee, airlines and NATS (the provider of the UK's air traffic control services), to ensure that the finalised Noise Action Plan responds to feedback from our stakeholders.



A handwritten signature in blue ink, appearing to read 'G Powell', positioned above the printed name and title.

**Gareth Powell**  
**Managing Director**  
**London Stansted Airport**



# 2. Public consultation





The objective of our consultation is to give people an early and effective opportunity to provide views and feedback on the preparation and review of the Noise Action Plan. To ensure our Noise Action Plan is accessible for public consultation, we have been careful to explain technical concepts and to provide a glossary of terms.

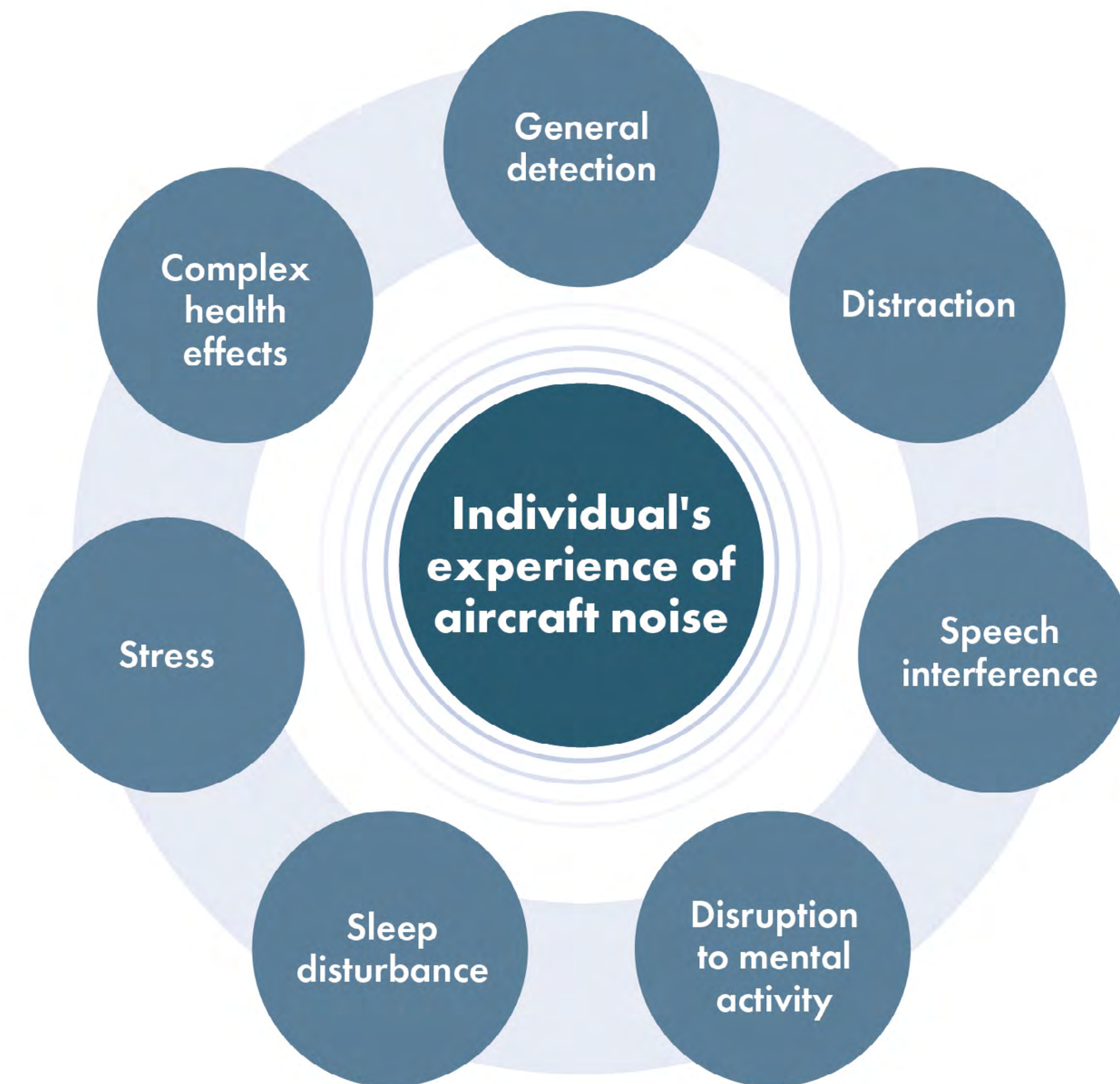
We have designed this consultation to ensure that our stakeholders have an opportunity to provide views and feedback on our review of the Noise Action Plan. In addition to meeting regulatory requirements, we will ensure that:

- The public are consulted about proposals in the Noise Action Plan.
- The public are given early and effective opportunities to participate in the preparation and review of the Noise Action Plan.
- The results of public participation are taken into account.
- The public are informed of the decisions that have been taken.
- Reasonable time-frames are provided allowing sufficient time for public participation.

There are many stakeholders, including airlines and their customers, regional and national businesses that rely on the services airlines provide, and local communities.

Noise is complex because people living around the airport experience it in different ways and to different degrees. Current Government guidance has summarised these effects as shown in Figure 1.

Figure 1. Responses to an individual's experience of aircraft noise

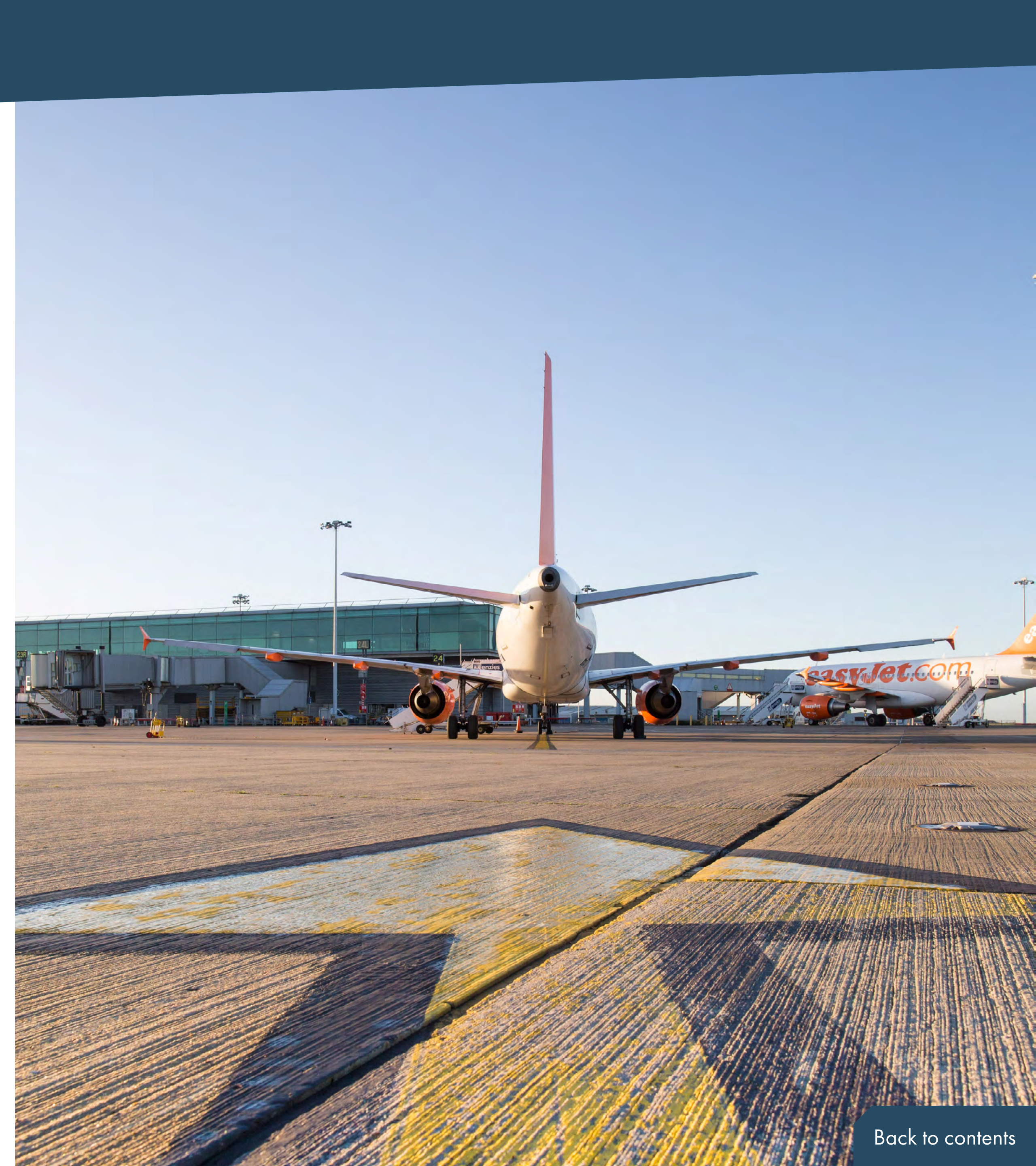




London Stansted Airport has a well-established community engagement programme and strong relationships with external stakeholders. The airport is familiar with undertaking public consultations on its strategic plans, including previous Noise Action Plans and our Sustainable Development Plan (SDP). Public consultation will play an important part of the noise action planning process, for which stakeholder comments are welcomed, encouraged and will be taken into account.

Our consultation on this Noise Action Plan will include:

- Engagement and discussions with key stakeholders, including airlines, regulators and the Stansted Airport Consultative Committee, during the drafting of the Noise Action Plan.
  - Communication with stakeholders when the draft Noise Action Plan is published for consultation. This communication will be shared with all stakeholders by email notifying consultees that the consultation has opened and will close on 28<sup>th</sup> August 2023.
  - A period of public consultation to enable stakeholder comments to be made. This will start in July and close on 28<sup>th</sup> August 2023.
  - An offer of meetings and briefings with key local stakeholders, including county councils, district councils, town councils, parish councils, airlines, members of Parliament and the Stansted Airport Consultative Committee.
- Use of existing communication channels to promote the consultation on the draft Noise Action Plan. This will include publication of information on our website as well as a special issue of the London Stansted Airport Community Flyer e-newsletter.
  - Provision of information about our Noise Action Plan consultation will be included at any planned outreach events that take place during the consultation period.
  - Hard copies of the Noise Action Plan and consultation documents will be available on request.
  - A meeting of the airport's Flight Operations Committee or an alternative consultation workshop for airline partners will be arranged.
  - Pre-consultation with the Environmental Issues Group sub-group of the Stansted Airport Consultative Committee has already taken place. Additional consultation will take place with the Stansted Airport Consultative Committee on 17<sup>th</sup> July 2023.





## Consultees

As part of our consultation we welcome feedback from all stakeholders.

## Consultation process

The UK Government provided guidance information and a data pack for Stansted Airport in September 2022. This information was used to support the preparation of the draft Noise Action Plan. We also discussed the development of the Plan and sought views on aircraft noise from the Environmental Issues Group (EIG) sub-group of the Stansted Airport Consultative Committee in February 2023. Finally, we gathered information on best practice and emerging noise reduction work through our involvement in Sustainable Aviation, a coalition of UK aviation companies.

This draft Noise Action Plan 2024-2028 is published on the London Stansted Airport website with details of how to respond to our consultation, together with a video providing information to people who want an overview of the Plan.

Additionally, we have identified a range of stakeholders who will receive formal notification that our consultation has launched. These stakeholders include members of Parliament, local authorities, parish councils, and aviation industry stakeholders. Details of the stakeholders who will receive formal notification that our consultation has launched are provided in Appendix A.

We have developed an online feedback form which is available on our website. We encourage people to use the online feedback form where possible, however responses are welcomed in any format. A hard copy of the feedback form is available on request, and an email address and a postal address for submissions have been provided on our website and below. Any interested party can request a printed version of the draft Noise Action Plan.

All feedback must be submitted before midnight on 28<sup>th</sup> August 2023.

You can provide your feedback in the following ways:

- Complete our Noise Action Plan feedback form [here](#) (link to follow)
- Email us at: [community@stanstedairport.com](mailto:community@stanstedairport.com)
- Please mark your correspondence as 'Noise Action Plan Consultation'
- Write to: Noise Action Plan Consultation, London Stansted Airport, Enterprise House, Bassingbourn Road, Stansted CM24 1QW





# 3. The airport



## In the case of this Noise Action Plan, Stansted Airport Limited (STAL) is the responsible authority.

### About Stansted Airport

London Stansted Airport is the international gateway to the East of England, and the third largest airport in the London system. At its peak in 2019, it handled 28 million passengers, and it currently serves over 190 destinations across Europe, North Africa and the Middle East.

As well as playing a key role in connecting the East of England region to the world, the airport is a catalyst for economic growth and productivity. It employs over 12,900 people across 180 companies, and in 2019 contributed £1 billion gross value added to the UK economy. Over two-thirds of the people who work at the airport live in North Essex and East Hertfordshire, and the airport is a major source of employment for people who live in the nearby towns of Bishop's Cleeve, Great Dunmow, Harlow and Braintree.

The airport has one operational runway and a single terminal building located to the south of the runway. To the north of the runway, a number of general aviation companies operate from their own facilities. The main runway is 3,048m long and is equipped with a Category 3B instrument landing system (ILS). Many aircraft types serve the airport, including passenger and cargo aircraft. The majority are twin-engine, medium-sized, narrow-bodied passenger aircraft such as the Boeing 737-800 series, as well as the more recent 737-8200 (Max) and Airbus A320 aircraft, including the new 'Neo' variants. These new aircraft bring technological enhancements in engine and airframe design and are up to 50% quieter than the aircraft they replace.

As part of our new Noise Action Plan, we will continue to closely monitor the operation of all aircraft operating at the airport, and to work with our airlines to fully realise the benefits of newer, quieter aircraft.

### Future plans

Stansted's origins date back to the Second World War when the airport was built to provide an airfield base for the United States army. Over the last 75 years the airport has grown considerably. Stansted Airport now has long-term ambitions that will create more choice and competition for passengers, new terminal facilities, and more opportunities for local people. In June 2021 planning permission was granted to serve up to 43 million passengers a year. As part of our planning application, we made a commitment to grow to 43 million passengers a year within our existing aircraft movement limit of 274,000 a year, of which no more than 16,000 can be cargo air transport movements. This means that we propose to make best use of our existing capacity without increasing the number of flights we are allowed to handle, and to contain our impact within the environmental limits that have already been set. The planning permission also establishes new controls on noise at night: it introduces limits on the areas within daytime and night-time noise contours. These limits are explained in more detail in the *Laws and policies* chapter.

In July 2023, London Stansted announced plans to submit a planning application for a three-bay extension at the back of the existing terminal, covering the full width of the building. This 16,500m<sup>2</sup> extension will increase the size of the departure lounge by around 45%, providing more space for passengers to relax before their flights, and offering new bars, shops and restaurants. It will also extend the security hall with an additional three security lanes to be fitted with next-generation scanners. The capacity of our immigration hall and baggage system will be increased, introducing baggage belts that accommodate larger aircraft flying long-haul routes. At check-in, the existing islands will be replaced with a shoreline configuration, providing a more spacious environment with additional queuing space. New 'skylink' walkways will directly link the terminal to the satellites. They will replace the TTS (track transit system) to give our passengers more flexibility and reliability. This extension is about providing the additional space inside the terminal to cater for passenger growth up to 43 million passengers a year, and to enhance their experience at every stage of their journey through the airport.



## Airport operations

London Stansted operates 24-hours a day, 365 days a year using a single runway aligned in a north-east to south-west direction. Aircraft movements comprise commercial passenger flights (scheduled and charter), express cargo and air-freight flights, and general aviation flights, including helicopter operations. In 2022, 84% of aircraft movements took place during the day (07:00 to 23:00). Night-time aircraft movements (23:00 to 07:00) were a mixture of passenger, freight, and mail flights, and accounted for 16% of operations.

For safety reasons, aircraft normally take off and land into the wind. Given that prevailing winds come from the south-west, the usual mode of operation is for departures to leave towards the south-west and arrivals to come in from the north-east. How the departures are split at the airport, and the wider areas overflowed by departing aircraft, are shown in Appendix B, which also shows the areas overflowed by arriving aircraft. All departing aircraft following instrument flight rules must follow noise preferential routes (NPRs) shown in Appendix C.

## Sources of noise

Noise is primarily generated by aircraft as they arrive, depart and move around the airport. Other sources of noise at the airport include activities involved in getting passengers and cargo to and from aircraft, aircraft maintenance and engine tests, airport construction activities and vehicles and trains travelling to and from the airport.

## Approach to noise management

Information on historic, current and future noise levels at the airport is presented in this plan, along with the existing, modified and new actions the airport proposes to implement. Managing current noise effects and those arising from future growth is a key focus for the airport. Our long-term aim is to '...limit and reduce where possible, the number of people affected by noise because of the airport's operation and development'.

We are committed to minimising the number of people affected by aircraft noise by routinely reviewing our noise-related targets and policies. We will also continue to support local communities, with a focus on those most affected by aircraft operations. This will include continuing our community-engagement programme, noise mitigation schemes and our Community Fund.

We will continue to measure our performance against other airports, and to contribute to the sustainable development of the air transport industry at national, regional and local levels. We will also support and contribute to the noise-related commitments contained within the UK's Aviation Policy Framework and emerging national aviation policy.





# 4. Noise mapping





### What are noise maps?

In the same way that geographical maps use contours to distinguish between high and low ground, noise maps use lines (also known as contours) to mark the boundaries between areas that are louder or quieter depending on their proximity to airport operations.

Noise maps are often referred to as noise contour maps.

Although noise contour maps provide information on noise levels in terms of average noise and the number of people affected, their main purpose in this context is to help authorities produce noise action plans to manage noise and reduce noise levels where appropriate. With noise contour maps going back over many years, it is possible to compare the results to understand how the impacts of aircraft noise change over time.

Noise contour maps and their boundaries can form part of a planning agreement between an airport and the local authority. They act as a managed containment area for noise in terms of an area usually measured in square kilometres (km<sup>2</sup>). At London Stansted Airport we have an agreed limit of 33.9 km<sup>2</sup> for the daytime 57dB L<sub>Aeq</sub> noise contour during the 92-day summer period. This limit applies until annual passenger numbers at the airport exceed 35 million passengers. When annual passenger numbers exceed 35 million passengers, tighter limits introduced by our 2021 planning approval become effective.

There are many types of noise contour map, and they can vary greatly. Variations relate to the period of the year they cover (for example, annual contours that cover a calendar year or 92-day summer contours produced for the busy period from 16 June to 15 September) or period of the day (for example, 16-hour day or 8-hour night). More recently we have seen noise contour maps produced that indicate the number of noise events above a certain threshold value. These are more commonly known as 'number above' contours.

Since the Environmental Noise (England) Regulations 2006 (as amended) place responsibility for preparing a Noise Action Plan (and its associated mapping) on the airport operator, we commissioned specialist acoustic consultants to produce noise contour maps based on activity in 2021. Noise contours were produced using the Civil Aviation Authority's ANCON noise modelling system. ANCON is a specialised computer system that models the noise impact of aircraft operations based on the number and types of departing and landing aircraft, the routes flown and the time of the flight. It uses this data to estimate the noise impact on the ground around an airport.

Our noise contour maps were issued to the Department for Environment Food & Rural Affairs (Defra). Defra then applied June 2015 population estimates obtained from the Office of National Statistics (ONS) to create the Round 4 mapping data provided to Stansted Airport under the terms of the regulations. This Noise Action Plan includes details of the 2021 data pack and noise contour maps.

Each year we produce noise contour maps using aircraft movements for an average summer's day (16 June to 15 September). The contour maps cover the 16-hour day (07:00 to 23:00) and 8-hour night (23:00 to 07:00), are based on 92 days' data, and are presented in terms of the 'A-weighted equivalent continuous noise level' (L<sub>Aeq</sub>). The A-weighting is designed to represent the human ear's response to sound. When comparing the summer noise contour maps with the annual noise contour maps previously produced by Defra for Stansted Airport, there can be some significant differences.

Under the Environmental Noise (England) Regulations 2006 (as amended), noise-contour maps are produced every five years. The noise contour maps in this Noise Action Plan show the 'L<sub>den</sub>' noise contour for an annual average day between January and December 2021 for each of the following periods:

- L<sub>day</sub> – the level in the day, 07:00 to 19:00
- L<sub>evening</sub> – the level in the evening, 19:00 to 23:00
- L<sub>night</sub> – the level at night, 23:00 to 07:00
- L<sub>den</sub> – the level over 24 hours

L<sub>den</sub> figures are produced by combining results for each of the three periods L<sub>day</sub>, L<sub>evening</sub> and L<sub>night</sub>. To take account of the fact that noise is more disturbing at night, a weighting of 5dB is added to the evening values and a weighting of 10dB is added to the night values before the three are combined to produce the L<sub>den</sub> level.



The noise contour maps produced for this Noise Action Plan are based on activity in 2021 when the airport was impacted by the COVID-19 pandemic. During the pandemic, passenger traffic at Stansted Airport reduced. As a result, noise contour maps based on activity in 2021 are not typical of airport operations. In accordance with guidance issued by Defra, we have introduced supplementary performance measures intended to provide readers with a broader view of the noise environment at Stansted Airport during 2021 and other years.

Supplementary performance measures have been identified following a review of the information available and discussion with the Environmental Issues Group (EIG) sub-group of the Stansted Airport Consultative Committee (STACC) and the Noise and Track Keeping Working Group. The following supplementary noise performance measures are also included in Appendix D:

- Summer 92-day 16-hour  $L_{Aeq}$  contour data, including 2019, the last year of normal operations before the COVID-19 pandemic
- Summer 92-day 8-hour  $L_{Aeq}$  contour data, including 2019, the last year of normal operations before the COVID-19 pandemic

We recognise that people respond differently to noise, and this makes it difficult to quantify the relationship between noise and annoyance. However, for the purposes of this Noise Action Plan, places near the airport are deemed to be affected by aircraft noise if the noise mapping indicates an  $L_{den}$  value of 55dB or more or an  $L_{night}$  value of 50dB or more. As a priority, the Aviation Policy Framework 2013 requires us to consider any further measures which we could take in areas where our noise contour maps show homes exposed to more than 69dB  $L_{Aeq}$  between 07:00 and 23:00. Noise contour maps from 2021 show no properties within this contour.





# 5. Noise mapping results

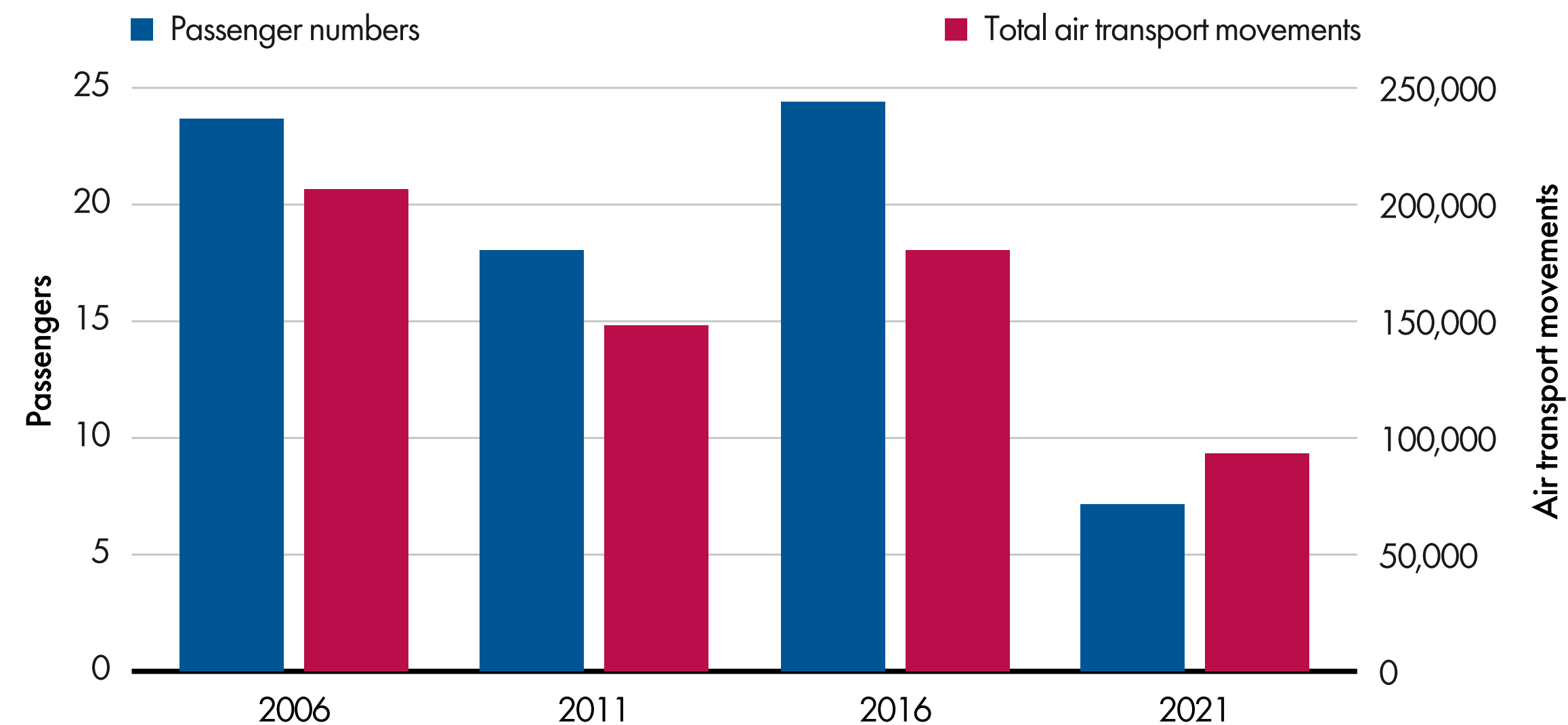


The shape and size of noise contours are influenced by a number of factors. In addition to the number and types of aircraft operating, weather conditions also have an effect. This is because aircraft take off and land into wind for reasons of operational safety.

The Environmental Noise Regulations require us to provide noise contours for the calendar year 2021. During this period, 64% of flights operated in a south-westerly direction (when the runway is known as Runway 22) and 36% in a north-easterly direction (when the runway is known as Runway 04). In 2016, which was the base year for our last Noise Action Plan, 67% of flights operated on Runway 22 and 33% on Runway 04. The long-term average, measured over the last 20 years, shows 72% of flights operating on Runway 22 and 28% on Runway 04. We use this long-term average modal split when we produce noise contours for the year or the 92-day summer period.

During the COVID-19 pandemic, operations at the airport were significantly impacted. Although demand for express freight services continued, there was a significant reduction in the number of passenger flights. Figure 2 shows the number of flights at London Stansted Airport in the years upon which our Noise Action Plans have been based. The impact of reduced traffic levels in 2021 can be seen in our noise contours for that year.

Figure 2. Passenger numbers and aircraft movements at London Stansted Airport during Defra noise mapping years



Noise contour maps for the airport have been used by Defra to estimate the number of homes and the size of the population exposed to different levels of noise. To make these estimates, Defra used the 2015 Ordnance Survey Address Base and Topography layer together with information from the Office for National Statistics mid-year (June 2015) population estimates. Their estimates take account of buildings that contain more than one home, such as apartment blocks. The same methodology and information from the Ordnance Survey and Office for National Statistics were used by Defra when making dwelling and population estimates for 2016.

The supplementary measures described in Chapter 4, *Noise mapping*, use the airport’s summer 92-day  $L_{Aeq}$  noise contour data from 2019. Estimates for the number of dwellings and people within the contours have been produced using a postcode database provided by CACI Ltd. This database is based on census data updated for 2019. During the 2019 92-day summer contour period, 75% of flights operated in a south-westerly direction (using Runway 22) and 25% in a north-easterly direction (using Runway 04).

We have provided noise contours maps in full in Appendix D, along with information about the number of dwellings and populations they contain. We have also provided information about 2019, which was the last full year before the COVID-19 pandemic.



### Summary results: description of the noise contours

When looking at the shape of the 2021  $L_{den}$  contour, there are several characteristics to be highlighted. The prominence of south-westerly operations means that the 55dB noise contour shows an arrival lobe to the north-east of the airport, extending just beyond Thaxted. A similar lobe extends to the west of Sawbridgeworth for Runway 04 arrivals. Departure lobes for Runway 22 follow the profiles of our noise preferential routes (NPRs). They extend beyond Little Hallingbury, which is influenced by the Runway 22 Clacton departure route. For Runway 04 there is a slight extension of the contour towards Tilty which is influenced by departing aircraft on the Runway 04 Clacton route. There is less influence shown for the Buzad Noise Preferential Routes, as aircraft are able to climb straight ahead for longer. The 75dB contour is contained entirely within the airport boundary.

The  $L_{night}$  contours for 2021 show a similar profile to those of  $L_{den}$ , with the 48dB contour having the same characteristics as the 55dB  $L_{den}$  contour. The 57dB  $L_{night}$  contour shows an arrival lobe extending to the north-east to Broxted, identical to the 65dB  $L_{den}$  contour. The influences of departing aircraft in the 48dB  $L_{night}$  contour are identical to those of the 55dB  $L_{den}$ .

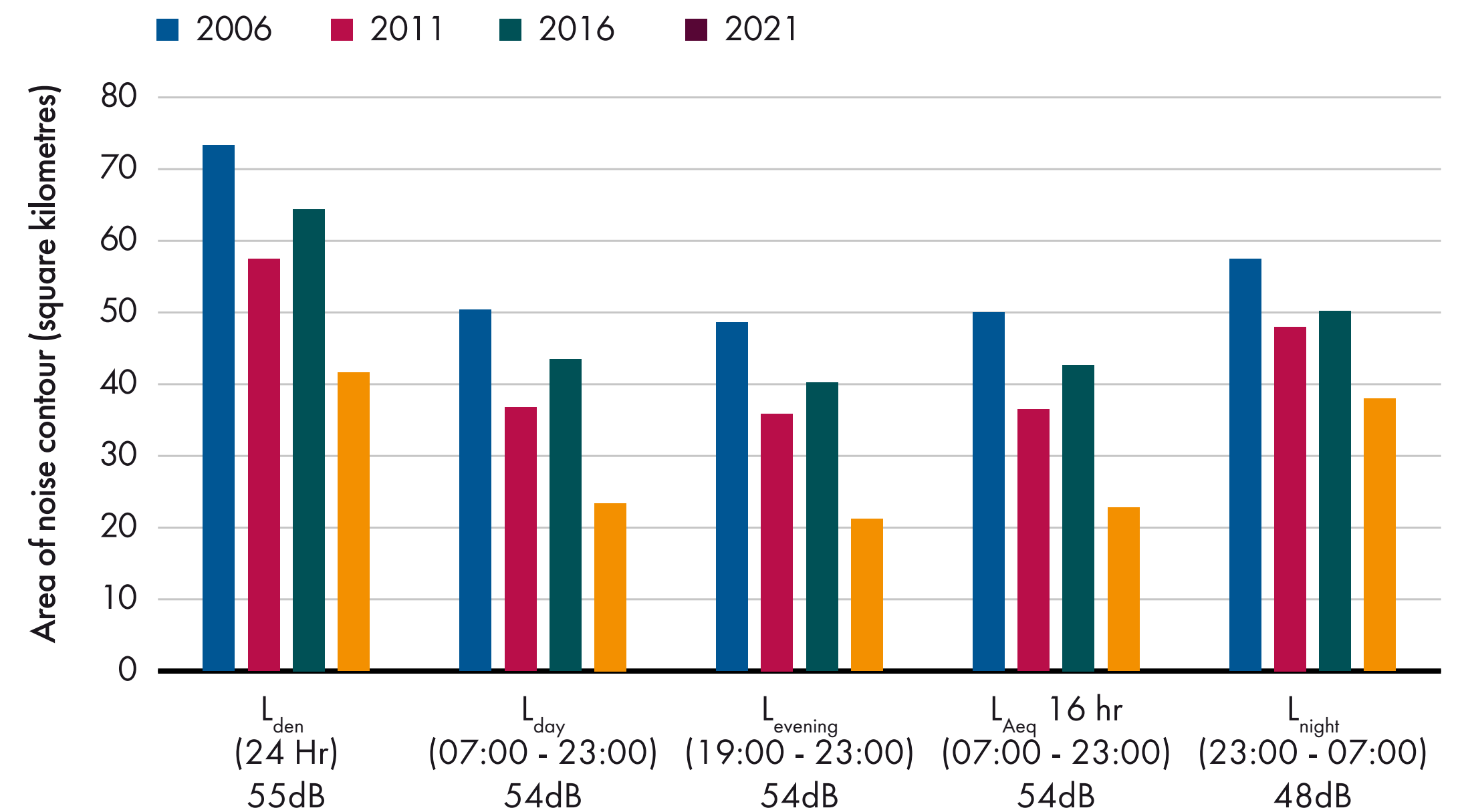
When compared to the 2016 mapping results we can see the impacts of reduced air traffic levels, with greatly reduced contour areas.

### Summary results: noise contour areas

The area of  $L_{den}$  and  $L_{night}$  contours in 2021 and during the previous noise mapping years of 2016, 2011 and 2006 are shown in Figure 3. Following a reduction in traffic during 2021, the area contained within Stansted Airport’s noise contours is also reduced.

The 55 $L_{den}$  contour decreased by 22.8 square kilometers ( $km^2$ ) between 2016 (when it measured 64.4 $km^2$ ) and 2021 (when it measured 41.6 $km^2$ ). The  $L_{night}$  contour shows a reduction of 12.2 $km^2$  between 2016 (when it measured 50.2 $km^2$ ) and 2021 (when it measured 38.0 $km^2$ ).

Figure 3. Noise contour areas ( $L_{den}$ ,  $L_{day}$ ,  $L_{evening}$ ,  $L_{Aeq}$  and  $L_{night}$ ) at London Stansted Airport during Defra noise mapping years



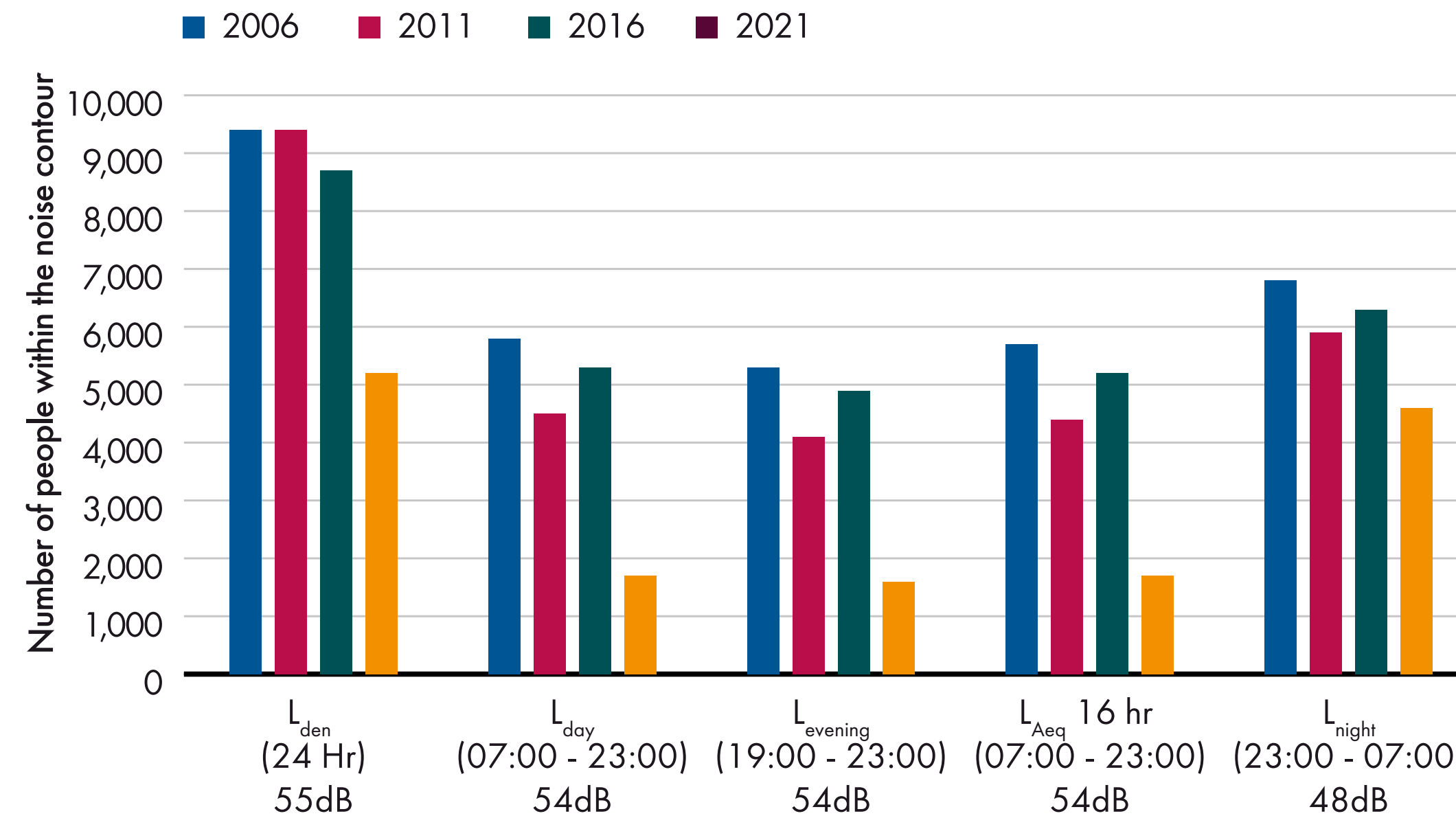


### Summary results: population

Changes to the number of people estimated to be affected by noise, based on the Defra noise-mapping results, are presented in Figure 4. These population estimates are directly linked to the noise-contour areas presented in this chapter. They are also influenced by the population density within the area of the noise contour. Figure 4 shows the results of modelled noise levels for each noise metric in 2021, compared to the previous noise mapping years of 2006, 2011 and 2016, with the population counts for  $L_{den}$ ,  $L_{day}$ ,  $L_{evening}$ ,  $L_{Aeq}$  and  $L_{night}$ . The population within the 55dB  $L_{den}$  contour shows a decrease between 2016, when the contour was estimated to contain 8,700 people, and 2021, when the same contour was estimated to contain 5,200 people. The population within the 48dB  $L_{night}$  contour shows a similar trend, decreasing from 6,300 people in 2016 to 4,600 people in 2021.

Changes in the number of people estimated to live within the results for population are similar to those for the contour areas and are greatly influenced by the reduction of passenger air traffic during the COVID-19 pandemic. The lesser reduction in the  $L_{night}$  measure was due to the continuation of express freight operations that operate a night-flying schedule and were largely unaffected by the COVID-19 pandemic.

Figure 4. Population within the annual  $L_{den}$ ,  $L_{day}$ ,  $L_{evening}$ ,  $L_{Aeq}$  and  $L_{night}$  noise contours for London Stansted Airport during Defra noise mapping years





## Supplementary noise mapping

As previously described, the number of flights at Stansted Airport in 2021 was lower than normal. As a result, little can be drawn by comparing 2021 to previous noise mapping years. In accordance with Government guidance and following discussion with the Stansted Airport Consultative Committee (STACC) and Noise and Track Keeping Working Group (NTKWG), we have introduced supplementary noise metrics. These are discussed in Chapter 4, *Noise mapping*.

Figures X and X show the area and population within the summer 92-day, 16-hour day and 57dB  $L_{Aeq}$  contour and the 8-hour night 48dB  $L_{Aeq}$  contour. Noise contour maps and data tables for these metrics are provided in Appendix D.

Since noise contours for the 92-day summer period report the airport's noise impact at the busiest time of the year, they are usually larger than annual noise contours which include activity at less busy times of the year. However, the 92-day summer noise contours do show the benefit of our noise policies and the investment airlines are making in quieter aircraft. In 2019, the year before the COVID-19 pandemic, the summer 92-day, 16-hour 57dB contour was 28.5km<sup>2</sup>. During this period there were 47,000 flights. In 2022, the area of the same noise contour was 21.4km<sup>2</sup> with 43,000 flights. Between 2019 and 2022, the area of this noise contour reduced by 24.9% while the number of flights reduced by only 8.5%. Similarly, in 2019, the summer 92-day 48dB 8-hour night noise contour was 72.2km<sup>2</sup>, based on 8,500 flights. In 2022 the same noise contour was 63.4km<sup>2</sup>, based on 9,000 flights. Although there was a 5.8% increase in the number of flights during the 8-hour night between 2019 and 2022, the area of the noise contour decreased by 12.2%.





Figure 5. Area and population contained within the summer 57dB  $L_{AeqT}$  16-hour daytime noise contour for London Stansted Airport

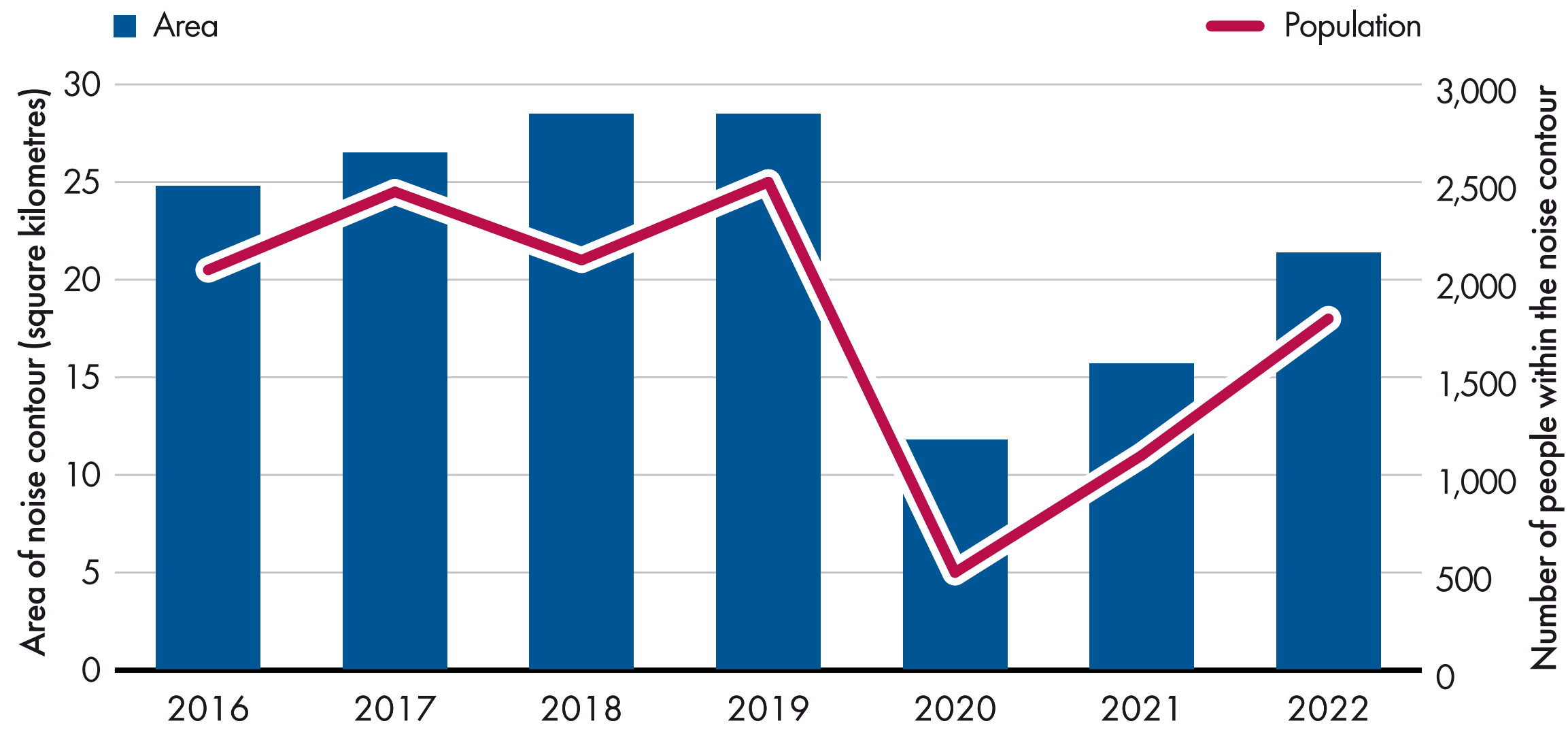
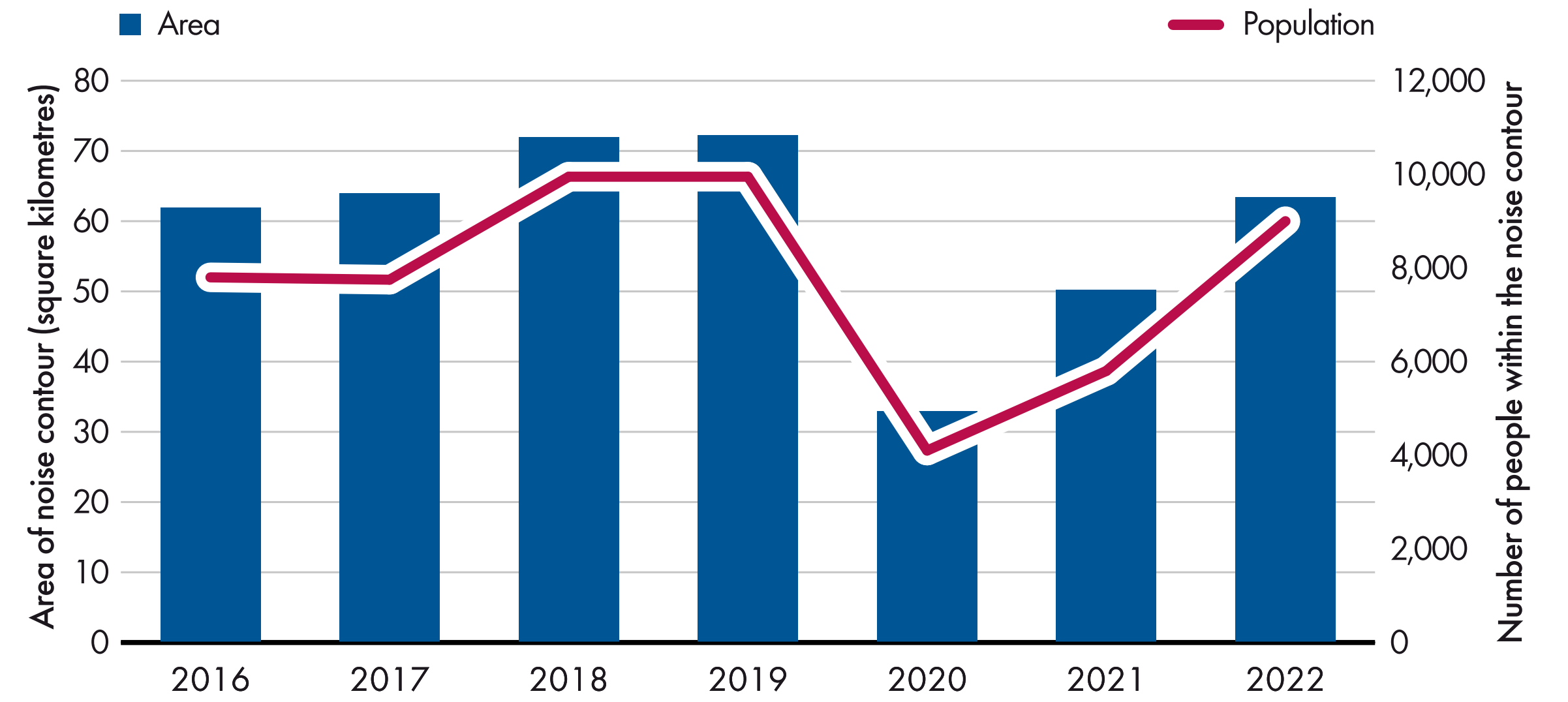


Figure 6. Area and population contained within the summer 48dB  $L_{AeqT}$  8-hour night-time noise contour for London Stansted Airport





# 6. Laws and policies





## The laws and policies that have been set up to manage aircraft noise are complex and multi-layered.

Aircraft noise law and policies in the UK have evolved over many years and are based on experience gained both here in the UK and beyond. The charts on the following pages summarise the tiers of aircraft noise laws and policies affecting operations at airports. These are discussed in more detail in this chapter.

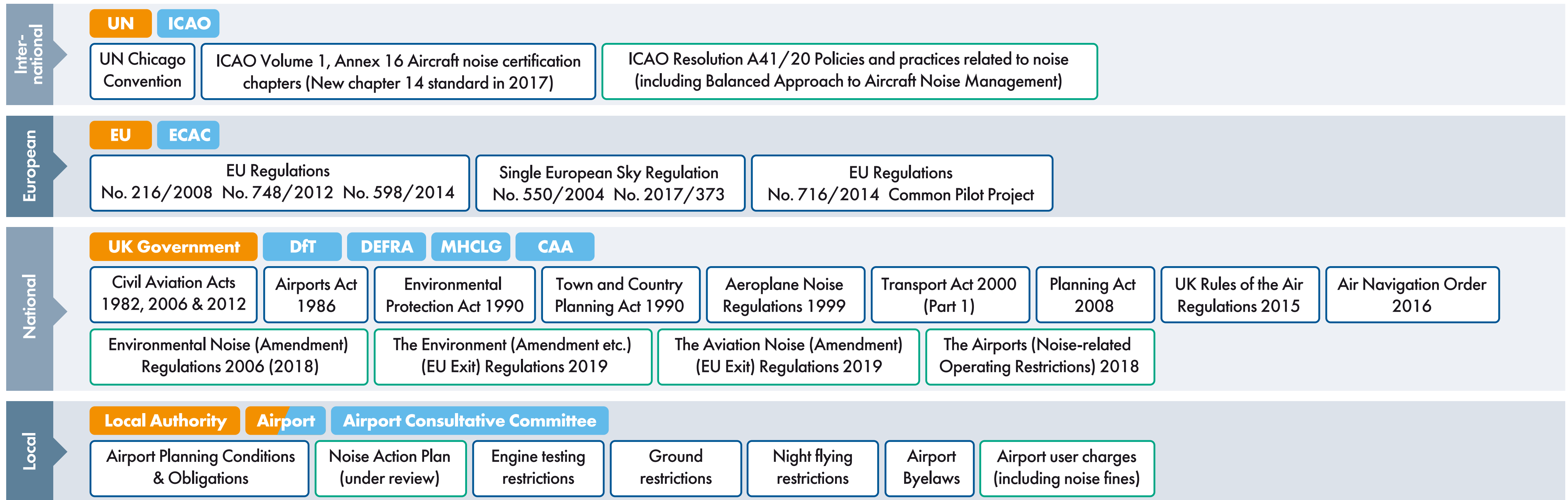
Difference between a law and a policy:

- Laws** Legal documents that must be complied with. In the UK these include acts, regulations and orders.
- Policies** Supporting documents to laws that provide further information and assistance in managing the issues. These include strategies, plans, guidelines, frameworks, standards, information, projects, and best-practice guides. They can come from any geographic location.





Figure 7. Structure of aircraft noise management laws

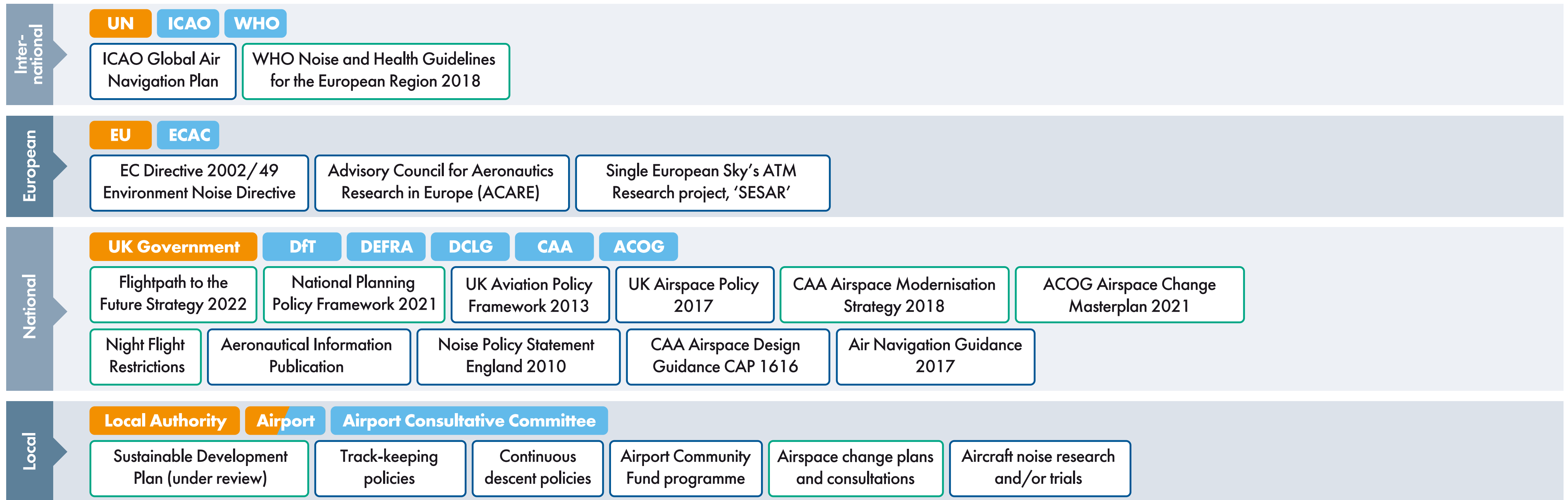


**Key**

- Governing body
- Implementation body
- Revised or new since 2018



Figure 8. Structure of aircraft noise management policies



- Key**
- Governing body
  - Implementation body
  - Revised or new since 2018



## International aircraft noise policy

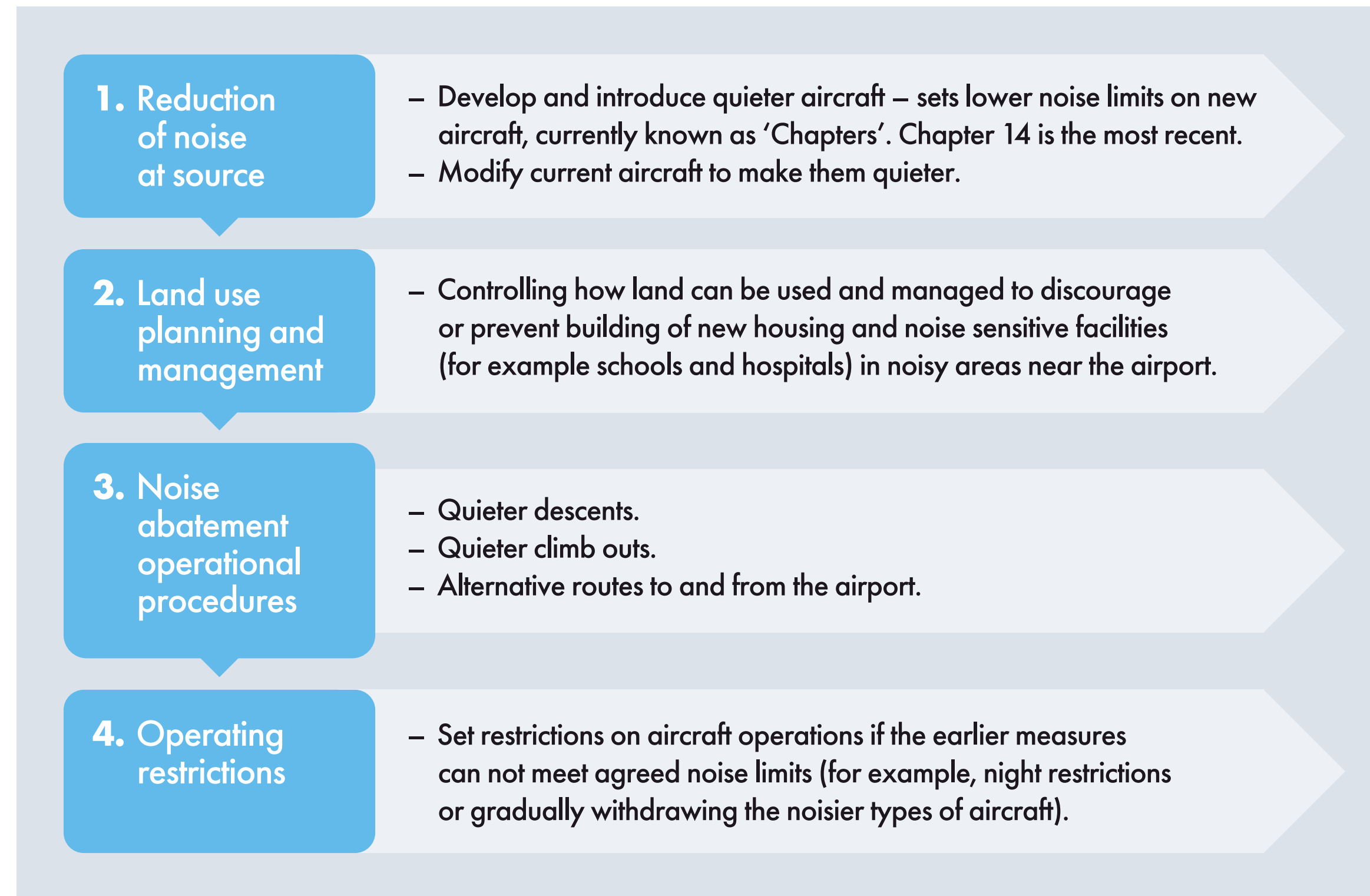
As aviation activities occur around the globe, many policies have been developed at an international level to address the effect of aircraft noise.

### International Civil Aviation Organization (ICAO) aircraft noise policy

The International Civil Aviation Organization (ICAO) is a specialised agency of the United Nations. It aims to develop the principles and techniques of international civil air navigation and foster the planning and development of international air transport. ICAO established a 'Balanced Approach' for managing aircraft noise with four priorities presented in Figure 9.

One of ICAO's main activities is the establishment of international standards and recommended practices and procedures for the technical fields of aviation, including aircraft noise. After a standard is adopted, it is put into effect by each ICAO member state in its country.

Figure 9. International Civil Aviation Organization (ICAO) Balanced Approach to aircraft noise management



To reduce noise at source, ICAO has set progressively tighter certification standards (known as 'Chapters') for noise emissions from civil aircraft. The Chapters set maximum acceptable noise levels for landing and take-off by all new models of each aircraft type. The first Chapter, known as Chapter 2, was set in 1973. This was followed by Chapter 3 in 1977, Chapter 4 in 2001 and Chapter 14 in 2017. As these newer aircraft are brought into service by airlines, and older ones are phased out, the ICAO standards have consistently reduced the noise each new aircraft type makes.

Under Chapter 14, all new aircraft manufactured from 31 December 2017 onwards must meet the standard set at a 7dB cumulative margin below that of Chapter 4. Details can be found on the ICAO website<sup>1</sup>.

To make older aircraft quieter, airlines regularly make modifications to original aircraft. Modifications make older aircraft meet the noise requirements of later ICAO noise standards. This is the case with some of the commercial passenger and cargo operators at our airport. Their aircraft now comply with the Chapter 14 standard, despite the aircraft originally being certified as Chapter 4 aircraft.

<sup>1</sup> <https://www.icao.int/environmental-protection/Pages/Reduction-of-Noise-at-Source.aspx>



**What does a 'cumulative margin' mean?**

When certifying the noise level of an aircraft, noise is measured at three points – on approach, at the point of take-off and at 6.5km from the start of the take-off roll. Each of these noise recordings is added up and compared to the internationally agreed 'noise certification standard'. The difference between the actual recorded noise and the certification standard is known as the 'cumulative margin'<sup>2</sup>.

Figure 10. Downward trend in the noise certification of aircraft (Source: ICAO noise database<sup>3</sup>)



<sup>2</sup> <https://www.icao.int/environmental-protection/pages/reduction-of-noise-at-source.aspx>

<sup>3</sup> <http://noisedb.stac.aviation-civile.gouv.fr/>



### ICAO Global Air Navigation Plan

The [ICAO Global Air Navigation Plan \(GANP\)](#) is an overarching framework that includes key civil-aviation policy principles to help ICAO regions, sub-regions and states increase the capacity and improve the efficiency of the global air-traffic management system.

### World Health Organization Noise and Health Guidelines

The [World Health Organization published day and night-noise guidelines for Europe in 2018](#).

These guidelines collated research into the health effects of noise disturbance, including from aircraft noise, and made recommendations to governments on managing noise levels.

### European aircraft noise policy

The European Union (EU), through the European Civil Aviation Conference (ECAC), has issued various directives and regulations relating to the management and control of aircraft noise. Member states apply the requirements of the directives by incorporating them into national legislation.

Although the UK is no longer a member of the EU, many of the directives have been retained or are in the process of being incorporated into existing or new UK laws. The relevant directive and regulations for aircraft noise management are:

#### Environmental Noise Directive (2002/49/EC)

The Environmental Noise Directive has two main aims.

- To define a common approach to avoiding, preventing, or reducing the harmful effects, including annoyance, of being exposed to environmental noise.
- To provide a basis for developing community measures to reduce noise from major sources, particularly road and rail vehicles and networks, aircraft, outdoor equipment, industry and mobile machinery.

This is the overarching Directive that created the specifications for how to produce this Noise Action Plan. This European document has been brought into UK legislation as Retained EU Reference Directive 2002/49 on the assessment and management of environmental noise.

### EU Regulation No. 598/2014

This has replaced EC Directive 2002/30 and EU Directive 2006/93/EC. The regulation covers the establishment of rules and procedures relating to the introduction of noise-related operating restrictions at airports within a Balanced Approach. This regulation has been retained [by the UK following the exit from the EU](#).

### Single European Sky Regulation

Currently the average flight in Europe is 49km longer than necessary. Since the 1990s the EU has been working to improve the efficiency of air traffic management systems across Europe through the [Single European Sky programme](#). This is now aligned with the ICAO GANP approach. The UK has retained several EU regulations relating to modernising airspace.

### Pilot Common Project

One of the first Single European Sky projects (which became EU Law (EU) 716/2014) was to make binding the implementation of the six first ATM functionalities. This became the first Common Project, referred to as the '[Pilot Common Project](#)' (PCP). The PCP mandates airports under this regulation to implement a set of ATM functionalities and procedures. [This has been retained by the UK after leaving the EU](#), and London Stansted Airport is one of the UK airports bound by this agreement.

### National aircraft noise laws and policy

Legal control of aircraft noise in the UK is set out across a wide range of Acts and Regulations, as shown in the structure of aircraft noise management laws. The broader principles these laws are seeking to manage are set out in UK Government frameworks, strategy and guidance documents, and are summarised in the structure of aircraft noise policies.

### UK Aviation Noise Objective

The Government's overall noise objective, set out in the 2013 Aviation Policy Framework, is "...to limit and, where possible, reduce the number of people in the UK significantly affected by aircraft noise, as part of a policy of sharing benefits of noise reduction with industry." Further guidance on how this objective should be assessed in regards to airspace change was published by the Government in the [Air Navigation Guidance 2017](#).



Since 2017, the UK noise objectives and wider policies have been reviewed through an Aviation Strategy consultation which completed in 2022 with publication of [Flightpath to the future: a strategic framework for the aviation sector](#). This new strategy states the intention in 2022/23 to set out the next steps on a “clearer noise policy framework alongside measures to incentivise best operational practice to reduce noise and measures to improve airport noise insulation schemes”. In March 2023, the UK Government published its revised overarching noise policy statement: “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”

This Noise Action Plan has been developed in line with the current noise objective and in consideration of the ongoing discussions about a clearer noise policy framework.

Further relevant UK legislation for aircraft noise is detailed below:

**[The Environment \(Amendment\) \(EU Exit\) Regulations 2019](#)**

This transposes EU Directive 2002/49/EC into UK law.

**[The Environment \(Amendment\) \(EU Exit\) Regulations 2019](#)**

This adopts EU Directive 2002/49/EC into UK law.

**[The Environment Protection Act 1990](#)**

Section 79(6) of the Environmental Protection Act 1990 (as amended) specifically exempts aircraft noise from the general noise nuisance controls which exist under that legislation.

**The Civil Aviation Acts 1982 and 2006**

[The 1982 Act](#) gave the UK Government powers to introduce controls to limit or mitigate the effects of noise and vibration from aircraft landing or taking off at designated airports, currently Heathrow, Gatwick and Stansted Airports. These powers were widened by [the 2006 Act](#), which permits any airport authority to establish a ‘noise control scheme’ which may limit the numbers or types of aircraft that can be used in any given period. It also gives airport authorities the power to introduce charges and penalties designed to encourage the use of quieter or less-polluting aircraft.

**Designation by the Secretary of State using powers contained in Section 80 of the Civil Aviation Act 1982**

Stansted Airport is one of three airports that are designated by the Secretary of State for Transport using powers detailed in Section 80 of the Civil Aviation Act 1982. The other designated airports are Heathrow and Gatwick. Using powers detailed in Section 78 of the Act, the Secretary of State imposes limits on the number of night flights and the noise generated by those flights and introduces operational requirements that apply to aircraft departing or landing at Stansted Airport. Stansted Airport was first designated in 1993, at the same time as other London airports (at that time owned and managed by the British Airports Authority) were designated. It has remained designated ever since.

The present regime of night flying restrictions was reviewed in 2020/21 and set until October 2025. The main conclusions of the review were that:

- The existing night noise objective and night flight restrictions has been rolled over for a period of three years.
- The current night flight regime will run to October 2025.
- A ban on QC4-rated aircraft movements at the designated airports during the night quota period (23:30 to 06:00) was implemented from October 2022.

In March 2023, the Government consulted on a new night-time noise abatement objective, which is currently to “limit or reduce the number of people significantly affected by aircraft noise at night, including through encouraging the use of quieter aircraft, while maintaining the existing benefits of night flights”.

The Government measures performance against this current objective according to:

- The area of, and number of people within, the 48dB L<sub>Aeq</sub> 6.5-hour night contour
- Sleep disturbance impacts associated with night flights, assessed using the Government’s TAG methodology
- The average noise of an aircraft (as measured by the average noise quota count per aircraft movement over the course of a season)

The Government also stated that, in the future, it will produce number above metrics and look at how they can be used. For this regime, however, it will not use them to measure achievement against the objective.

The results of this consultation are expected to be published later in 2023 alongside a further consultation on night flight restrictions to take effect in October 2025.



**Airports Act 1986**

This Act gives the Secretary of State powers to limit the number of occasions on which aircraft may land or take-off at an airport, and to develop schemes to allocate airport capacity.

**The Environmental Noise (England) Regulations 2006 (as amended)**

These regulations turn the EU's Environmental Noise Directive (2002/49) into UK law. The regulations state that, for the purpose of producing noise maps at 'non-designated airports', the airport operator is considered to be the competent authority. The plans must:

- Be drawn up for places near the airport that fall within the 55dB(A)  $L_{den}$  contour or the 50dB(A)  $L_{night}$  contour on noise maps.
- Be designed to manage noise levels and effects, including reducing noise if necessary.
- Aim to protect quiet areas in agglomerations against an increase in noise.

Once prepared and adopted, Noise Action Plans must be reviewed and, if necessary, revised at least every five years, and whenever a major development takes place that affects the noise footprint around the airport.

**The Air Navigation Order 2016**

This overarching law defines requirements for certifying aircraft, regulations for how pilots must operate aircraft in the UK, and rules for how traffic control must be arranged and managed. It was last reviewed and updated in 2022 to reflect changes following the UK's withdrawal from the EU.

**The Aviation Noise (Amendment) (EU Exit) Regulations 2019**

This transposes Directive 2002/30/EC in UK law.

**The Airports (Noise-related Operating Restrictions) (England and Wales) Regulations 2018**

These regulations turn EU Directive 598/2014 (ICAO Balanced Approach) into UK law. They apply to major airport operators with over 50,000 civil jet aircraft movements a year, and reflect the adoption of the ICAO Balanced Approach to managing aircraft noise. Additionally, the regulations define procedures which airports should follow when considering operating restrictions based on aircraft noise.

**Aeroplane Noise Regulations 1999**

These regulations define the noise certificate requirements for both propeller and jet aeroplanes registered in the UK. They ensure that no aircraft can land or take off in the UK without a valid noise certificate. The regulations are based on the noise certification standards and limits issued by ICAO, (e.g. Chapter 3 and 4 aircraft).

They also provide a list of aircraft that are exempt from the ICAO noise certification. They were last amended in January 2021.

**Airspace Policy**

In 2017, the Secretary of State tasked the Civil Aviation Authority (CAA) with preparing and maintaining a coordinated strategy and plan for the use of UK airspace up to 2040, including modernisation. A framework has been established for how UK airspace can be improved to accommodate predicted future growth in aviation while addressing noise, emissions, and flight delay issues.

To support this the Government implemented a range of proposals including:

- A new Secretary of [State Call In power](#) on airspace modernisations that are of national importance. The power provides high-level direction and a democratic backstop on the most significant airspace modernisation decisions.
- Important changes to aviation noise compensation policy to improve fairness and transparency. This includes bringing compensation policy for airspace modernisations in line with policy on changes to aviation infrastructure, and considering locally agreed compensation for increased overflight due to an airspace modernisation.
- The creation of an Independent Commission on Civil Aviation Noise (ICCAN). The body would help ensure that the noise impacts of airspace modernisations are properly considered, and give communities a greater stake in noise management. ICCAN was set up as a new non-departmental public body of the Department for Transport (DfT). This body ran from 2019 until July 2021 when the Government decided to wind it down and redistribute its work between the DfT and the Civil Aviation Authority (CAA). The CAA has subsequently published an Environmental Strategy and set up an Environmental Sustainability Panel in April 2022.
- A new requirement for options analysis in airspace modernisation to enable communities to engage with a transparent airspace modernisation process, and ensure options such as multiple routes are considered.
- New metrics and appraisal guidance to assess noise impacts and their effects on health and quality of life. This will ensure noise impacts are considered much further away from airports than at present.



To support the delivery of this policy, the CAA issued guidance for changing UK airspace – [CAP1616](#). This is designed to ensure that it meets modern standards for regulatory decision-making, and is fair, transparent, consistent and proportionate. The process must be impartial, evidence-based and must take account of the needs and interests of all affected stakeholders. Seven stages are defined for carrying out an airspace change, with a focus on early engagement with communities to explore a range of possible options. The [CAA plans to review and update this guidance](#) by summer 2023.

Following [CAP1616](#), the CAA also published an [airspace modernisation strategy](#) in December 2018 to outline recommended industry initiatives, and a governance structure for the modernisation programme.

The DfT and CAA co-sponsor [airspace modernisation](#). The Airspace Change Organisation Group (ACOG) was established and is responsible for producing the [UK airspace change masterplan](#). This masterplan is currently moving from its second to third iteration.

**[Transport Act 2000 \(Part I\)](#)**

This establishes the framework for how the CAA operates and how air traffic services are provided.

**[Town and Country Planning Act 1990](#)**

This establishes the legal framework for how planning applications (including those relating to airports) are developed and how decisions on the applications are managed and made.

**[Planning Act 2008](#)**

This establishes the Infrastructure Planning Commission and the authorisation of projects for the development of nationally significant infrastructure, including airports.

**[National Planning Policy Framework](#)**

The National Planning Policy Framework (NPPF) sets out the Government’s planning policies for England, and how it expects those policies to be applied by local authorities. It was reviewed and updated in 2021. The NPPF sets out the approach to implementing policy. The Framework requires that planning policies and decisions should contribute to, and enhance, the natural and local environment. It seeks to prevent new and existing development from contributing to, or being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution.

It goes on to state that planning policies and decisions should also ensure that a new development is appropriate for its location, taking account of the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment. In doing so they should:

- Mitigate and reduce to a minimum, potential adverse impacts resulting from noise from new development, and avoid noise giving rise to significant adverse impacts on health and the quality of life.
- Identify and protect tranquil areas which have remained relatively undisturbed by noise and, as a result, are prized for their recreational and amenity value.

**[Noise Policy Statement England](#)**

The Noise Policy Statement for England (NPSE) (2010) sets out the long-term vision of Government noise policy. A policy vision was set in this document to: “Promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development.”

A number of objectives and principles were set to achieve this vision which have been taken into account in this Noise Action Plan. The NPSE also introduces two key concepts:

- The Lowest Observed Adverse Effect Level (LOAEL). This is the level above which adverse effects on health and quality of life can be detected.
- The Significant Observed Adverse Effect Level (SOAEL). This is the level above which significant adverse effects on health and quality of life occur.

The first aim of the NPSE states that significant adverse effects on health and quality of life should be avoided, while also taking account of the guiding principles of sustainable development.

The second aim of the NPSE refers to situations where the impact lies somewhere between LOAEL and SOAEL. It requires that all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life, while also taking account of the guiding principles of sustainable development. This does not mean that such adverse effects cannot occur.



## Local aircraft noise policy

### Sustainable Development Plan 2015

The 2013 Aviation Policy Framework continues to recommend that airport operators prepare masterplans that provide a clear statement of intent to enable future airport development to be given due consideration in local planning processes. Airport masterplans do not have a statutory status, but local planning authorities and other bodies take these plans into account when preparing regional and local policies and making planning decisions. The most recent masterplan for Stansted Airport, the Sustainable Development Plan<sup>4</sup> was published in 2015. It is supported by four detailed plans covering community, ground transport, land use and environment. It is expected that the Stansted Airport Sustainable Development Plan (SDP) will be updated in 2023.

Our SDP 2015 Environment Plan (part of the Sustainable Development Plan) sets the aim to be a 'responsible steward' of the environment and provides a commitment to continually improve our environmental performance and minimise the environmental impact of our operations. The chapter on noise in the SDP Environment Plan is consistent with the Noise Action Plan 2013-2018. This Noise Action Plan 2024-2028 will be considered as part of the process to update the Sustainable Development Plan and its Environment Plan.

### Planning policy

We work closely with local planning authorities when they are preparing their local development plans. This supports the Balanced Approach, and helps to make sure that local planning policies are in line with guidance set out in the National Planning Policy Framework.

Such policies can be found in the Uttlesford Local Plan 2005 and in the emerging replacement local plan.

### Planning conditions

In June 2021 planning permission was granted to Stansted Airport to serve up to 43 million passengers per year within the existing annual aircraft movement limit of 274,000 (of which no more than 16,000 can be cargo air transport movements (CATMs)). The planning permission includes a number of conditions which limit the area impacted by noise from the airport. Other relevant conditions are: a 'Section 106' obligation to provide an enhanced Sound Insulation Grant Scheme (SIGS) to minimise the impact of airport operations on people living closest to the airport, and a Community Fund which supports the activities of local community organisations. Information about our noise limits is provided in Chapter 8, *Noise controls*. Information about SIGS and the London Stansted Airport Community Fund is provided in Chapter 13, *Mitigation schemes*.

### Planning consultations

We send the noise contours we commission each year to the local planning authority to help them consider planning applications for a wide range of developments in the local area. We monitor applications for developments in areas close to the airport, and give the local authority information on noise issues and sound insulation where appropriate.

### Stansted Airport Consultative Committee

The Stansted Airport Consultative Committee (STACC) has 21 members representing local authorities, community groups and user groups. It meets four times a year to consider the airport's performance and to discuss any matters of concern. The Committee has three sub-groups, including the Environmental Issues Group (EIG) which considers noise performance and informs future noise strategy.

### Noise and Track Keeping Working Group

The Noise and Track Keeping Working Group (NTKWG) is convened by the airport. Membership of the Group includes the Department for Transport, NATS and representatives of local authorities near to the airport. The Chair of the Environmental Issues Group of STACC and STACC's Technical Advisor are also invited to NTKWG meetings. The NTKWG is a technical group which provides a forum for detailed consideration and discussion of noise-related issues, helping inform future noise strategy.



<sup>4</sup> See <https://www.stanstedairport.com/about-us/developmentplan/>



# 7. Airspace Change Programme





Airspace is a critical part of national infrastructure. Like the road and rail network, it plays a vital role in facilitating the movement of people and products quickly, safely and efficiently. Airspace enables connectivity and drives economic growth. Although the UK has some of the most congested and complex airspace in the world, the way it is managed has changed little since the 1950s.

### **Civil Aviation Authority Airspace Modernisation Strategy**

The Future Airspace Programme at London Stansted Airport forms part of the Civil Aviation Authority's (CAA's) wider Airspace Modernisation Strategy (AMS). Modernising UK airspace has the potential to bring several benefits, including reduced delays, greater reliability, more efficient operations, and the chance to build on the UK's already world-class aviation safety record. In addition, it presents an opportunity to address some of the wider impacts of aviation, such as noise and emissions.

As the national regulator, the CAA has responsibility for approving all changes to airspace. In December 2017, the CAA published its change process called [CAP1616](#): Guidance on the regulatory process for changing the notified airspace design and planned and permanent redistribution of air traffic. CAP1616 was most recently updated in March 2021. It sets out the seven stages that the CAA requires airports to complete to carry out modernisation of their airspace, including detailed guidance on the involvement of stakeholders together with local communities, when developing change proposals.

CAP1616 includes four 'gateways' where the CAA will assess the work undertaken by the change sponsor before allowing them to progress to the next stage of the process.





## London Stansted Airport Airspace Modernisation Programme

In December 2018, Stansted Airport completed Step 1A of the [CAP1616](#) process by submitting a [Statement of Need](#) to the CAA, setting out why an airspace change was necessary. Step 1B of the process required the identification of design principles to provide a framework for the subsequent design and evaluation of design options that address the issues and opportunities identified in the [Statement of Need](#) to the CAA. The process followed at Stansted to develop the design principles through engagement with affected stakeholders is set out in full in the report '[Step 1B Design Principles Report](#)' and its appendices. The eleven design principles agreed with our stakeholders include three related to noise:

- N1: To address the effects of aircraft noise, each route should seek to minimise the number of people overflown.
- N2: The use of multiple routes and/or other forms of respite, such as different time periods and balanced runway mode (when operationally viable), will be considered.
- N3: Where practical, our route designs should avoid, or minimise effects upon, noise sensitive receptors. These may include designated sites and landscapes (such as SSSIs and AONBs), cultural or historic assets, and sites providing care.

The Stansted ACP Stage 2 submission was submitted in February 2022 and subsequently approved by the CAA, enabling the airport to progress to Stage 3, which includes full public consultation. Full details of our Stage 2 submission can be found on the CAA's [airspace change portal](#).

## Airspace Change Organising Group

The Airspace Change Organising Group (ACOG) was set up by the CAA and the DfT in 2019 to coordinate the national programme of change, and to create a strategic national Masterplan. Iteration two of the Masterplan was published in January 2022. This set out the four geographical clusters of change determined by the location of airports' airspace structures, known as terminal manoeuvring areas (TMAs). Airports within each cluster currently have routes which interact to varying degrees, creating inefficiency. The Masterplan identifies and sets out the approach to addressing these regional interdependencies.

Stansted Airport forms part of the London Terminal Manoeuvring Area (LTMA). During Stage 3 we will continue to work with other sponsors, including NATS, to ensure that collectively we optimise operations with the LTMA. This will include providing information to NATS to inform its visualisation and development simulations, which will test the emerging concepts. It is likely that, to optimise the LTMA, trade-off decisions will need to be made between incompatible airport design options. Where this happens, we will undertake the necessary cumulative assessment of options in accordance with emerging guidance from ACOG. The completion of the work required at Stage 2 'Develop and Assess' has developed and refined the design options available at Stansted Airport, and has expanded the understanding of stakeholders' views on those options. Working with ACOG and the other airports within the LTMA, we will then establish a plan for full public consultation where we will consult on our shortlist of options.

## Finding more information about airspace modernisation

Updates on our progress continue to be made widely available in the community and through councils. Please visit page [www.stanstedairport.com/futureairspace/](http://www.stanstedairport.com/futureairspace/) or the [CAA website](#) to see updates as we move through the seven-stage process outlined in [CAP1616](#).





# 8. Noise controls





At London Stansted Airport we have a long track record of developing policies and taking action to minimise our effect on the environment. In relation to aircraft noise, we continue to work closely with our airline customers and our air traffic controllers so that together we can develop this work to provide real and lasting benefit for local communities and the environment.

The national policy for aircraft noise is summarised in Chapter 6. This policy has continued to evolve since the last Noise Action Plan.

Noise is regulated to varying extents at all UK airports. The approaches used include controls on the noise aircraft can emit on departure, limits on the area contained within noise contours, and restrictions on the types of aircraft that can operate or the times at which they can fly. The specific restrictions differ from airport to airport, according to how busy they are, the location of their flight paths and the types of aircraft that use them.

Although there are maximum noise limits for occupational noise exposure, there is no limit defined for environmental noise, including aviation noise. However, in order to assess the adverse impact of aircraft noise in the UK, Government policy has established that the Lowest Observed Adverse Effect Level (LOAEL) for an average summer's day is 51 dB  $L_{Aeq,T}$  16-hour; for an average summer's night the LOAEL is 45 dB  $L_{Aeq,T}$  8-hour. This does not mean that noise above these levels will not be allowed, but it does mean that noise will be an important factor in considering planning applications within that area.

Currently our long-term noise aim is to 'limit and, where possible, reduce the number of people affected by noise as a result of the airport's operation and development'. We have reviewed this approach, including considering the policy changes summarised earlier in our Noise Action Plan, and we believe our aim is still appropriate and in line with existing and emerging Government policy.

We report progress annually, providing performance information against key noise indicators.

Our approach is further supported by certification since 2005 to the international standard ISO 14001 for environmental management. Certification to this standard demonstrates that our environmental management system, which includes the management of noise, fulfils the requirements of ISO 14001 and has been audited by independent auditors.

In developing our approach to noise management, we have adopted a Balanced Approach, as required by UK and international policy. We recognise the importance of working collaboratively with our stakeholders to explore options available to minimise the impact of noise from aircraft operations.

## Noise-related fees and charges

To incentivise the use of quieter aircraft and the flying of aircraft at less sensitive times of the day, we set the fees we charge airlines according to the noise certification of the aircraft they operate. Aircraft certified to older, noisier standards pay more than aircraft which meet newer, quieter standards. Aircraft operating at night between 23:00 and 06:00 pay a premium compared to those that fly during the daytime.



### Airport planning conditions

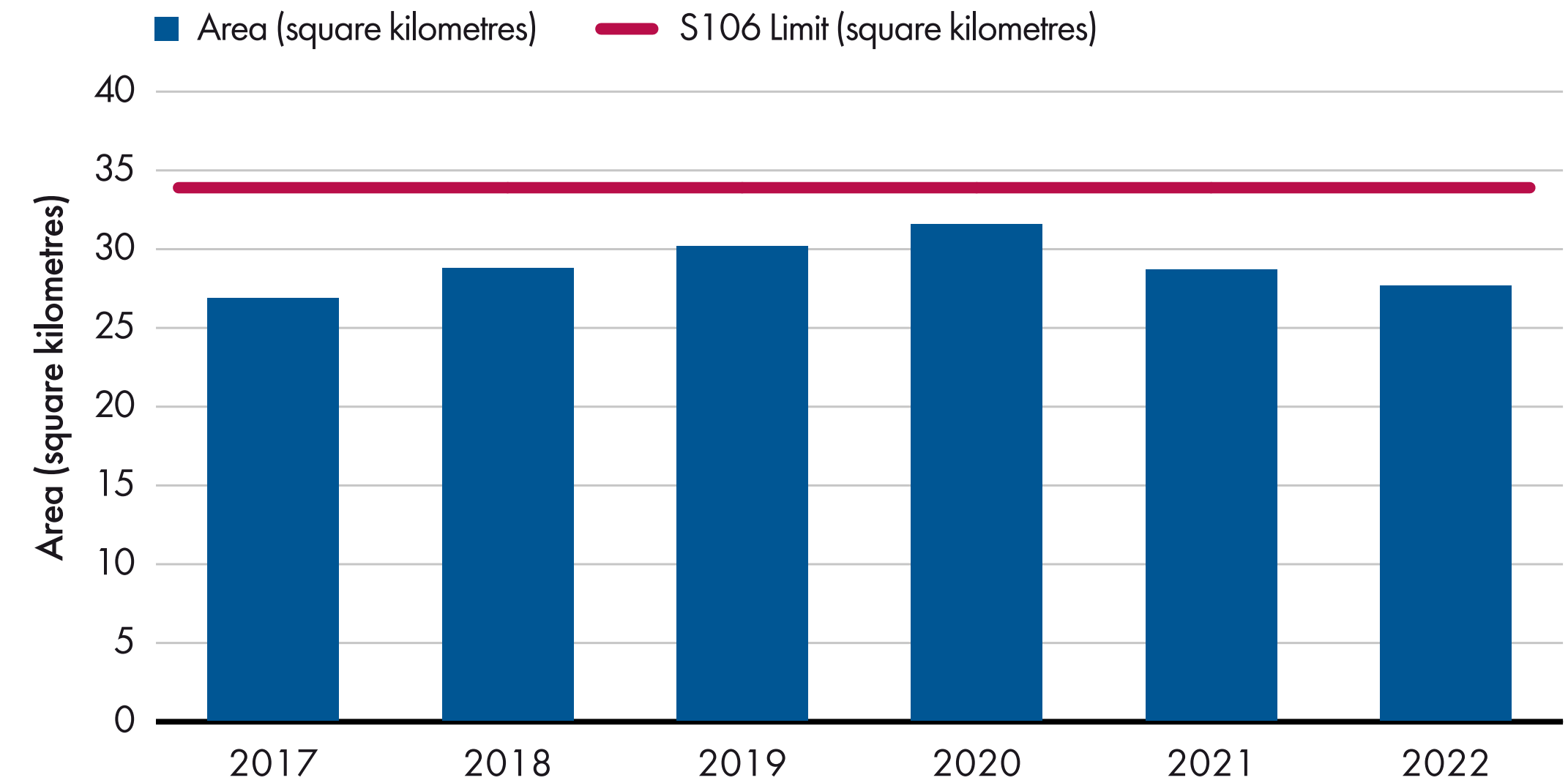
In June 2021 planning permission was granted to Stansted Airport to serve up to 43 million passengers per year within the existing annual aircraft movement limit of 274,000 (of which no more than 16,000 can be cargo air-transport movements (CATMs)). The planning permission includes a number of conditions which limit the area impacted by noise from the airport. These are summarised in Table X.

Figure 11 shows that we are operating well within our current noise limit. Annual reports on compliance with this limit are submitted to the local planning authority.

Table 1. Planning controls that limit the area impacted by noise from aircraft operating at Stansted Airport

|  | DAYTIME (07:00 TO 23:00)  | NIGHT-TIME (23:00 TO 07:00)  |
|--|---|--|
| <b>Current limit</b>   | The area contained within the 57dB L <sub>AeqT</sub> 16-hour contour shall not exceed 33.9km <sup>2</sup> | N/A  |
| <b>New limit:</b> applies from the first year when passenger numbers exceed 35 million                             | The area contained within the 54dB L <sub>AeqT</sub> 16-hour contour shall not exceed 57.4km <sup>2</sup> | The area contained within the 48dB L <sub>AeqT</sub> 8-hour contour shall not exceed 74.0km <sup>2</sup> |
| <b>New limit:</b> applies from 2032 or the first year when passenger numbers reach 43 million, whichever is sooner | The area contained within the 54dB L <sub>AeqT</sub> 16-hour contour shall not exceed 51.9km <sup>2</sup> | The area contained within the 48dB L <sub>AeqT</sub> 8-hour contour shall not exceed 73.6km <sup>2</sup> |

Figure 11. Performance against planning controls that limit the area impacted by noise from aircraft operating at Stansted Airport



The future growth of aircraft activity will remain within the agreed noise limits. This will be possible as a result of airlines’ transition to more modern, quieter aircraft. We will prioritise actions that create the right incentives for airlines to switch to quieter aircraft. We expect these measures will make sure this transition is as fast as can be practically achieved.



## Designation by the Secretary of State under Section 80 of the Civil Aviation Act 1990

Stansted Airport is one of three airports that are designated by the Secretary of State for Transport using powers detailed in Section 80 of the Civil Aviation Act 1982. The other designated airports are Heathrow and Gatwick.

Using powers detailed in Section 78 of the Act, the Secretary of State imposes limits on the number of night flights and the noise generated by those flights. Further information is provided in Chapter 12, *Night noise*.

*Our Noise Action Plan 2024-2028 sets out 53 actions. In combination, we believe that these measures will ensure we continue to deliver our long-term noise aim.*

Action table 2. Noise Action Plan 2024-2028: Noise controls

| ACTION NUMBER | CONTROL                        | ACTION   |
|---------------|--------------------------------|--|
| NAP 1         | Airport planning conditions    | We will ensure that the area impacted by noise from aircraft operations remains within the noise-contour areas detailed in our planning agreements. Performance against these limits will be monitored annually and reported to our Noise and Track Keeping Working Group and the local planning authority.                                    |
| NAP 2         | Noise-related fees and charges | We will review our operating fees and charges to incentivise the quietest possible fleet. We will consider moving to a charging system based on the quota count rating of aircraft and review the charges for night operations. This review will include developing and proposing a penalty scheme which applies to unscheduled night flights. |





# 9. Arriving aircraft





Noise from arriving aircraft is mainly generated by air flowing over the structure of the aeroplane. This is because the engines are normally operating at low thrust settings in this stage of flight.

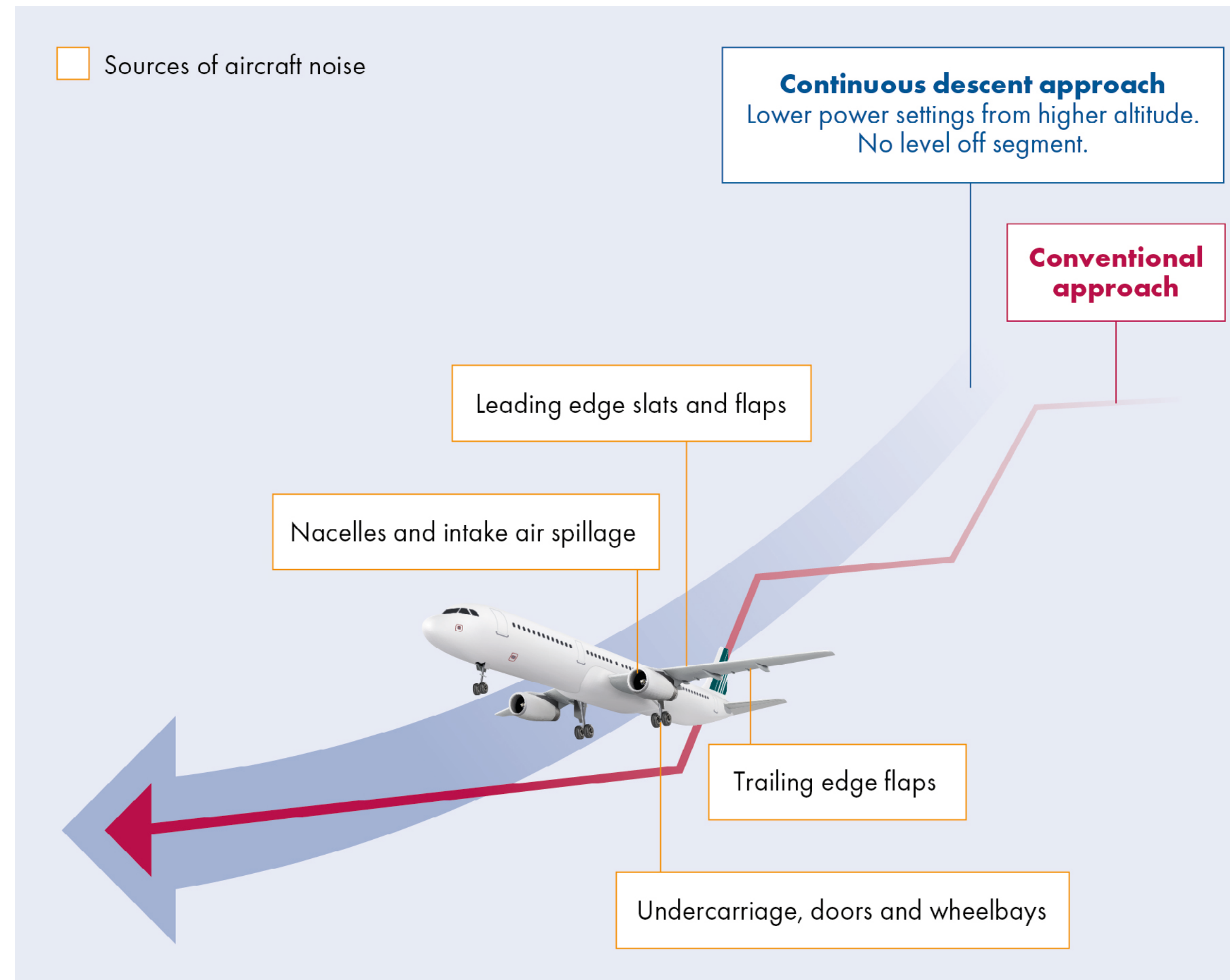
The noise is more audible the lower the aeroplane flies and the closer it gets to the airport. Noise also increases as the pilot lowers the landing gear and flaps in readiness for landing.

Our actions seek to minimise noise from arriving aircraft whilst meeting all flight safety requirements.

### Continuous descent approach

The primary method of minimising noise impacts is with a continuous descent approach (CDA), sometimes referred to as continuous descent operations (CDOs). CDAs require air traffic controllers to work closely with pilots, providing accurate information about the distance to touchdown so that the aircraft can remain higher for longer, reducing the need for engine thrust associated with periods of level flight. CDAs, which can be seen in Figure 12, have been shown to reduce arrival noise by up to 5 decibels (dB).

Figure 12. Sources of aircraft noise on arrival and benefits of a continuous descent approach



At London Stansted Airport, we have a target that 94% of aircraft arriving on Runway 22 will perform a CDA. The complexity of London airspace means that it is often not possible for aircraft arriving on Runway 04 to perform a CDA. Airspace constraints require air traffic controllers to lower aircraft approaching Stansted Airport earlier than necessary to separate them from aircraft arriving at or departing from other London airports. However, we work with air traffic controllers to meet an informal target that, during the core night period (23:30 to 06:00) when London airspace is less congested, 65% of aircraft arriving on Runway 04 will perform a CDA.

Through our Flight Operations Committee (FLOPSC) and Noise and Track Keeping Working Group (NTKWG), we have worked with our airline and air traffic control partners to identify opportunities to minimise noise on arrival and increase the proportion of arriving aircraft that achieve a CDA. During the period of our Noise Action Plan 2019-2023, we recorded increased performance on both Runway 22 and Runway 04, exceeding our targets. We expect that the proportion of aircraft performing a CDA, particularly when arriving on Runway 04, will increase when London airspace is modernised. Information about airspace modernisation is provided in Chapter 7, *Airspace Change Programme*. Information about our CDA performance is shown in Figures 13 and 14.



Figure 13. Annual continuous descent approach compliance (Runway 22, 24-hour day)

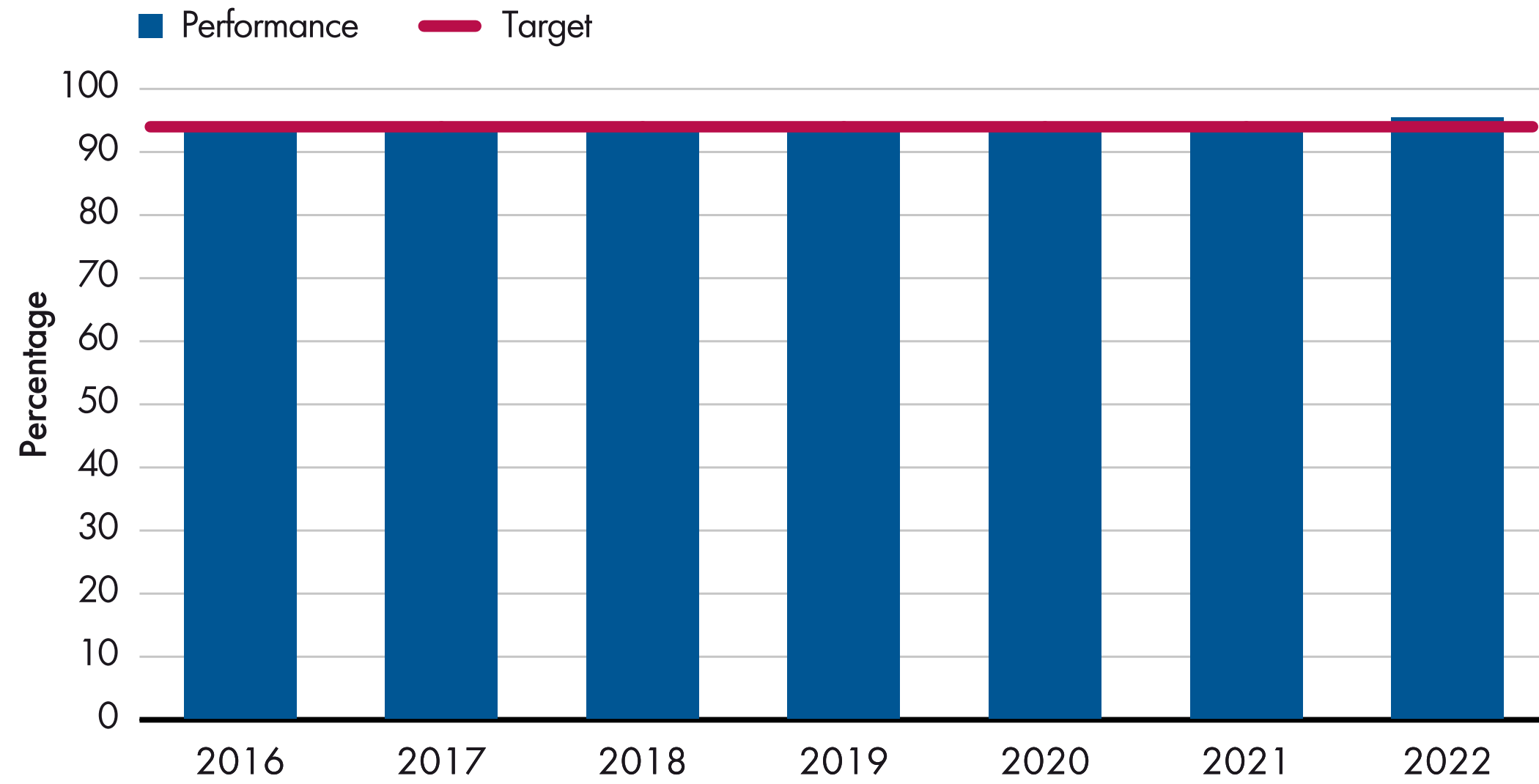
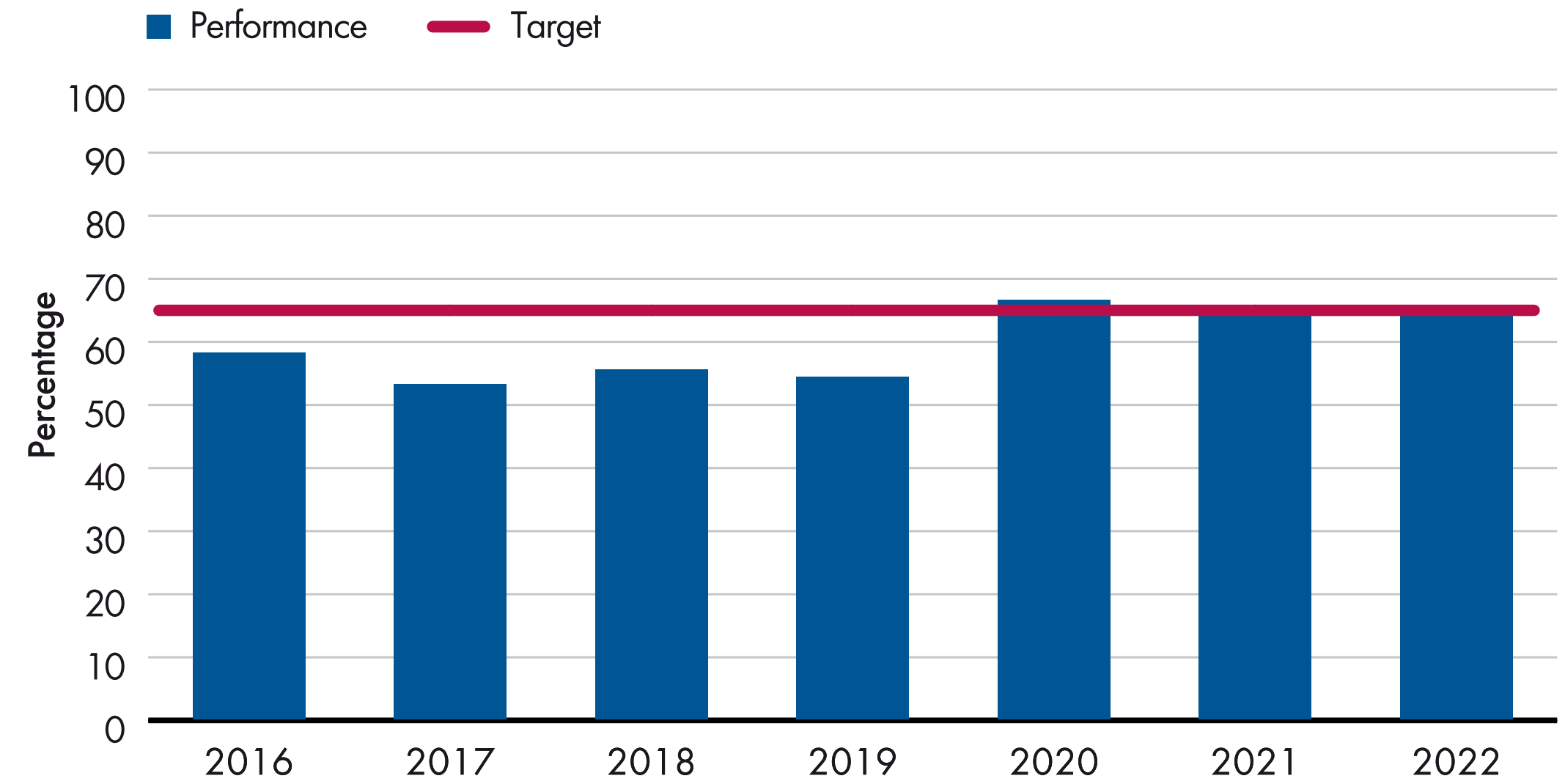


Figure 14. Annual continuous descent approach compliance (Runway 04, core night, 23:30 to 06:00)





## Low-power, low-drag approaches

Low-power, low-drag approaches involve maintaining a streamlined aircraft configuration – one that generates less engine and airframe noise – for as long as possible. To do this, pilots delay lowering landing gear and deploying flaps until the aircraft gets closer to touchdown – closer to the point where the aircraft must be fully configured for landing. The distance of this point from the airport varies according to aircraft type. It depends on their performance characteristics, the need to minimise the likelihood of a go-around procedure (when the pilot has to abort the landing and fly the aircraft around to make another approach), and the requirement to maintain aircraft stability on approach.

In December 2022, we sent a questionnaire to airlines who operate at Stansted Airport. The questionnaire explored operational procedures to reduce noise, including low-power, low-drag approaches and single-engine taxiing. The survey confirmed that all operators at the airport use low-power, low-drag approaches.

## Instrument landing system joining point

At Stansted Airport, our runway is equipped with a Category 3B instrument landing system (ILS). An ILS emits radio signals, including a glide slope, that guide an aircraft to land safely on the runway. The ILS is particularly important during poor weather when pilots may not be able to see the runway.

The point at which an aircraft connects to the ILS is known as the joining point. To reduce noise disturbance from aircraft using the ILS to approach the airport, we require pilots to remain at an altitude of at least 2,000ft when they join the ILS glidepath. During the core night period (23:30 to 06:00), we require NATS to direct aircraft to join the ILS glidepath at a minimum altitude of 3,000ft and at a distance of at least 10 nautical miles from landing.

Our performance against these three criteria for 2022 is summarised below:

- Daytime 2,000ft joining point: 99.69%
- Night-time 3,000ft joining point: 96.34%
- Night-time 10 nautical mile joining point: 92.00%

As part of our Noise Action Plan 2019-2023, we considered the use of emerging ground-based augmentation system (GBAS) technology to reduce the noise impact of arriving aircraft. GBAS would increase the angle at which aircraft approach the airport. Our assessment concluded that GBAS technology is not able to replicate the functionality of our current ILS. This is because the technology is not currently certified for use by aircraft arriving during low visibility. As part of our future airspace programme, we will consider all viable options to minimise noise from arriving aircraft.

## Helicopters

Following feedback from residents in Birchanger, in 2016/17 we developed and tested new arrival and departure procedures to minimise the impact of helicopters operating at Stansted Airport. These procedures put helicopters on a route that avoids Birchanger and Stansted Mountfitchet by passing between them. With the full support of those communities, the procedures were adopted and published, along with revised charts in the Aeronautical Information Publication for Stansted Airport. Through collaboration with air traffic control partners and helicopter operators, we have been pleased to see a reduction in the number of helicopter-related complaints.



Action table 3. Noise Action Plan 2024-2028: Arriving aircraft

| ACTION NUMBER | CONTROL                                      | ACTION   |
|---------------|--|--|
| NAP 3         | Continuous descent approach (Runway 22)      | Aircraft approaching the airport on Runway 22 are expected to use continuous descent approaches (CDAs). We will work with our service partners to improve CDAs at Stansted Airport. Our target is to maintain that at least 94% of aircraft arriving on Runway 22 achieve a CDA.   |
| NAP 4         | Continuous descent approach (Runway 04)      | We will promote continuous descent approaches by aircraft arriving on Runway 04. We will formalise a target for continuous descent approaches to Runway 04 following the implementation of airspace modernisation in the London area.  |
| NAP 5         | Low-power, low-drag approaches               | Aircraft approaching the airport are expected to keep noise disturbance to a minimum by using low-power, low-drag approaches. We will undertake a survey of our airlines to monitor and maintain the use of these procedures, and share the results with our Noise and Track Keeping Working Group and Environmental Issues Group. We anticipate this being completed in 2026. |
| NAP 6         | Instrument landing system approach (daytime) | Aircraft using the instrument landing system (ILS) must not descend below 2,000ft before joining the glide path. We will report ILS joining-point compliance to NATS monthly, and share the results with our Noise and Track Keeping Working Group.  |
| NAP 7         | Instrument landing system joining point      | We will consider opportunities to reduce the noise impact of arriving aircraft as part of our Future Airspace Programme, including reviewing the ILS joining point.  |





# 10. On the ground



This chapter considers aircraft ground movements. Ground movements relate to the operations which take place between the runway and the passenger and cargo terminals, and while aircraft are being serviced between flights.

At London Stansted Airport we already have a range of controls in place to minimise ground noise at the airport. These are published in the Aeronautical Information Publication (AIP) and cover the use of reverse thrust when aircraft land, reduced engine taxiing, the use of aircraft auxiliary power units (APUs) and engine testing. Additionally, we have invested more than £6 million in new Airport Collaborative Decision Making (A-CDM) technology to make the operation more efficient and to reduce the time an aircraft uses its engines while on the ground.

Information about these initiatives is provided in this chapter. We will continue to monitor best practice and developments at other airports, working with our partners to identify opportunities to implement these best practices to promote improvement in ground operations at Stansted Airport.

## Reverse thrust when aircraft land

One of the ways to slow an aircraft down immediately after landing is by using 'reverse thrust'. This is where the thrust from the engines is directed forwards to produce a braking action. Although the brakes of modern aircraft are far more efficient than they once were, reverse thrust may still be needed and can cause a noise disturbance to communities close to the airfield. To try to keep the disturbance to a minimum, we discourage the use of reverse thrust, particularly at night.

## Reduced engine taxiing

Aircraft engines can produce large amounts of thrust. Thrust is used to fly the aircraft in the air and to taxi the aircraft when it is on the ground. With all aircraft engines running, even at very low power settings, the thrust produced is often more than is needed to move the aircraft along the ground. There are times when the conditions allow an aircraft to turn off an engine to further reduce the thrust used while taxiing to and from the runway. This is called reduced engine taxiing (RET) and is already a commonly used procedure to reduce noise and emissions at Stansted Airport.

In 2022, we conducted a survey of airlines operating at the airport to better understand the use of RET and how it is embedded in their operations. With fuel savings acting as an incentive, feedback suggested that airlines already use RET on arrival at Stansted Airport. RET is also sometimes performed by departing aircraft. However, the ability to perform RET is dependent upon a number of factors including the weather, the weight of an aircraft and the expected taxi time – as airlines must ensure the engines are running for a warm-up or cool-down period defined by manufacturers. At Stansted Airport, the efficient airfield design means that the time taken to taxi to an aircraft's parking stand after landing on Runway 04 is sometimes too short for airlines to perform a RET. Although aircraft engines are getting quieter, newer engine types have a longer cool-down time on arrival.

## Ground power

For a period of time immediately before take-off and shortly after landing, an aircraft still needs electrical power to maintain on-board systems and provide ventilation to the cabin. To maintain that power while the main engines are turned off, most modern jet aircraft are fitted with an auxiliary power unit (APU). The APU is a small engine, usually located in the tail of an aircraft. Like all engines, an APU generates noise and emissions. An alternative to using the APU is to use ground power units (GPUs) or fixed electrical ground power (FEGP). GPUs and FEGP provide electrical power to aircraft systems, enabling aircraft to shut down their main engines and APU.

At Stansted Airport, our FEGP is supplied by renewable electricity. We recently received approval to construct a solar farm at the airport which will help power airport operations using renewable energy generated on-site.

## Engine testing

Aircraft maintenance is an essential activity at any airport. Sometimes it is necessary to test aircraft engines during or after maintenance work has been carried out. To limit the noise effects of engine testing, we have introduced specific controls. These include:

- Limiting the duration of idle-power engine runs conducted on an aircraft parking stand to three minutes in length.
- Requiring engine testing above idle power to be conducted within the purpose built engine test facility we have installed to attenuate noise.
- Prohibiting engine testing above idle power between the hours of 23:00 and 07:00 (including helicopters).

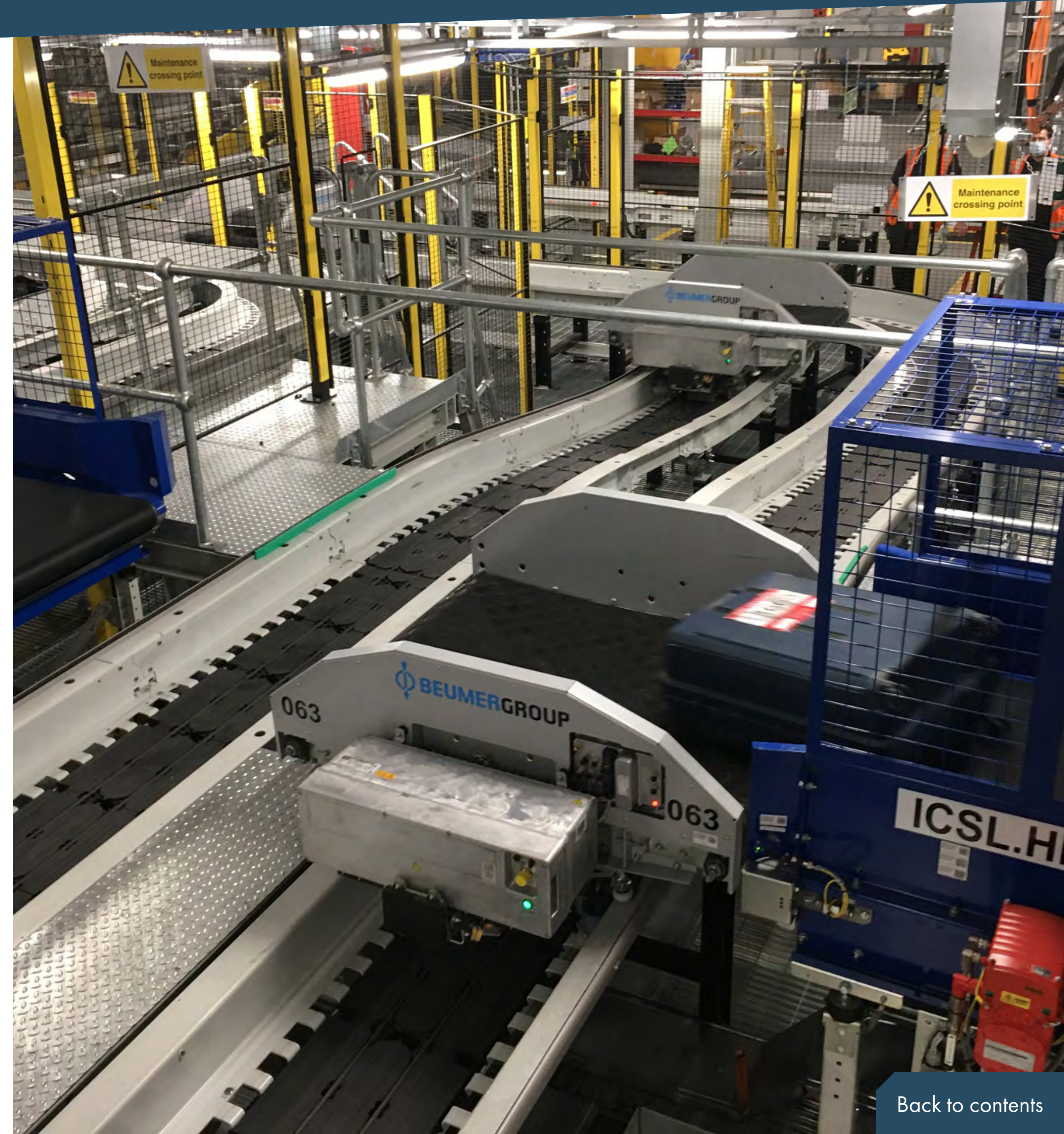


## Airport collaborative decision making

We have invested over £6 million in industry-leading A-CDM tools which aim to improve the efficiency and resilience of airport operations. These tools optimise the use of resources and improve the predictability of air-traffic flows. A-CDM uses detailed performance information about scheduled and actual operations to enable aircraft to leave their parking stand and start their engines at the optimum time for their departure. As a result, A-CDM reduces the time an aircraft is stationary at the runway hold with its engines running, which reduces ground noise and emissions.

Action table 4. Noise Action Plan 2024-2028: On the ground

| ACTION NUMBER | CONTROL  | ACTION  |
|---------------|--|---|
| NAP 8         | Reduced engine taxiing                         | We will consult with our airline partners to better understand the capabilities of new aircraft and engine types to implement reduced engine taxiing on arrival and departure.  |
| NAP 9         | Minimising the use of auxiliary power units    | We will maintain published guidance on the use of fixed electric ground power (FEGP) and monitor the non-essential use of auxiliary power units (APUs).   |
| NAP 10        | Engine testing                                 | We will maintain our controls on engine testing and carry out a review of our engine-testing procedures. We will explore options for how these can be improved to reduce noise impacts on local communities.  |
| NAP 11        | Airport Collaborative Decision Making (A-CDM)  | We will report to the Environmental Issues Group and Noise and Track Keeping Working Group our progress implementing Airport Collaborative Decision Making (A-CDM) and the benefits this offers.  |
| NAP 12        | Further opportunities to minimise ground noise | In 2026 we will undertake a survey of our airlines and the companies which support airlines' ground operations, aiming to identify opportunities to further minimise the noise impacts of aircraft on the ground. We will report the results to our Noise and Track Keeping Working Group and Environmental Issues Group. |





# 11. Departing aircraft





Noise from departing aircraft is generally the most intrusive for people living near the airport. The largest source of departure noise is from the aircraft engines which are operating closer to their maximum power on take-off and during their initial climb out of the airport.

In addition to encouraging the use of quieter aircraft, which reduce noise at source, we use a range of technological, practical and financial techniques to minimise the level of departure noise heard by people living and working near the airport. Our two main methods are noise preferential routes and continuous climb departures.

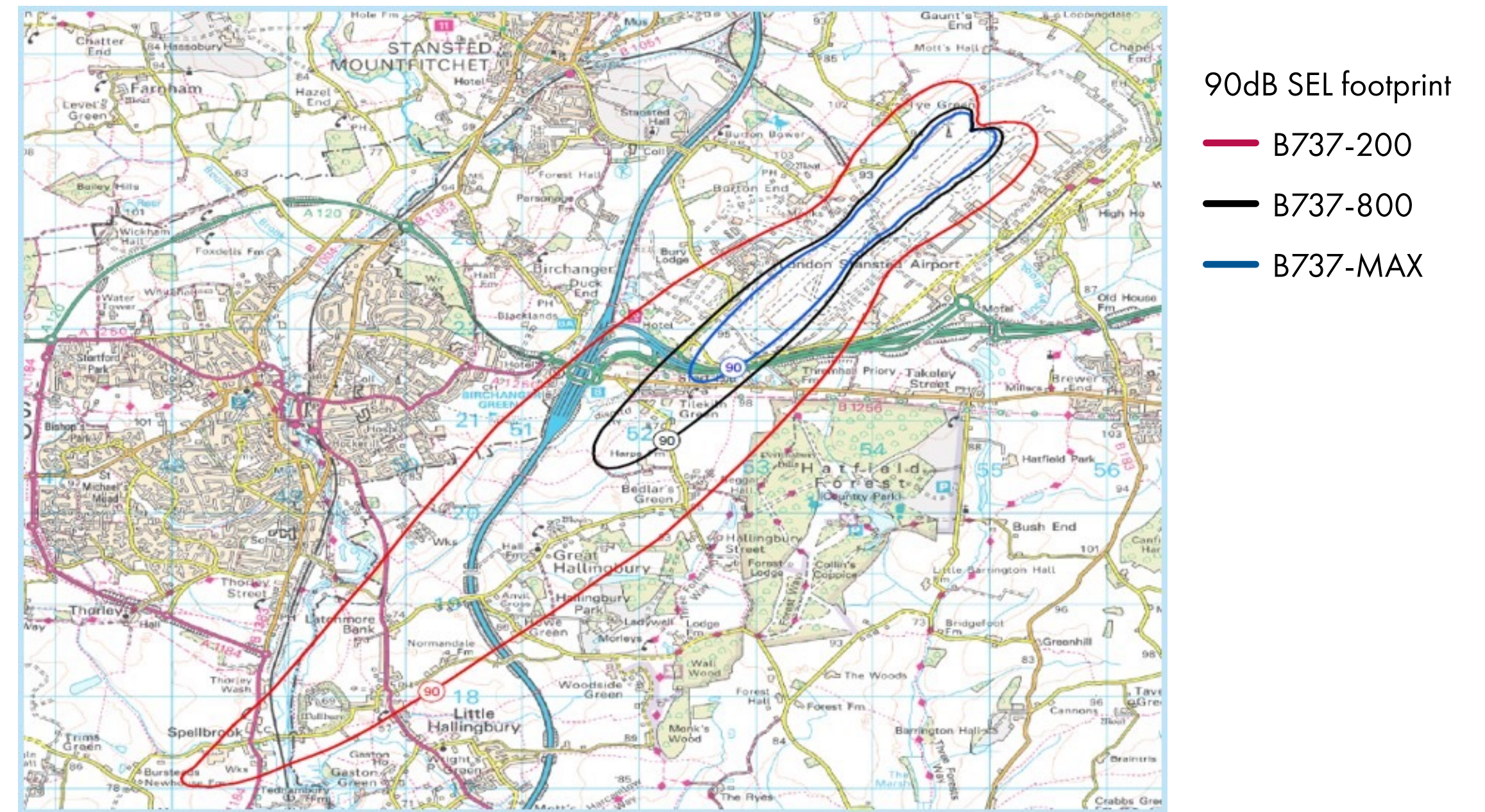
### Reducing noise at source

Airlines operating at London Stansted Airport have invested significantly in new aircraft which are quieter and more fuel efficient. The chapter on *Noise controls* sets out our approach to how we use noise-related fees and charges to incentivise the use of quieter aircraft at our airport.

During the period of our Noise Action Plan 2019-2023, we welcomed the introduction to regular service at Stansted Airport of the latest narrow-bodied Airbus and Boeing aircraft. These Boeing 737 'Max' and Airbus 'Neo' aircraft typically serve routes to and from Europe. Their advanced engine designs represent the best available technology. In 2022, these aircraft collectively accounted for 16% of our flights. We expect this proportion to increase as our airline partners receive more of the aircraft they have ordered.

Our monitoring shows that use of these newer aircraft significantly reduces the noise generated by departing aircraft. For example, our analysis shows that Boeing 737-8200 (Max) aircraft are at least 3dB quieter than the previous generation 737-800 aircraft operating the same routes. This noise improvement is additional to the benefit of historic fleet investment. To illustrate progress over the last 20 years, Figure 15 shows the reduction in size of the area of the 90dB SEL noise contour for the new Boeing 787-8200 compared to its Boeing 737-800 predecessor and the even earlier Boeing 737-200.

Figure 15. Reduction in noise footprint with newer aircraft technology





## Minimising noise impacts through departure procedures

### Noise preferential routes

A noise preferential route (NPR) is one that directs an aircraft along an agreed route to avoid areas of population. At Stansted Airport, there are three NPRs from each end of the runway. These routes were set in the 1980s by the UK Government following public consultation. The NPRs at Stansted Airport are called Clacton, Detling and Buzad. Each NPR is a corridor with a centre line and an area of tolerance to either side. The maximum width of the NPR is known as a 'swathe'. At Stansted Airport the Government has defined swathes which extend 1.5km either side of the NPR centre lines. All flights operating within the swathe are determined to be on-track. The percentage of flights following our NPRs has become a key performance indicator for us.

Depending upon wind conditions, departing aircraft will use either Runway 04 or Runway 22. The NPR that each departing aircraft then follows depends upon its final destination. A map of our NPRs is shown in Appendix C.

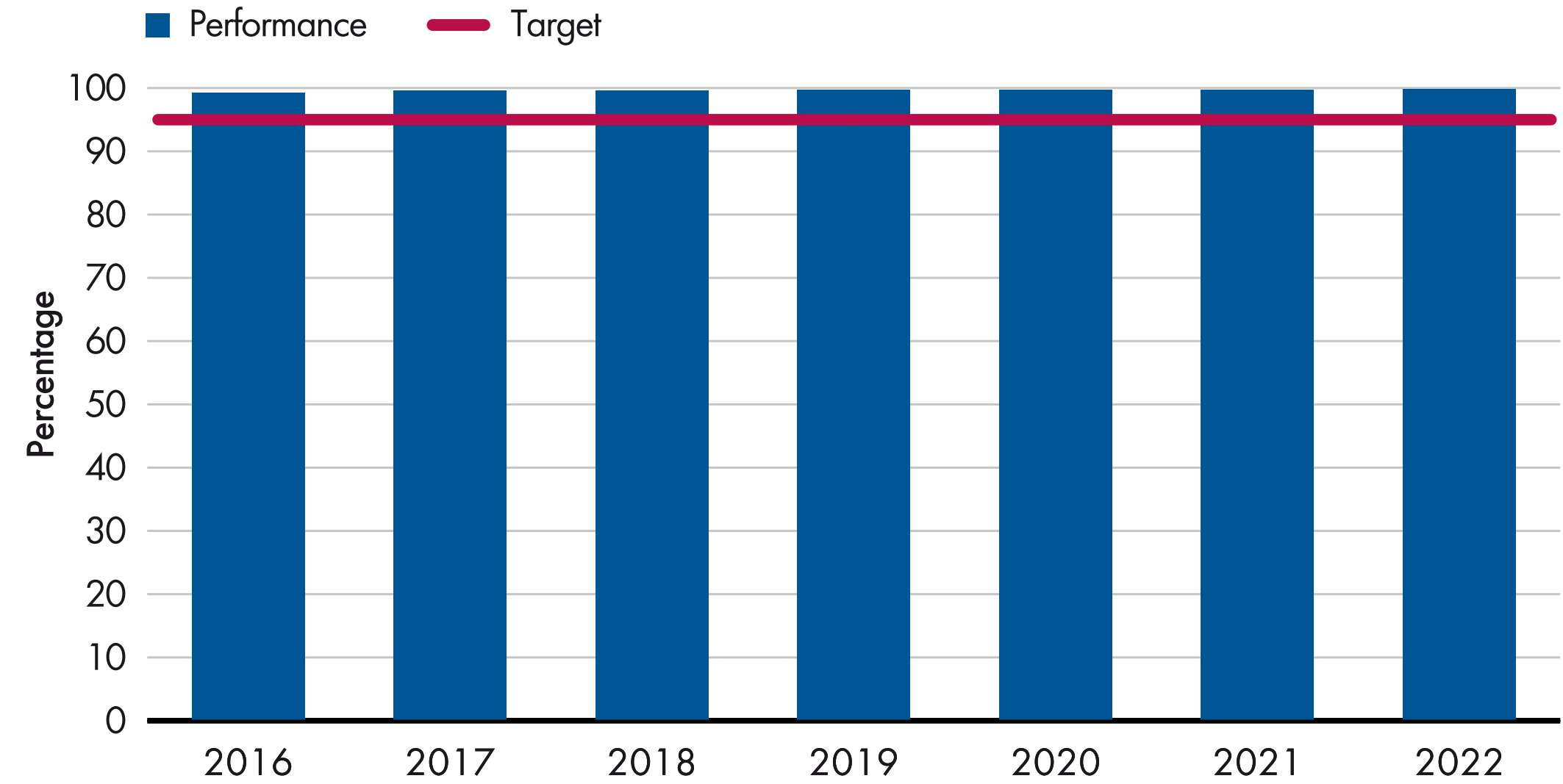
Aircraft departing from Stansted Airport are required to remain within our NPRs until they reach an altitude of 4,000ft (or 3,000ft for aircraft following the Buzad NPR between 06:00 and 23:30). When aircraft reach these altitudes they can be directed to their onward route by air traffic control. Sometimes aircraft have to fly alternative routes at lower altitudes, for example to maintain safe operations during poor weather.

We monitor the tracks flown by all departing aircraft, assessing compliance with our NPRs. We have a target that 99% of all departing aircraft should remain within their NPR and that compliance with each individual NPR will meet or exceed 95%.

To encourage greater compliance with the NPRs we have the ability to fine airlines that persistently fly outside the NPRs. Funds raised from these fines are donated to the London Stansted Airport Community Fund. In 2022, we increased the level of track-compliance fines. Daytime fines (07:00 to 22:29) rose by 33% to £1,000 and night-time fines (23:00 to 06:59) rose by 50% to £1,500.

By collaborating with our air traffic control and airline partners we have consistently achieved compliance rates of more than 99%, and recorded further increases during the period of our Noise Action Plan 2019-23. Figure 16 shows NPR compliance.

Figure 16. Track keeping compliance, 3km-wide swathe, 2016 to 2022



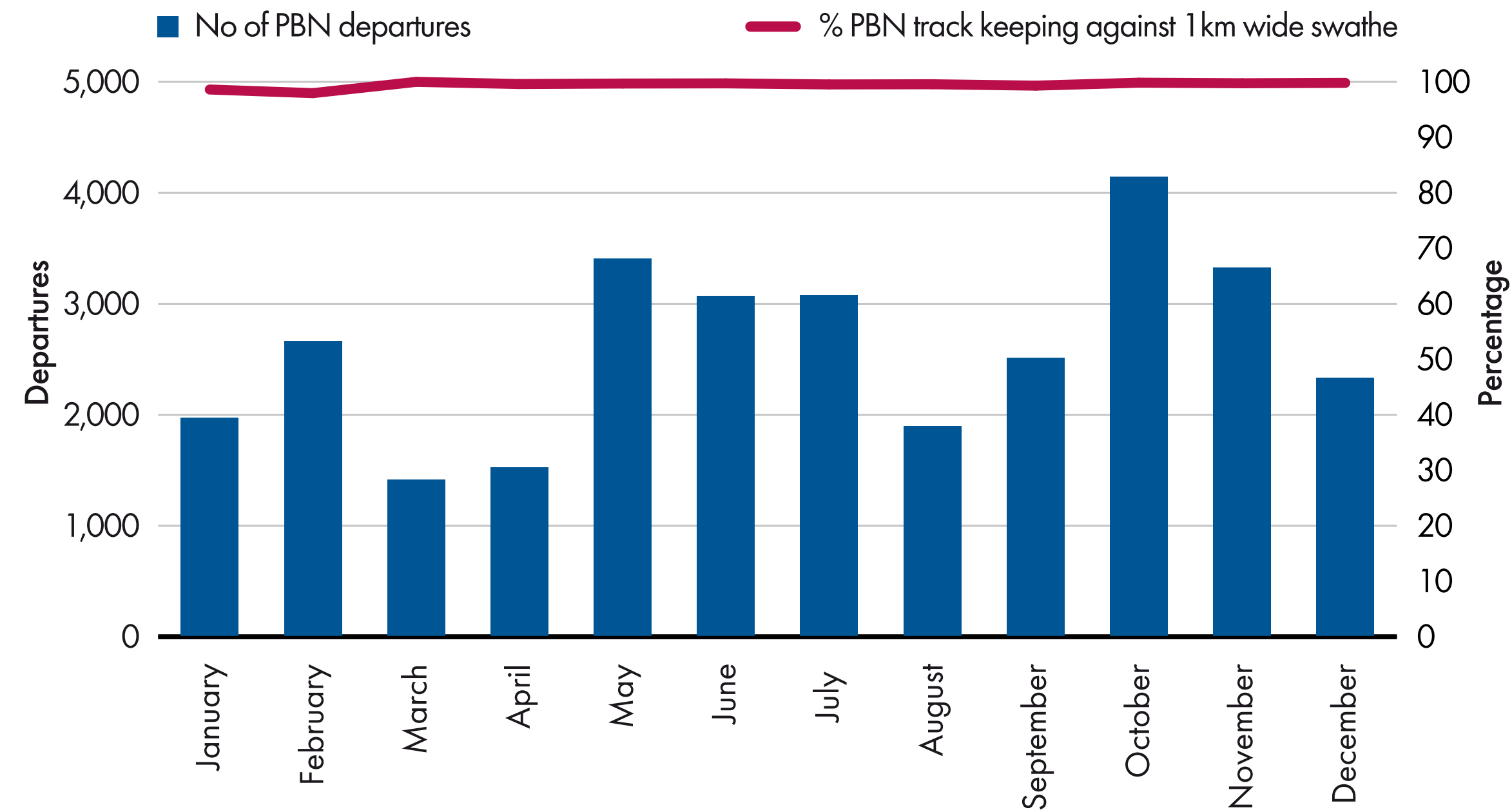


**Performance-based navigation**

Following feedback from local communities, in 2014 we began a project to introduce alternative, performance based navigation (PBN) departure procedures for airlines using the Runway 22 Clacton and Runway 04 Detling departure routes. The new procedures, which were made permanent in 2018, gave modern aircraft the ability to use their on-board satellite navigation systems to fly our published departure routes more accurately. Using better technology, they could overfly a narrower swathe (and therefore fewer people) compared to flying the full NPR swathe. Stansted Airport was the first in the UK to trial and permanently implement this sort of departure procedure.

We monitor performance against our PBN departure routes, assessing compliance of departing aircraft against a swathe that extends just 500m either side of published NPR centreline. Our monitoring shows that, in 2022, 99.48% of aircraft following our PBN departure routes remained within the narrower swathe. They overflew an area that’s only one third of the width of our traditional, full width departure routes. Track compliance for aircraft following our PBN departure routes is shown in Figure 17.

Figure 17. Compliance with performance-based navigation departure routes, 1 km wide swathe, 2022



The experience we gained from developing and implementing our initial PBN departure routes is helping inform our Future Airspace Programme. More information about this Programme is provided in the chapter on the *Airspace Change Programme*.

**No-fly zones**

The noise abatement procedures we issue through the UK Aeronautical Information Publication provide airlines with the locations of noise sensitive areas – the no-fly zones – that we want them to avoid. Our no-fly zones cover Sawbridgeworth, Stansted Mountfitchet, Bishop’s Stortford and the St Elizabeth’s Centre. While it is not always possible to avoid overflying these locations, our monitoring shows that in 2022 99.9% of aircraft avoided our published no-fly zones.

**‘1,000 feet rule’**

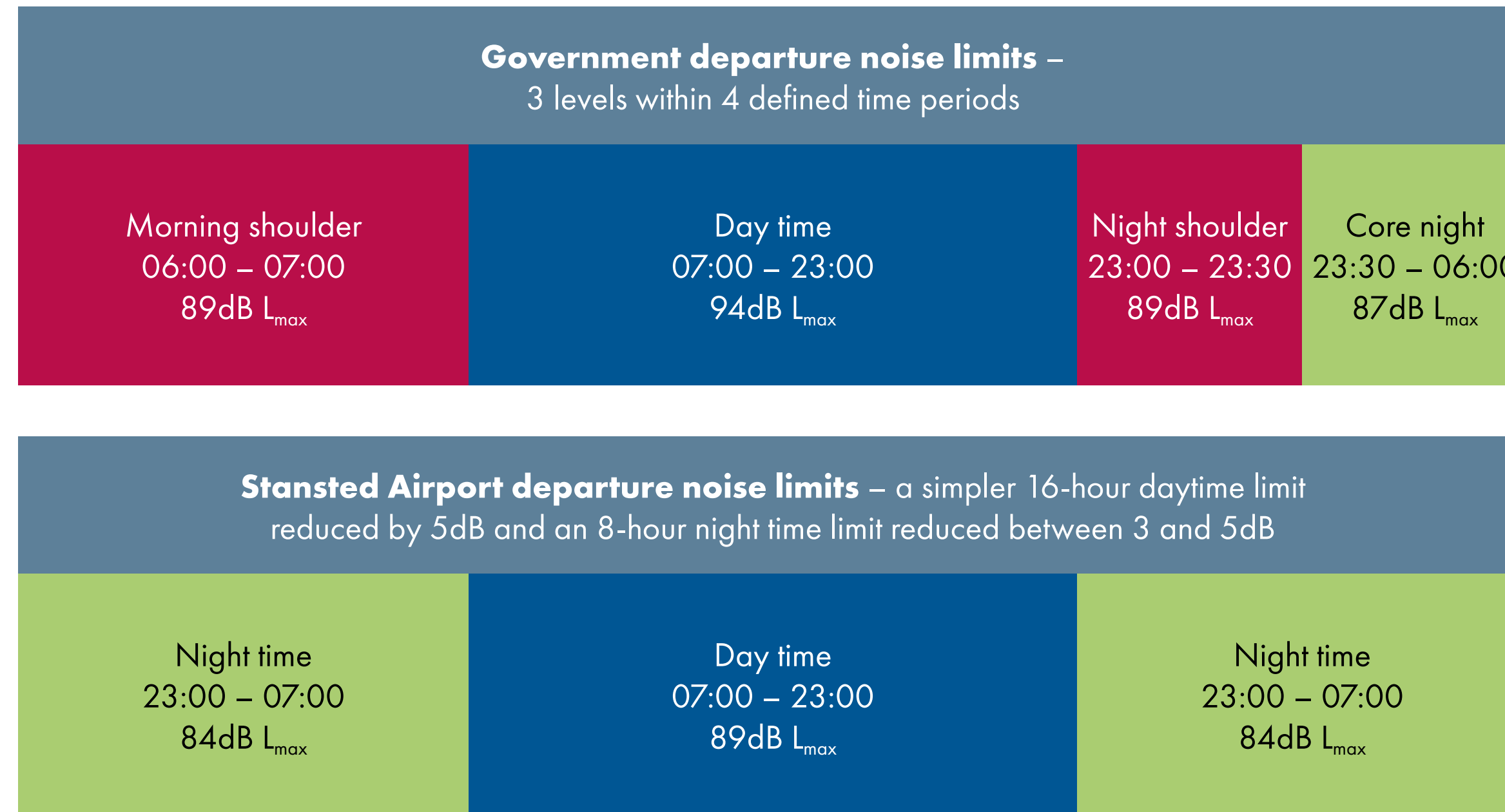
Our ‘1,000 feet rule’ requires aircraft to achieve a minimum height of 1,000ft by the time they reach a distance of 6.5km from the start of their take-off roll. This 6.5km marker relates to a measurement point defined in aircraft certification standards set by the International Civil Aviation Organization (ICAO). Our monitoring demonstrates that in 2022, 99.9% of departing aircraft fulfilled this requirement, and that most modern aircraft reach a height of around 1,500ft by this point.



## Departure noise limits

As a designated airport, Stansted Airport is subject to noise limits set for departing aircraft by the Government. In our Noise Action Plan 2019-2023 we detailed actions for us to work with the Government to implement a simpler and more stretching set of departure noise limits. These actions have been completed and, following approval from the Government, we have since May 2022 been operating two departure noise limits: a lower daytime limit (07:00 to 23:00) and a lower night-time limit (23:00 to 07:00). Figure 18 shows the new departure noise limits which reduce noise by up to 5dB.

Figure 18. Stansted Airport noise limits showing improvements implemented in May 2022



We measure compliance with departure noise limits at eight fixed noise monitors. They are sited within our local communities at each end of the runway; they are placed where they can measure noise levels 6.5km from the start of an aircraft’s take-off roll. This approach is consistent with noise certification standards set by the International Civil Aviation Organization (ICAO). Aircraft that exceed our departure noise limits by up to 3dB are fined £1,000 for each infringement. For each additional decibel or part decibel above the 3dB level, we levy a further fine of £250 during the day and £1,000 during the night. Money raised from fines against airlines which exceed our departure noise limits is donated to the London Stansted Airport Community Fund.

Figures 19 and 20 show the number of times departing aircraft exceeded our departure noise limits. Although it is too early to observe any trends against the lower limits we introduced in May 2022, the changes have already encouraged our airline partners to switch some flights using noisier aircraft from night-time to daytime operations.



Figure 19. Number of daytime departure noise limit infringements, 2016 to 2022

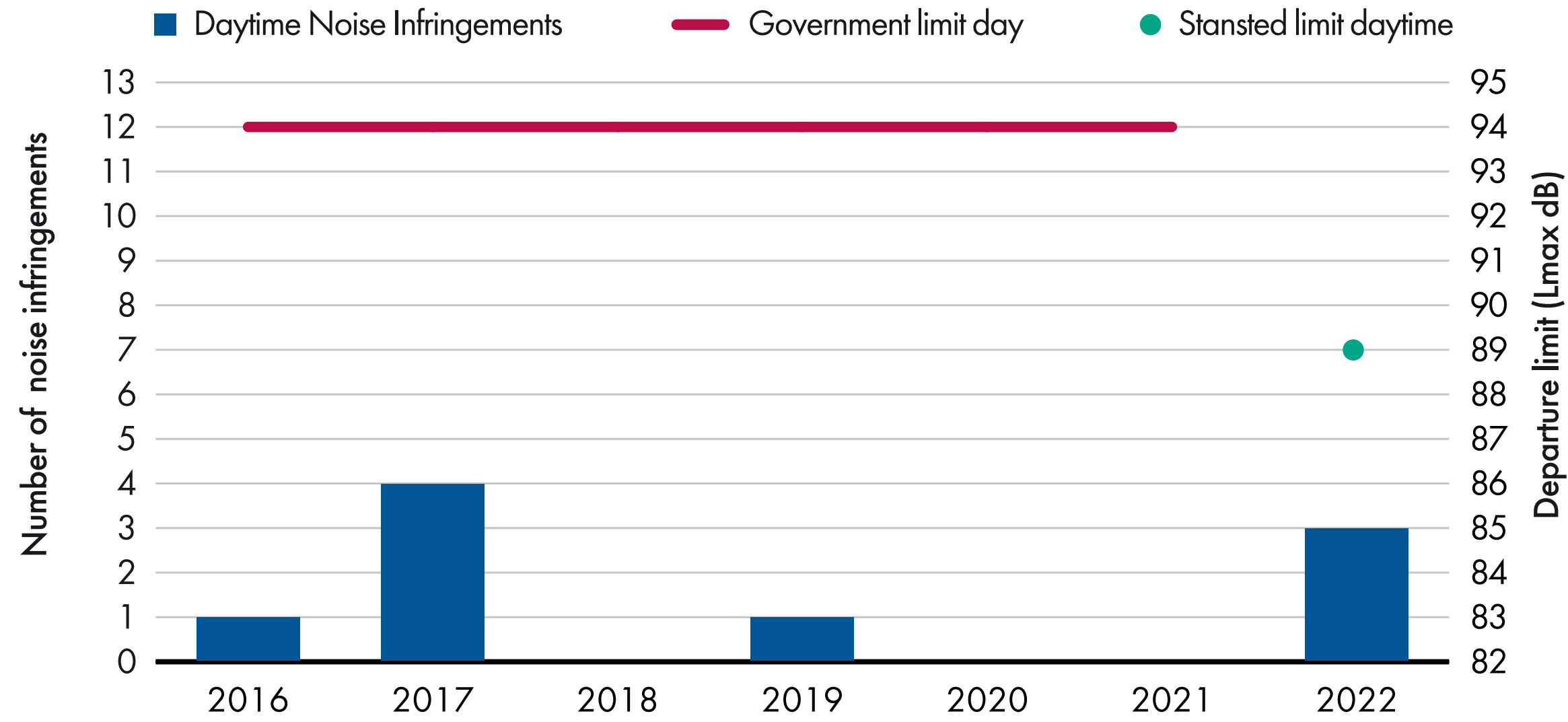
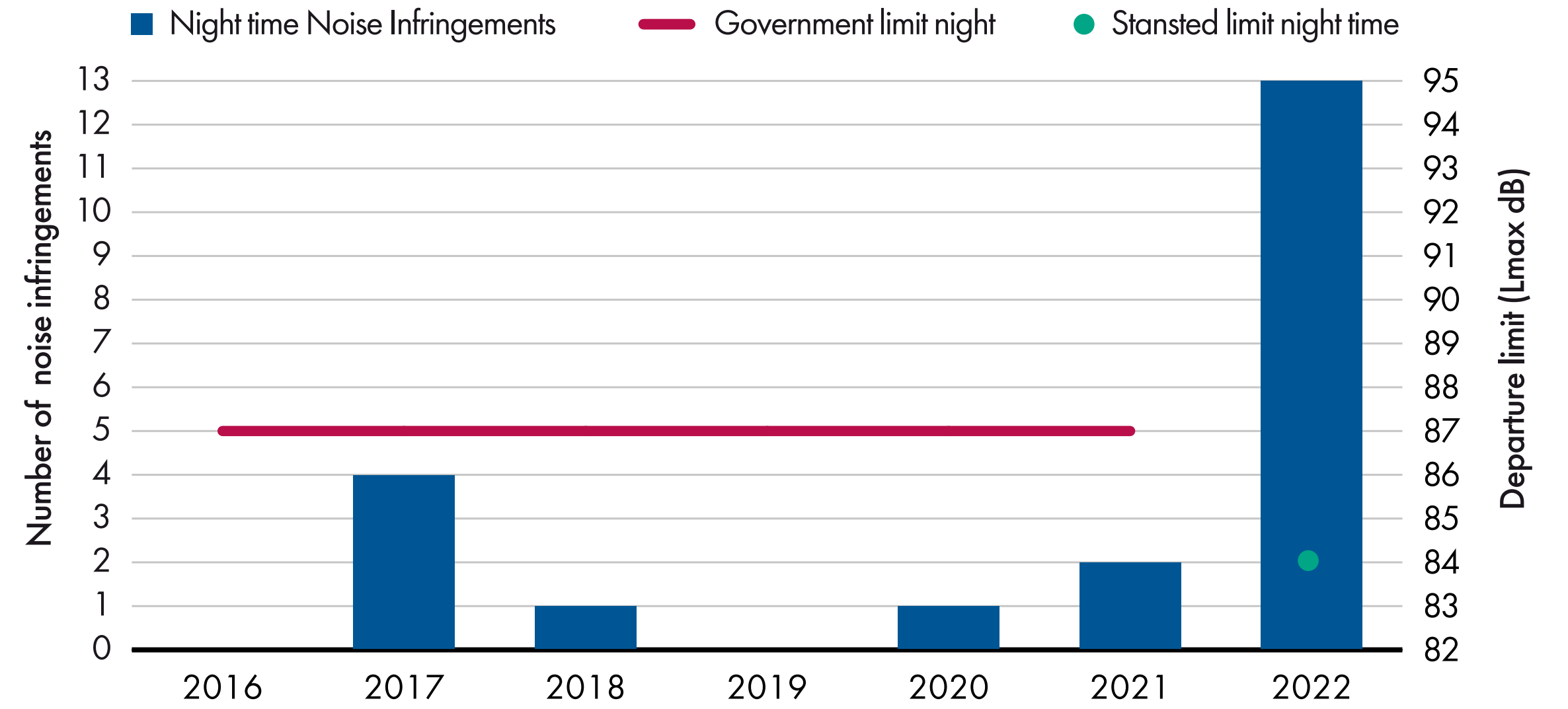


Figure 20. Number of night-time departure noise limit infringements, 2016 to 2022



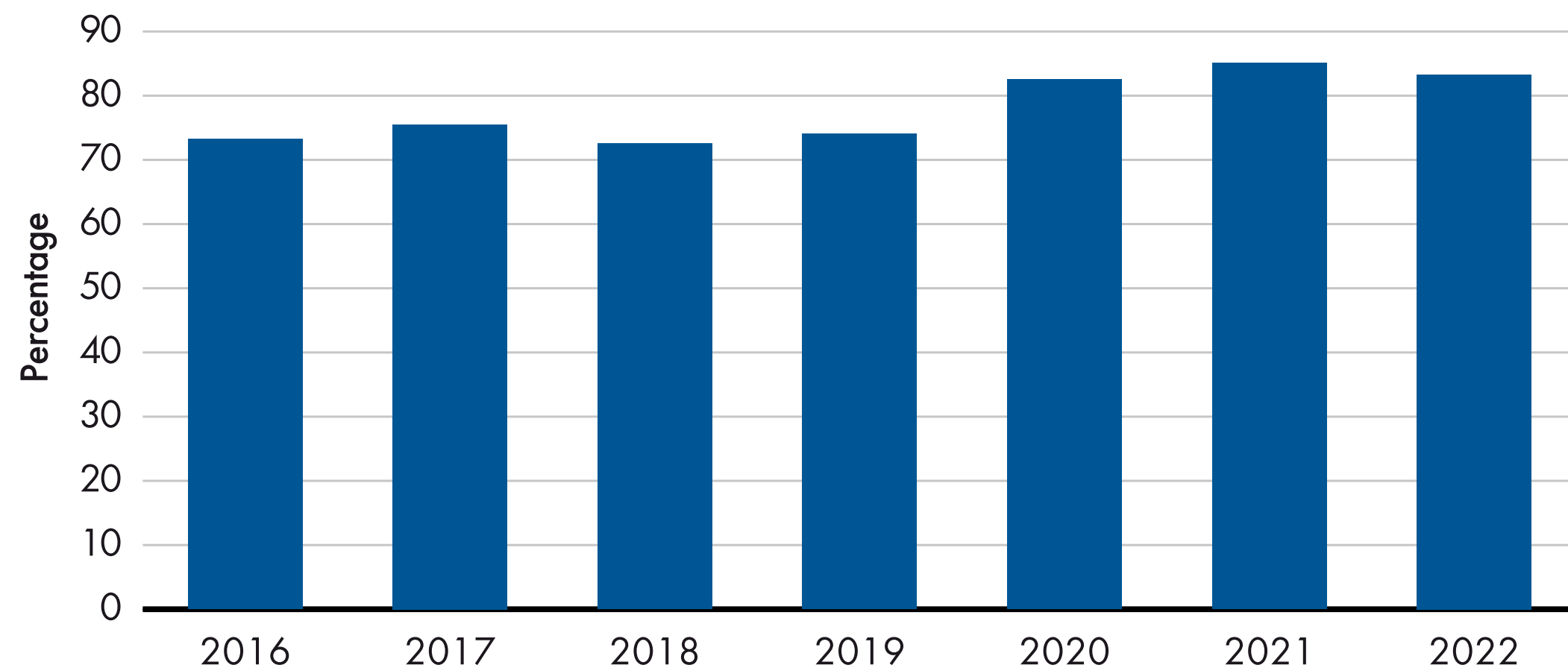


### Continuous climb operations (CCO)

Continuous climb operations (CCO) enable aircraft to keep climbing after take-off until they reach their cruise altitude. By eliminating periods of level flight (a similar principle to continuous descent approaches), a CCO reduces the tonal changes in the aircraft engine noise and enables the aircraft to make a smoother climb. Continuous climbs can increase the height of the aircraft closer to the airport and make noise levels less audible.

At Stansted Airport we are committed to playing our part in enabling airlines to perform CCOs. However, the extent to which CCOs can be achieved is affected by the design of regional airspace and by the number and types of other aircraft operating in the area at the same time. Figure 21 shows the proportion of aircraft departing Stansted Airport which achieved a CCO, including an improvement during the COVID-19 pandemic when airspace was less congested. The performance of aircraft departing Stansted Airport is consistent with those departing other airports within the complex and congested airspace of the London Terminal Manoeuvring Area (LTMA). We have been working with our air traffic control and airline partners to improve the proportion of departing aircraft which achieve a CCO, and expect to see increased performance when airspace within the London Terminal Manoeuvring Area is modernised.

Figure 21. Continuous climb operations compliance, 2016 to 2022



Action table 5. Noise Action Plan 2024-2028: Departing aircraft

| ACTION NUMBER | CONTROL  | ACTION   |
|---------------|--|--|
| <b>NAP 13</b> | Off-track departures                                       | We have a target that 99% of departing aircraft will remain within our noise preferential routes, and that compliance will meet or exceed 95% for each individual route. We will report performance to our Noise and Track Keeping Working Group, including the number of off-track departures and overall track-keeping performance.                      |
| <b>NAP 14</b> | Off-track departure fines                                  | We will monitor off-track departures, working with operators to improve performance and, where applicable, raise off-track departure fines to penalise airlines which are not working to improve their track-keeping and meet our published target.  |
| <b>NAP 15</b> | Monitoring performance-based navigation (PBN) departures   | We will monitor track compliance on performance-based navigation (PBN) routes against swathes which extend 500m either side of the centre of the published departure route. We report performance quarterly to our Noise and Track Keeping Working Group, and will apply the same reporting metric to any PBN departure routes we introduce in the future. |
| <b>NAP 16</b> | Implementing performance-based navigation departure routes | We will ensure that stakeholders are kept informed of our Future Airspace Programme as it progresses through the process defined by the Civil Aviation Authority in its document CAP1616.  |
| <b>NAP 17</b> | No-fly zones   | We will report the overflight of the stated no-fly zones as detailed in the Aeronautical Information Publication (AIP), including Sawbridgeworth, Stansted Mountfitchet, St Elizabeth’s Centre and Bishops Stortford, and report quarterly to our Noise and Track Keeping Working Group.   |
| <b>NAP 18</b> | ‘1,000 feet rule’  | We will report compliance against the 1,000 feet rule monitoring criteria in our quarterly Noise and Track Keeping Working Group reports.  |
| <b>NAP 19</b> | Departure noise limit (daytime)                            | We will maintain the daytime departure noise limit of 89dB, and will apply a surcharge to flights that exceed this limit. During this Noise Action Plan, we will review the effectiveness of this limit and any surcharges associated with it.   |
| <b>NAP 20</b> | Continuous climb operations                                | We will monitor and report continuous climb operations to the Noise and Track Keeping Working Group and Environmental Issues Group.  |



# 12. Night noise





As set out in Chapter 6, *Laws and policies*, London Stansted Airport is one of three airports which have been designated by the Government using powers contained in the Civil Aviation Act 1982. Therefore, most of the controls on night-time flying at Stansted Airport are directly imposed by the Government.

The night-time controls currently imposed by the Government were published in 2017 following public consultation. They had been intended to operate for the period 2017 to 2022, after which they would be reviewed. However, given the profound effects of the COVID-19 pandemic and the uncertainty it created, the Government took the decision in 2021 to extend the controls for three years, so they will now operate to 2025.

Stansted attaches a high priority to managing the noise impacts associated with night operations. So we have chosen to voluntarily enhance the Government’s controls by implementing more stringent measures, including restricting the operation of noisier aircraft types and imposing lower noise penalty limits.

The full suite of noise controls we currently employ are set out in this chapter. The night noise controls currently in place are set out under the headings below.

### Prohibition of the noisiest aircraft types

Aircraft noise is classified using the Government’s quota count (QC) scale. The noisiest aircraft operations are rated as QC16. For every reduction in noise of three decibels, the QC classification is halved. The very quietest aircraft are rated as QC0.125, a classification which was created when the current noise controls were introduced in 2017. The lowest classifications recognise the new generation of quieter aircraft types that were beginning to enter service at that time.

Aircraft are rated separately on departure and arrival. Departures often attract a higher rating due to the greater engine noise involved in take-off when aircraft use higher levels of thrust to climb.

The QC classifications, and typical aircraft types rated within them, are set out in Table 6.

Table 6. Quota count noise categories

| CERTIFIED NOISE LEVEL (EPNDB) | QUOTA COUNT (QC) | TYPICAL AIRCRAFT (DEPARTURE)                       | TYPICAL AIRCRAFT (ARRIVAL)            |
|-------------------------------|------------------|--|---------------------------------------|
| <b>More than 101.9</b>        | QC16             | Concorde   |                                       |
| <b>99 to 101.9</b>            | QC8              | Boeing 747-200                                     |                                       |
| <b>96 to 98.9</b>             | QC4              | Airbus A340<br>Boeing 747-400<br>DC10              |                                       |
| <b>93 to 95.9</b>             | QC2              | Airbus A380<br>Boeing 777<br>MD11                  | Boeing 747-400<br>MD11                |
| <b>90 to 92.9</b>             | QC1              | Airbus A321ceo<br>Boeing 767-200                   | Airbus A300<br>Boeing 747-800         |
| <b>87 to 89.9</b>             | QC0.5            | Airbus A320ceo<br>Airbus A321neo<br>Boeing 737-800 | Airbus A380<br>Boeing 737-800         |
| <b>84 to 86.9</b>             | QC0.25           | Airbus A319<br>Boeing 737-8200 MAX                 | Airbus A320ceo<br>Boeing 737-8200 MAX |
| <b>81 to 83.9</b>             | QC0.125          | Airbus A320neo                                     | Airbus A320neo                        |
| <b>Below 81</b>               | QC0              | Gulfstream G500                                    | Gulfstream G650                       |



Over time, as new technologies have reduced both engine and airframe noise, the quota count classification of new aircraft has fallen. For example, our largest operator, Ryanair, is upgrading its fleet of aircraft from the Boeing 737-800 series to the new Boeing 737 'Max' (B737-8200). The older version of the Boeing 737 was rated as QC0.5 on departure; the new version is more than three decibels quieter and is rated QC0.25.

To secure the benefits of this progressive fall in QC, and recognising that noise at night is particularly sensitive, the Government has for many years banned operations by QC16 and QC8 rated aircraft at night. For these purposes, night is defined as the period from 23:00 to 07:00. In 2021, when the Government extended the current night-time controls for a further three years, the ban was extended to operations by QC4 rated aircraft. The ban applies to the shorter night period of 23:30 to 06:00.

In 2018, when we consulted on our Noise Action Plan 2019-2023, we proposed and subsequently introduced, a further control to prohibit any additional scheduling of QC2 rated aircraft at night beyond those already scheduled. We did not propose a complete ban because we recognised that some airlines operated QC2 rated aircraft and would find it difficult to find quieter alternatives.

Recognising that for some airlines it remains very difficult to secure quieter aircraft, we intend to continue to impose the same freeze on QC2 rated aircraft in our Noise Action Plan 2024-2028, extending the control to cover the full 8-hour night period from 23:00 to 07:00. We will review this position in 2028 in readiness for our next Noise Action Plan.

### Limits on aircraft movements and noise quota

In addition to using the QC classification system to prohibit operations by the noisiest aircraft types, the Government imposes limits on the total number of QC points that night-time operations at Stansted Airport can accrue. By limiting total QC points, the Government gives Stansted Airport a budget to run a smaller number of operations of relatively noisier aircraft or a greater number of operations of relatively quieter aircraft. In this way the QC limits are intended to provide an incentive to transition to quieter aircraft types. In all circumstances, however, the total number of aircraft movements permitted is also subject to an absolute cap.

The current QC and movement limits imposed at Stansted Airport are set out in Table 7. These limits apply to a night-time period between 23:30 and 06:00.

The Government imposes separate limits for summer and winter seasons. For the purposes of these limits, summer is the period of British Summer Time (BST) and winter is the period between the end of BST in one year and the start of BST in the next. Since these BST-defined seasons vary in duration from year to year, the Government's rules allow a degree of flexibility: if unused, we can carry up to 10% of the seasonal limit (QC and/or movement) over to the following season. If a seasonal limit is exceeded, any overrun can be addressed by a corresponding reduction to the limit in the following season (up to a maximum of 10% of the seasonal limit).

Table 7. Movement and quota limit for the night-time period 23:30 to 06:00 in the summer and winter seasons

| SEASON | MOVEMENT LIMIT | QUOTA COUNT LIMIT |
|--------|----------------|-------------------|
| Summer | 8,100          | 4,650             |
| Winter | 5,600          | 3,310             |

There are occasions when aircraft that are not part of the planned schedule operate at night. The Secretary of State (SofS) publishes rules that allow Stansted Airport to dispense certain flights so that they are not counted for the purpose of aircraft movement and quota limits. Typical examples, which would be operational issues beyond an airline's control, include flights impacted by thunderstorms or other instances of poor weather, the failure of air traffic equipment, and air traffic controller strikes. These dispensations are principally intended to avoid congestion and prevent serious hardship to passengers. In some circumstances the SofS, acting on behalf of the Government, can also provide Stansted Airport with one-off dispensations to exempt certain flights from inclusion in aircraft movement and quota limits. Typical examples would include flights providing humanitarian relief, flights enabling the visits of foreign heads of state, and flights in support of international sporting events. Stansted Airport also supports emergency medical flights, which are usually also subject to dispensation. To ensure that there is transparency, we have in recent years published all instances of dispensation, and we propose to formalise this approach by adopting a new action in our Noise Action Plan.

The number of flights at Stansted Airport during the night-time period subject to the Government's limits (23:30 to 06:00) is shown in Figures 22 and 23. The number of flights within each QC classification is also shown. Figures 24 and 25 show the combined QC of these flights. Reported figures are net of dispensations.



Figure 22. Flights during the night-time period 23:30 to 06:00 during the summer season, reported by quota count (QC) classification

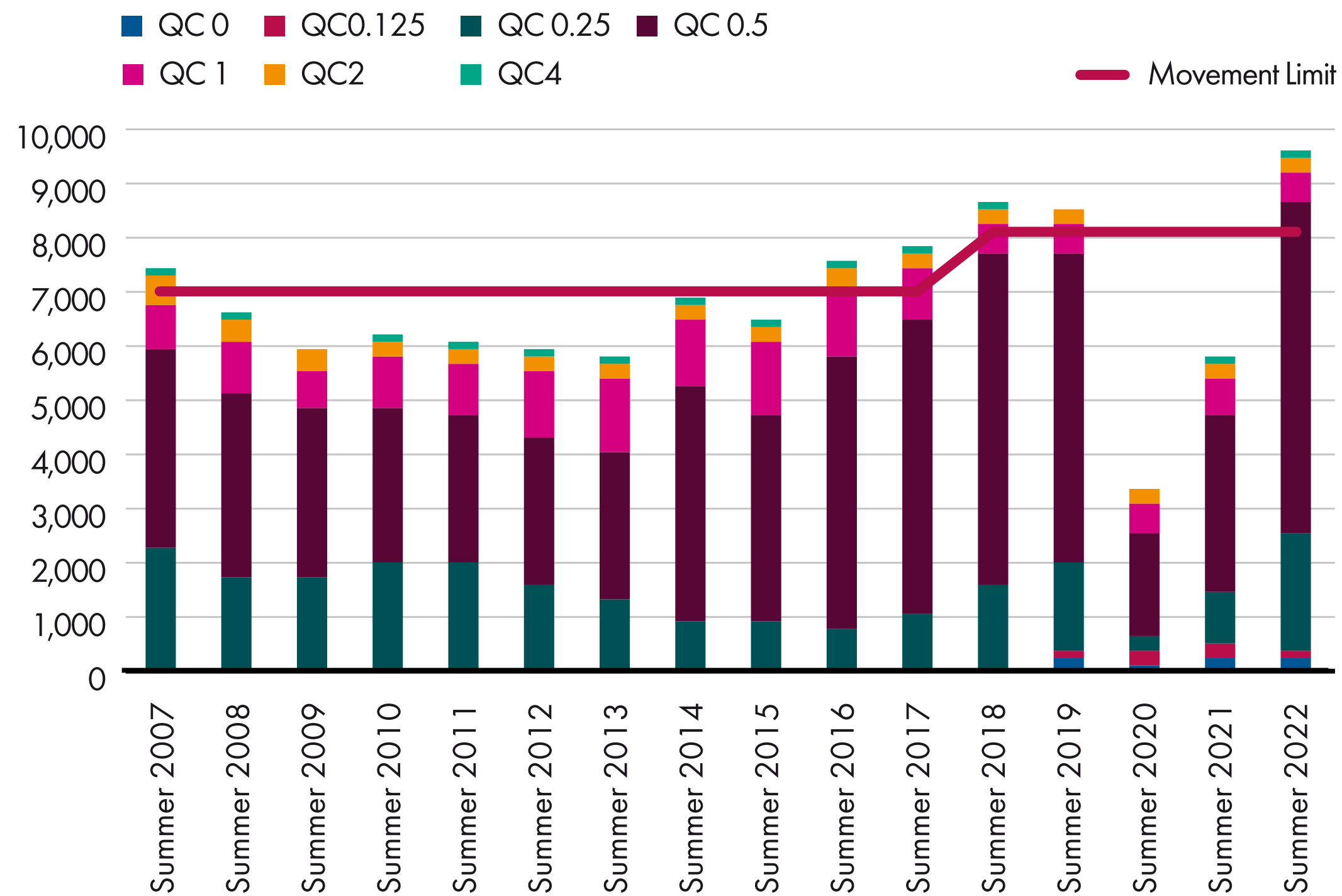


Figure 23. Flights during the night-time period 23:30 to 06:00 during the winter season, reported by quota count (QC) classification

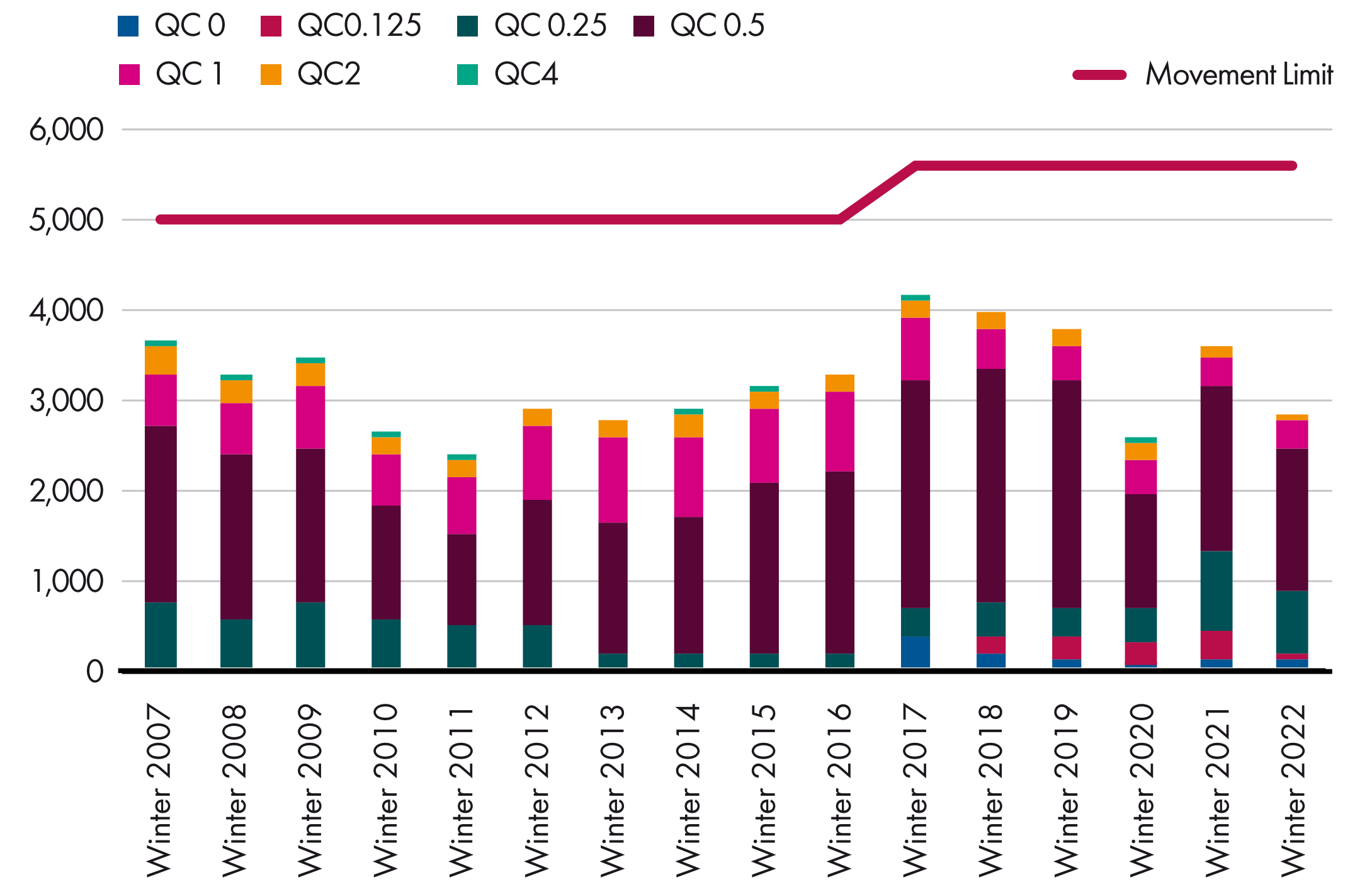




Figure 24. Total quota count of flights during the night-time period 23:30 to 06:00 during the summer season

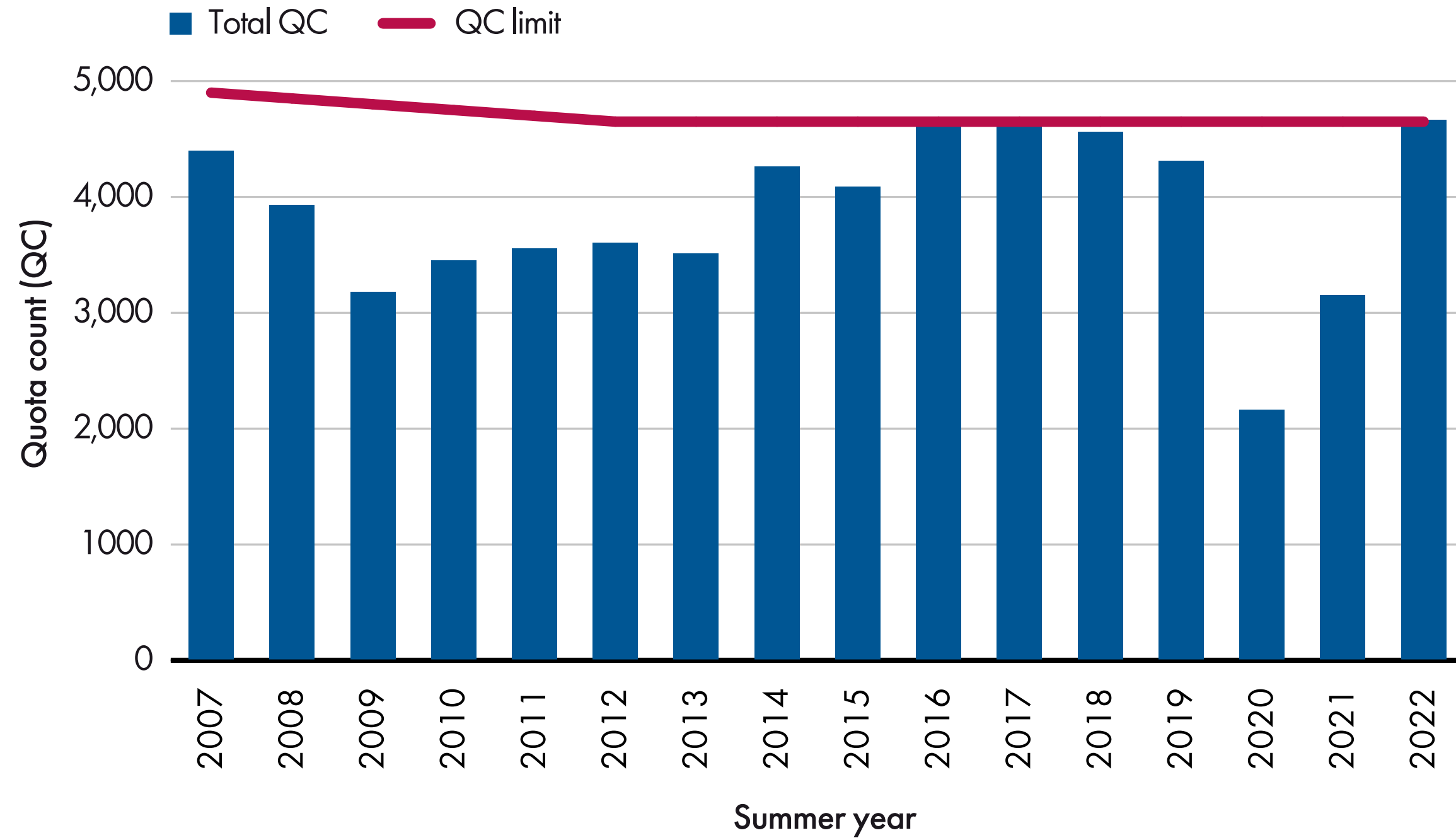
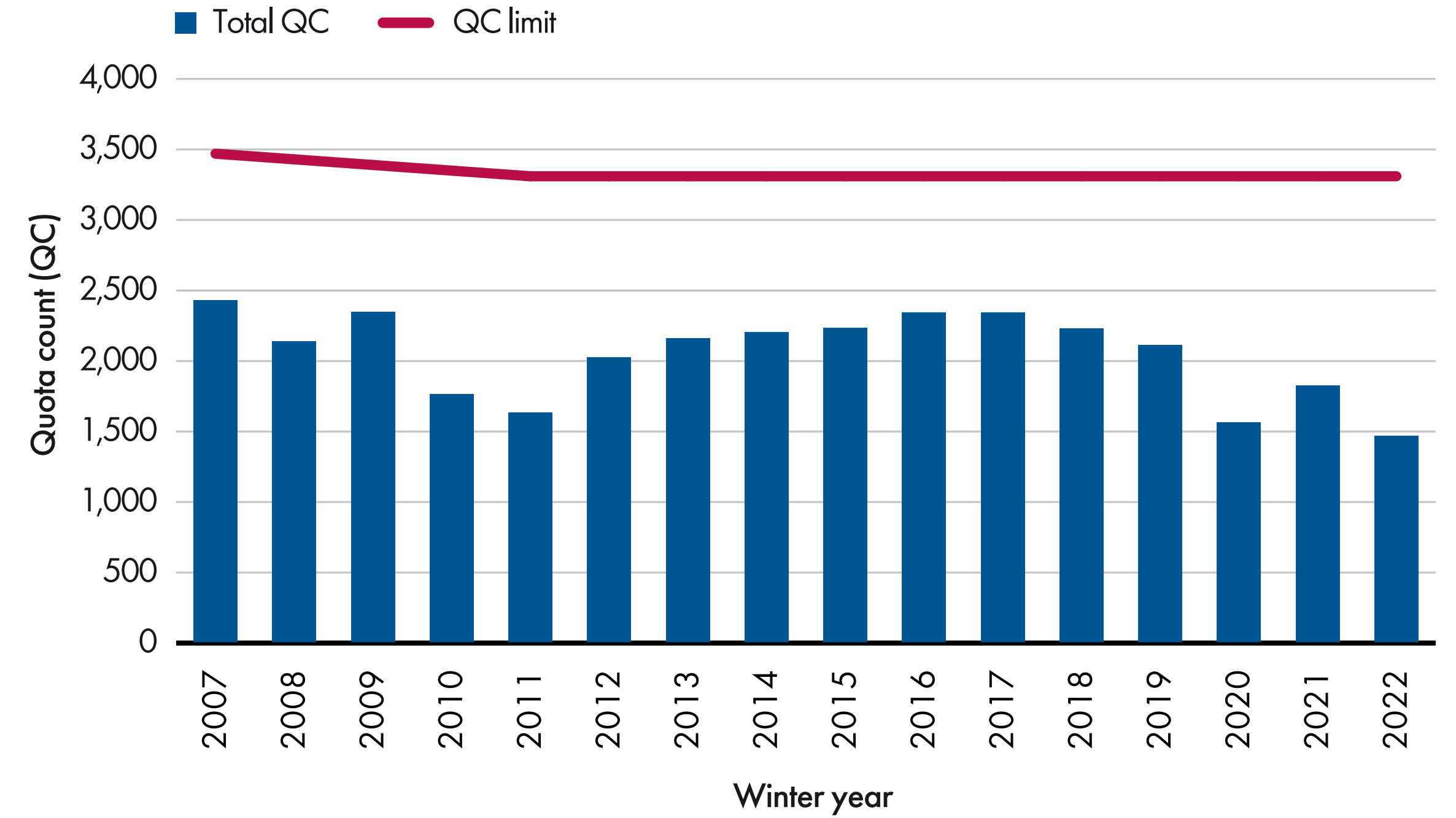


Figure 25. Total quota count of flights during the night-time period 23:30 to 06:00 during the winter season





Figures 22 and 23 show that most of the night flights at Stansted Airport are undertaken by relatively quiet aircraft types with a QC rating of 0.5 or less. As explained above, we have introduced measures to limit the number of flights by noisier (QC2 rated) aircraft, however a small number of flights by QC2 rated aircraft remain. The seasonal nature of flights at Stansted Airport means that the headline movement limit imposed by the Government is overrun in the summer season, but significant headroom remains in the winter season. As a result, we make use of the seasonal flexibility provided within the Government controls. This allows us to exceed the summer season limit, provided we reduce the winter season limit by a corresponding number.

The transition to quieter aircraft types means that, over a yearly cycle, Stansted Airport operates comfortably within the QC limits that are imposed by the Government. However, we have reached a point where the aircraft movement limit constrains any significant further increase in activity at night. As a result, the QC limit no longer provides the intended incentive to airlines to operate quieter aircraft at night because the absolute limit on movements is met before the QC limits are reached.

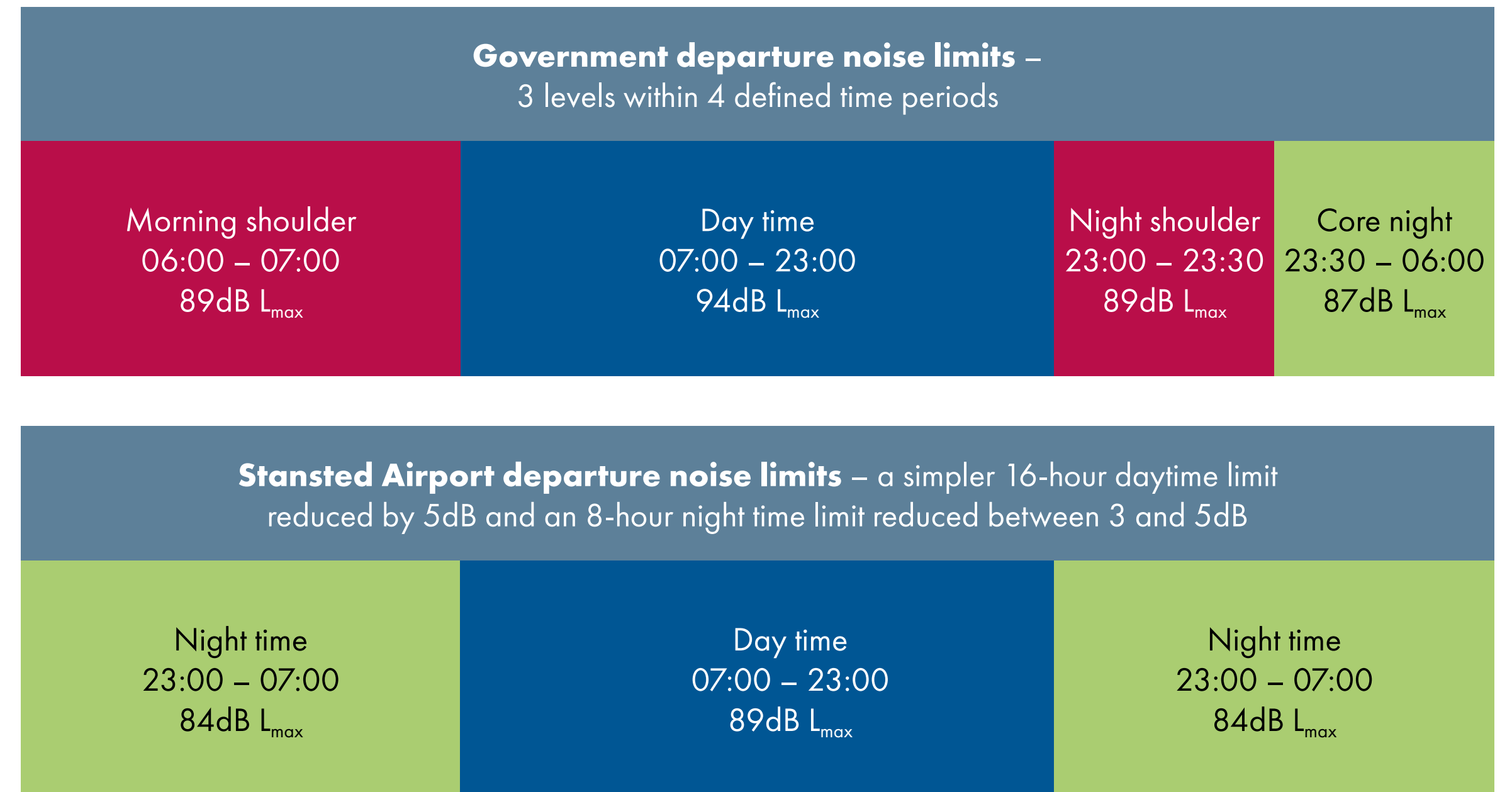
### Departure noise limit

The Government sets departure noise limits at the three designated airports. Since Stansted Airport is one of those three airports, the limits apply to our departing aircraft. The Government sets three limits: for daytime (07:00 to 23:00), for the shoulder periods at the start and end of the night (23:00 to 23:30 and 06:00 to 07:00) and for night-time (23:30 to 06:00).

The noise from all departing aircraft is measured using our network of noise monitors located beneath departure flight paths. As explained more fully in Chapter 11, *Departing aircraft*, aircraft that exceed published noise limits are penalised, with the proceeds of the penalty donated to the London Stansted Airport Community Fund which supports local good causes.

The transition to quieter aircraft that we have achieved at Stansted Airport meant that the departure noise limits set by the Government were no longer providing a challenging limit for our airlines. As a result, within our Noise Action Plan for 2019-23 we detailed actions for us to work with the Government to implement a simpler and more stretching set of departure noise limits. These actions have been completed and, following approval from the Government, since May 2022 we now operate two different departure noise limits: one during the daytime (07:00 to 23:00) and another during the night-time (23:00 to 07:00). Figure 26 shows the new limits, which are up to five decibels lower than those imposed by the Government. More information about our departure noise limits is provided in Chapter 11, *Departing aircraft*.

Figure 26. Improvements to departure noise limits implemented in May 2022





## Additional noise controls at night

During the night-time we strengthen and supplement some of the controls explained in other sections of this Noise Action Plan.

In Chapter 9, *Arriving aircraft*, we explain the benefits of continuous descent approaches (CDAs) and present our target that 94% of aircraft arriving on Runway 22 will achieve a CDA. The complexity of London airspace means that it is often not possible for aircraft arriving on Runway 04 to perform a CDA. This is because airspace constraints require air traffic controllers to lower aircraft approaching Stansted Airport earlier than necessary to separate them from aircraft arriving at, and departing from, other London airports. However, we work with air traffic control on an informal target that, during the night-time period between 23:30 and 06:00 when London airspace is less congested, 65% of aircraft arriving on Runway 04 will perform a CDA. In this Noise Action Plan, we propose formalising this target.

Aircraft arriving at the airport between 23:30 and 06:00 are required to join the instrument landing system (ILS) at a minimum altitude of 3,000ft and at a distance of at least 10 nautical miles. This is higher than the minimum daytime ILS joining point of 2,000ft, which helps to minimise the number of communities overflowed by arriving aircraft during the night. More information about our controls on ILS joining points is provided in Chapter 9, *Arriving aircraft*.

Additionally, we prohibit engine testing above idle power between the hours of 23:00 and 07:00 (including for helicopters). More information about our controls on engine testing is provided in Chapter 10, *On the ground*.

## Future noise controls at night

### A new night-noise framework for Stansted Airport

Since the publication of our Noise Action Plan 2019-2023, Stansted Airport has received planning permission to increase the annual cap on passenger numbers from 35 million to 43 million passengers per annum (mppa). The noise impacts associated with this growth were considered in detail at a public inquiry, and the resulting planning permission imposes several conditions to minimise noise.

With respect to operations at night, the Planning Inspector noted that the aircraft movement and QC limits imposed by the Government are restricted to the 6.5-hour period between 23:30 and 06:00. To provide local communities with greater protection from noise, the Inspector imposed a night noise limit on operations at Stansted for the 8-hour night period between 23:00 and 07:00. The additional night noise limit is expressed as a night noise contour. It requires that the area enclosed by the night noise contour (48 dBL<sub>Aeq</sub> 8-hour) be no more than 74km<sup>2</sup>. The new limit will be legally binding once the airport reaches a passenger throughput of 35 mppa. Thereafter the limit will reduce marginally to 73.6km<sup>2</sup> once the airport reaches a throughput of 43 mppa. To ensure that the contour takes account of the seasonal nature of flying at Stansted Airport, we are required to calculate the contour for the peak summer period (16 June to 15 September).

To comply with this new night noise control, it will be necessary to impose limits on aircraft operations for the 8-hour period between 23:00 and 07:00. Therefore we propose the introduction of additional controls, specifically a new QC limit. The framework we propose is:

- The introduction of a new QC limit covering the period between 23:00 and 07:00.
- The QC limit will apply to the summer season and will begin for the summer 2026 season after the Government's current regulatory regime ends.
- The QC limit will be set initially at 10,100 points until the end of our Noise Action Plan 2024-2028, when we review and update the Plan.

The new QC limit corresponds to operations in summer 2022. In summer 2022 the combined QC of flights during the 8-hour night period between 23:00 and 07:00 was 10,100 points. We are confident that this approach will put Stansted Airport on a trajectory that ensures we comply with the planning condition, and that we incentivise the progressive introduction of quieter aircraft types at night, including extending where necessary the prohibition of the noisiest rated aircraft to the 8-hour night period between 23:00 to 07:00.



The introduction of the new framework is a demonstration of our commitment to bear down on noise. It will ensure that night noise is capped as we continue to grow in the future and will provide reassurance to local communities that future growth will not increase night noise.

### **The relationship between the new framework and the Government's controls**

The new framework we propose is necessary to meet the requirements of our new planning condition. The introduction of the new framework, in addition to Government controls imposed by designation, would result in Stansted Airport having to operate two separate QC limits: one for the 8-hour night period in response to the new planning condition; the other imposed by the Government for the 6.5-hour period.

By setting the new QC limit at a level that reflects actual operations in summer 2022, the new limit will ensure that noise from aircraft operations during the 8-hour night period does not increase beyond the level currently permitted by the Government. The limit also ensures that the airport's future growth delivers employment and economic benefits without increasing noise.

By extending controls to the 8-hour period, the new framework responds to the concerns of the Planning Inspector. The framework will also be more stringent than the regime currently imposed by the Government and would become the primary constraint on night noise.

Several UK airports rely on a night noise contour limit, delivered through the imposition of a QC limit to manage night noise. Since the new framework proposed by Stansted Airport would closely resemble the regime at these airports, we are confident that of itself it would provide an effective control regime.

Having both local and national controls to regulate the same issue would lack clarity for local communities. It would make it harder for them to understand which was the primary regime for regulating night noise. Operating two parallel control regimes would also be administratively complex and costly for the airport and airlines to operate and report on.

### **Implications for the Government's review of night noise policy**

In 2021, the Government published a call for evidence that asked wide-ranging questions to inform future night noise policy. The questions sought evidence on various topics, including: the length of any future regime, the circumstances that would lead to designation, the circumstances that might qualify aircraft operations for a dispensation from inclusion within any imposed limits, the metrics that best manage night noise, and broadly the way that night noise might be regulated in the future.

In 2017, when the Government last consulted on the night-time controls to be imposed at Stansted Airport, it recognised that "Stansted's intention to seek planning permission in the coming months will give them the opportunity to seek to reach a local agreement on night flight restrictions that is acceptable to both the airport and local communities"<sup>5</sup>. While we await the Government's substantive response to its 2021 review of night noise policy, it is clear from their previous statements that they will take account of the results of the planning process at Stansted Airport, the new planning controls that now apply, and the new night noise framework that we propose.

The Government has a long-standing preference that aircraft noise should be managed locally. Indeed, in the same 2017 consultation, the Government responded to requests that it should designate more airports – and Luton specifically – by saying that designating Luton would "...go against the government's policy that noise is usually best managed locally..."<sup>6</sup> and "...that night flight restrictions are also in place at Luton Airport as a condition of planning permission approved by Luton Borough Council"<sup>7</sup>.

We will finalise our Noise Action Plan in September 2023, taking account of the feedback and views we receive in response to this consultation. The final version of the plan will then provide a clear statement about how noise will be managed through local controls at Stansted.

The Government will then be able to take the controls imposed under the planning regime and the changes to the local regulation of night noise set out in the Noise Action Plan into account in its review of future night noise regulation. The review would also include consideration of whether there continues to be a noise problem at Stansted Airport that merits national regulation through designation and in the design of any national regulation required to supplement the local regime established by the NAP.

<sup>5</sup> [Night Flight Restrictions at Heathrow, Gatwick and Stansted \(publishing.service.gov.uk\)](#) para 2.20

<sup>6</sup> [Night flight restrictions at Heathrow, Gatwick and Stansted: decision document \(publishing.service.gov.uk\)](#) para. 2.24

<sup>7</sup> [Night flight restrictions at Heathrow, Gatwick and Stansted: decision document \(publishing.service.gov.uk\)](#) para. 2.24



If the Government were to conclude that, in the future, night-time aircraft noise at Stansted Airport is best managed locally, given the changes in circumstances, then this Noise Action Plan would become the principal management document. The measures it contains, which incorporate most of the Government’s controls and in some instances already go further than those controls, would continue to be implemented, with progress and performance regularly reported. Currently, the new QC limit that we propose would apply to the summer season only. This is consistent with the night noise contour target set by, and enforceable under, the planning condition. However, if it were helpful to deliver a streamlined but comprehensive system of controls, Stansted Airport would be content to extend the 8-hour QC limit to the winter season too. In these circumstances, we would adopt a limit based on 2022, to be implemented from 2026 and reviewed in 2028 at the conclusion of this Noise Action Plan.

Action table 8: Noise Action Plan 2024-2028: Night noise

| ACTION NUMBER | CONTROL  | ACTION  |
|---------------|--|---|
| <b>NAP 21</b> | Night noise movements and quota                  | As a designated airport, we will administer the night noise restrictions imposed by the Department for Transport and ensure that the number of operations and noise quota remain within prescribed limits. We will report data quarterly to our Noise and Track Keeping Working Group.            |
| <b>NAP 22</b> | QC2 operations                                   | We will not permit any scheduled operations during the night period 23:00 to 07:00 using QC2-rated aircraft that do not hold historic rights to the slot.   |
| <b>NAP 23</b> | Night-flight dispensations                       | We will publish information about flights that have dispensations from night-flight restrictions. This information will be incorporated in our Quarterly Flight Evaluation Unit Report. Modifications to this report will be developed and agreed with the Noise and Track Keeping Working Group. |
| <b>NAP 24</b> | Departure noise limit (night-time)               | We will maintain the night-time departure noise limit of 84dB and will apply a surcharge to flights that exceed this limit. During this Noise Action Plan, we will review the effectiveness of this limit and any surcharges associated with it.  |
| <b>NAP 25</b> | Continuous descent approach (Runway 04 at night) | We have set a target that 65% of arrivals on Runway 04 during the core night period (23:30-06:00) will achieve a continuous descent approach. We will report performance against this target to NATS and our Noise and Track Keeping Working Group.   |
| <b>NAP 26</b> | Instrument landing system approach (night-time)  | Aircraft using the instrument landing system (ILS) must not descend below 3,000ft before joining the glidepath or join within 10 nautical miles of touchdown. We will continue to report compliance with our night-time ILS joining-point requirements to NATS on monthly basis.                  |
| <b>NAP 27</b> | QC limit for the 8-hour night period             | We will introduce a quota-count limit on noise generated by aircraft operating during the 8-hour night period (23:00 to 07:00) during the summer scheduling season. The limit will be introduced in Summer 2026 and set at 10,100 QC points during this Noise Action Plan.                        |



# 13. Mitigation schemes





At London Stansted Airport we are committed to minimising the impacts of airport activities on our local communities. Noise mitigation is provided through grants for installing noise insulation in the buildings most affected by aircraft noise. Additional support is provided through grant funding for local community projects. Further, we regularly engage with local planning authorities to provide information about airport operations which can help inform decisions about local development.

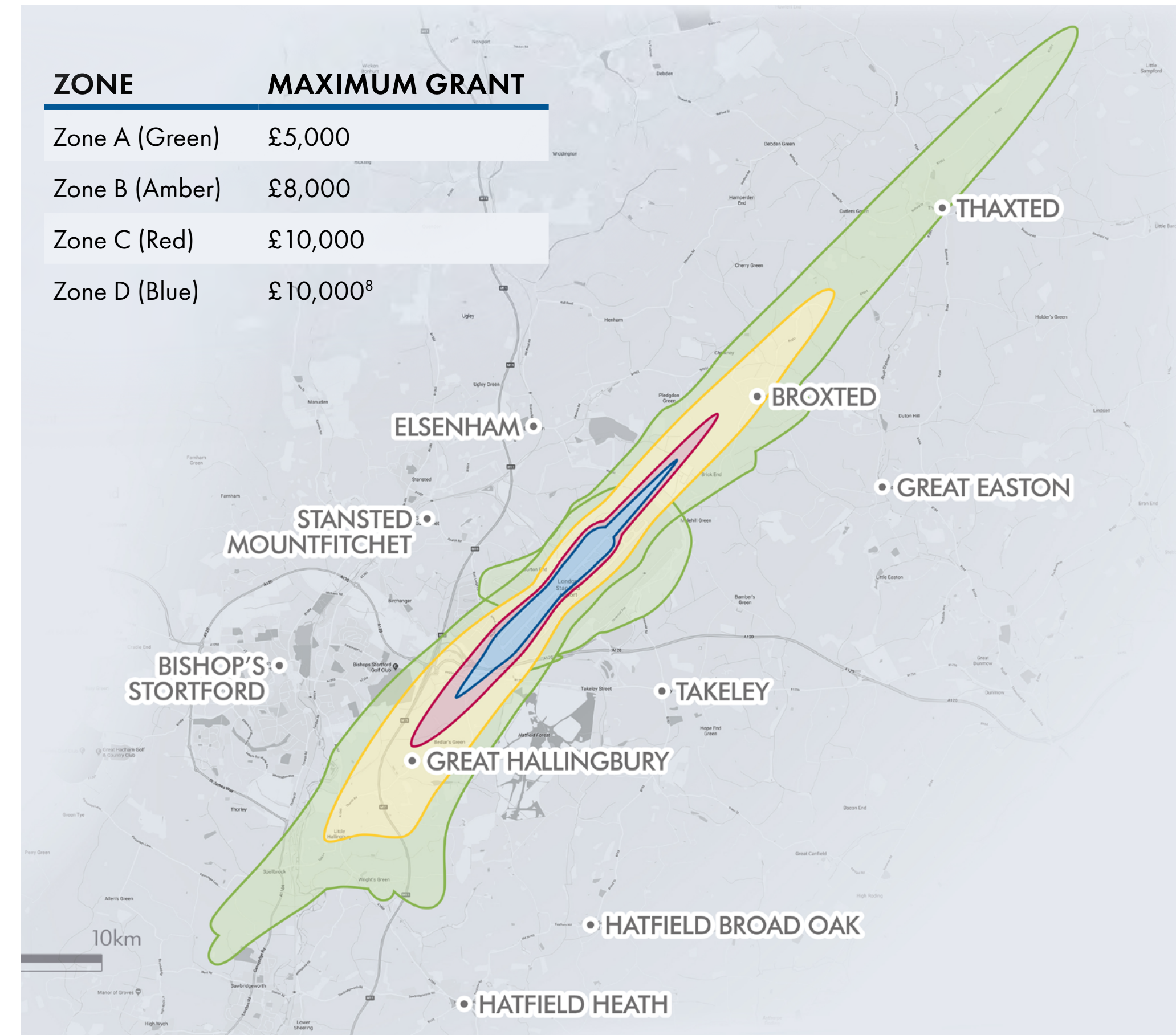
### Sound Insulation Grant Scheme

Stansted Airport has a long-standing commitment to provide a Sound Insulation Grant Scheme (SIGS) for those most impacted by aircraft noise.

In 2023 we launched a new enhanced SIGS which covers a larger geographic area. Enlargement made 800 more households eligible for support. Our new scheme also removes the need for the householder to contribute because the SIGS contribution now covers up to 100% of the cost of sound insulation.

The level of grant support available ranges from £5,000 to £10,000 depending upon the zone within which a property is located, with more funding offered to households in noisier areas. The level of funding available for each zone is shown in Figure 27.

Figure 27. Sound Insulation Grant Scheme (SIGS) boundaries and grant funding



<sup>8</sup> For households subject to the highest levels of noise (Zone D), we will also provide assistance with the costs of relocating



Our SIGS funding will pay for noise insulation measures such as double glazing, mechanical ventilation in habitable rooms, and loft insulation. Not all houses are suitable for the installation of acoustic insulation. Properties that may be unsuitable include houses which are not of standard brick construction, and individual rooms built into roof spaces which do not have standard brick walls. Residents can find more detailed information about our SIGS and how to apply via our [website](#).

While the scheme makes grants available only to dwellings within the eligible area, we accept that some noise sensitive buildings, such as local schools, may also benefit from noise insulation. The airport may make discretionary awards available, and cases will be considered individually.

### Vortex damage repair scheme

When an aircraft travels through the air it causes turbulence behind it. Air turbulence can lead to circulating currents of air known as vortices. Vortices can continue for some time and even reach the ground, especially if there is little wind to break them up. If a vortex reaches rooftop level, the force can sometimes cause damage to the roofs of houses beneath flightpaths close to the airport.

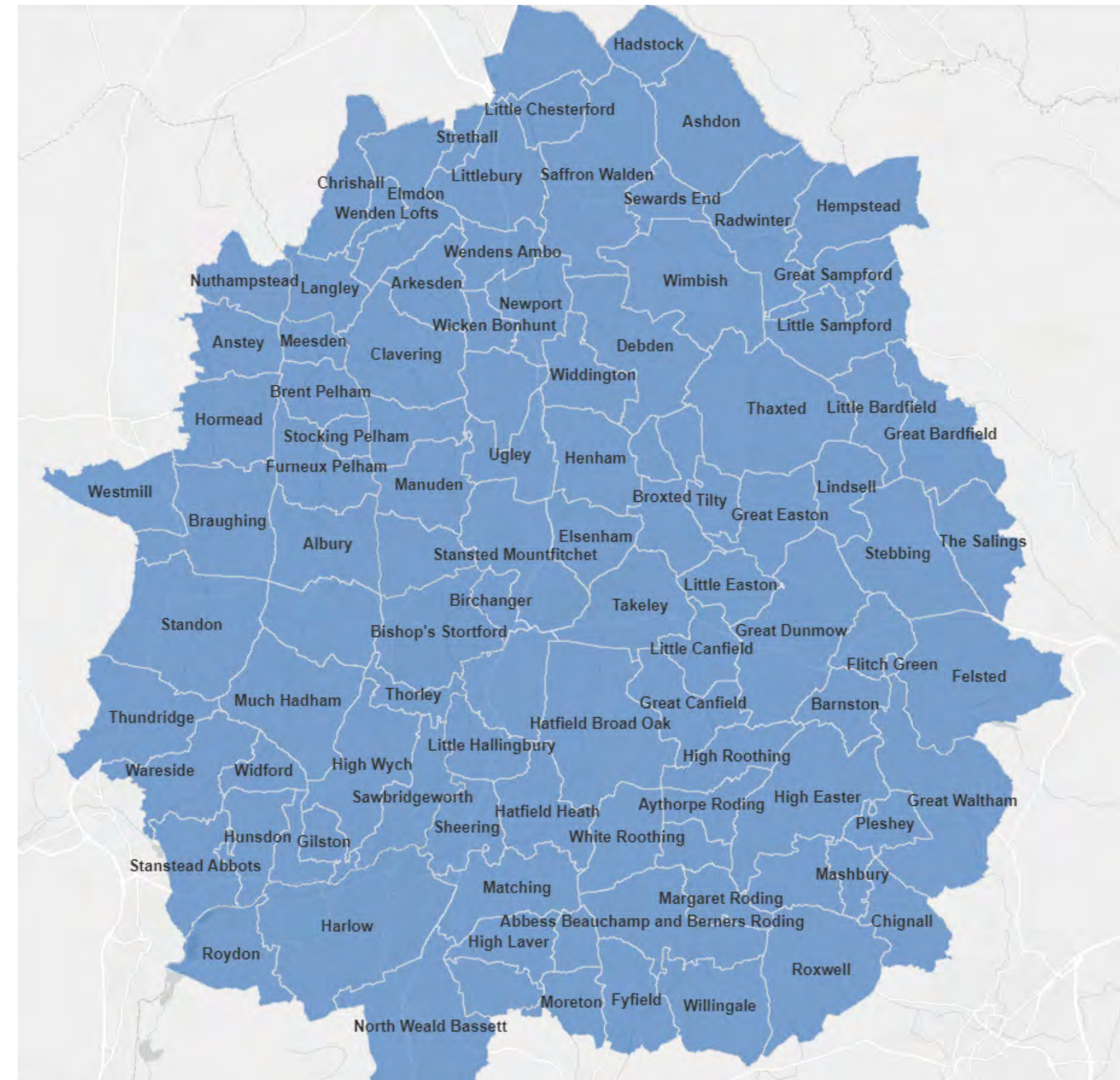
The airline whose aircraft caused the vortex would normally be liable for the damage. However, as it is not always possible to identify the aircraft responsible, we offer a goodwill policy of inspecting and repairing all vortex damage. When it is confirmed that a vortex has damaged a roof, we will arrange to repair the roof and give it a vortex-resistant roof covering.

### London Stansted Airport Community Fund

At Stansted Airport our Community Fund is designed to support projects across a wide 'area of benefit' around the airport. In 2022, we launched a refreshed Community Fund. It builds on the success of the previous fund which donated over £500,000 to local charities and community groups.

The new Community Fund is available to a range of not-for-profit organisations operating within a wide area around the airport, including most of the locations from which we currently receive noise complaints. The area of benefit is shown in Figure 28. We have guaranteed that Stansted Airport will provide £150,000 every year to the Community Fund for the next ten years. In addition, we donate the money we receive from airlines subject to departure noise or track compliance fines.

Figure 28. London Stansted Airport Community Fund area of benefit



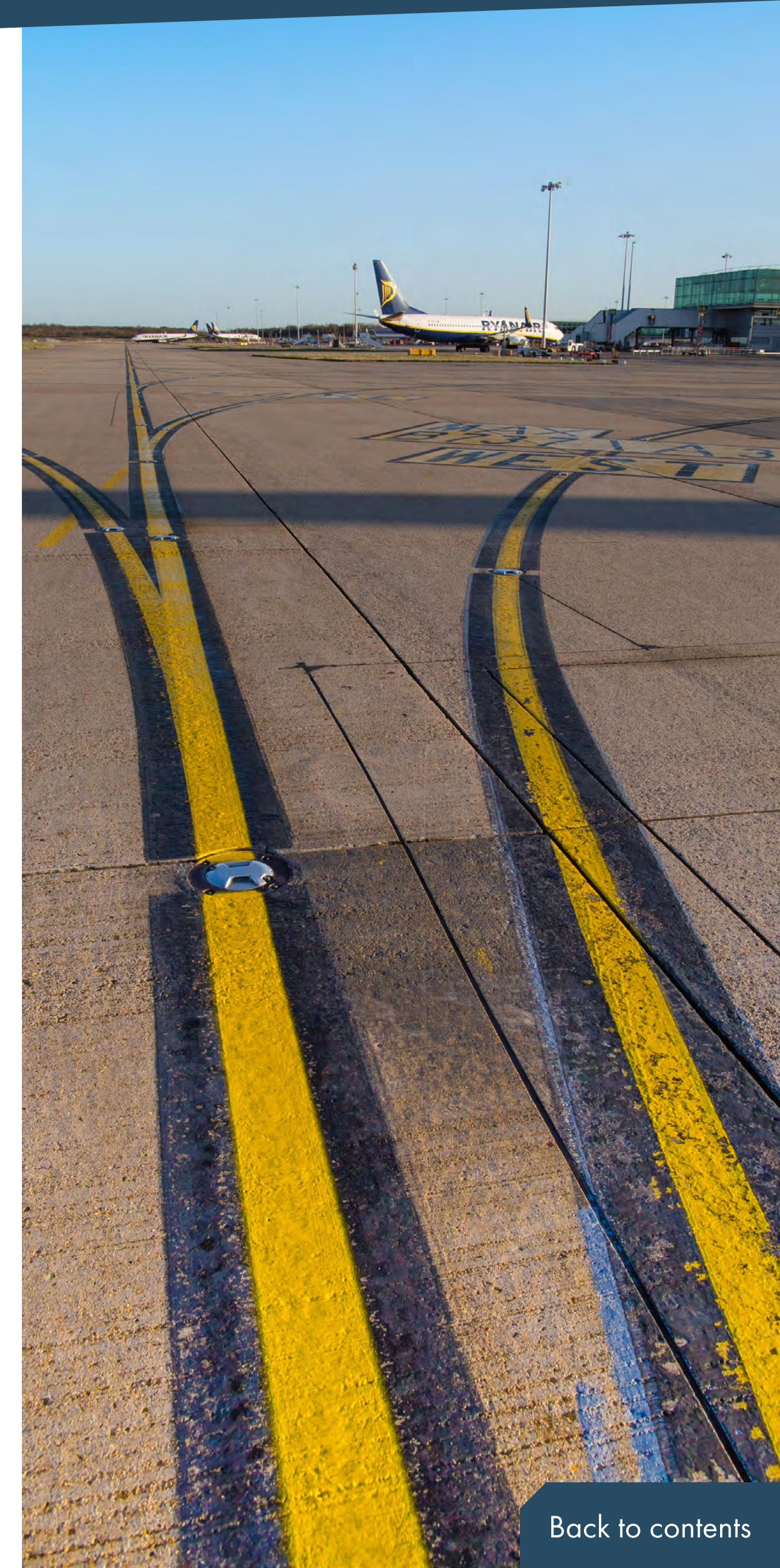


Organisations within the area of benefit can apply for a community award of up to £5,000 or for the annual flagship award of up to £50,000 for projects which have a lasting benefit for the local community. Since we relaunched the Community Fund in 2022, it has provided over £200,000 in grant funding to 33 community organisations, including £57,000 awarded to seven local schools through our School’s Eco-Garden Competition. We have also recently awarded our first Flagship Award to Grove Cottage in Bishop’s Stortford. The charity will use the £50,000 to purchase and install solar panels to generate electricity, and a heat pump to provide heating and hot water. The improvements will help to reduce the centre’s carbon footprint and energy costs.

Residents and local organisations can find more information about the London Stansted Airport Community Fund and how to apply [on our website](#).

Action table 9. Noise Action Plan 2024-2028: Mitigation schemes

| ACTION NUMBER | CONTROL                       | ACTION  |
|---------------|-------------------------------|---|
| <b>NAP 28</b> | Local authority engagement    | We will engage with local planning authorities to ensure that aircraft operations are considered in the development of sensitive land use.  |
| <b>NAP 29</b> | Noise contours                | We will commission forecast LAeq contours for aircraft noise annually, reporting these and historic noise-contour areas in line with our current planning obligations.  |
| <b>NAP 30</b> | Sound Insulation Grant Scheme | We will provide financial assistance for insulation to those most impacted by aircraft noise. Our Sound Insulation Grants Scheme will be consistent with any obligations we have agreed with Uttlesford District Council. |
| <b>NAP 31</b> | Vortex-damage repair scheme   | We will provide a vortex-damage repair scheme to repair roofs that have been damaged by vortices caused by aircraft.  |
| <b>NAP 32</b> | Community Fund                | We will contribute £150,000 and additionally donate all the money we raise from noise-related penalties to the London Stansted Airport Community Fund.  |





# 14. Monitoring and reporting

Welcome to London Stansted Airport



We understand the important role monitoring noise-related performance plays in the development and implementation of approaches to noise management. Through state-of-the-art noise monitoring systems and regular performance reports, we aim to provide information to stakeholders and stimulate the collaboration necessary to drive performance improvements.

### **Our monitoring system**

Our systems monitor and report on noise from aircraft, and check and record the path of every aircraft arriving at or taking off from the airport. As well as recording individual events, our systems help us understand trends, compare performance and provide robust data for noise modelling. We invest in the system to ensure it is continually improved to meet best practice.

The system has been set up to monitor and assess compliance with the noise controls set out in this Noise Action Plan.

### **Community noise monitoring**

As part of our noise monitoring system, we operate eight fixed noise monitors. These monitors are placed at fixed locations in local communities. They provide us with information about the noise environment and noise from aircraft operating nearby.

In 2022, following the removal of safety measures related to the COVID-19 pandemic, we reintroduced community noise-monitoring using a mobile noise monitor which we can deploy temporarily. We agree the locations where community noise monitoring will be undertaken with our Noise and Track Keeping Working Group (NTKWG). More information about this Group is provided in the chapter on *Effective communication*. Community noise monitoring takes place during the summer months when the airport is busiest. This coincides with the period for which we produce our summer 92-day noise contour maps. To create the

contours, we aim to deploy our mobile monitor for three months between 16 June and 15 September, or for a period close to these dates. Positioning our mobile noise monitor for a prolonged period allows our monitoring to take into consideration switches in runway direction (which are driven by wind direction). Longer periods provide sufficient data for analysis and reporting, and support the validation of noise modelling by the airport. During the summer of 2022, we deployed the mobile noise monitor in Spellbrook. For summer 2023, we have deployed a mobile noise monitor in Albury. Following the deployment of the mobile noise monitor, we commission independent noise experts to review the findings of the monitoring period. They produce a report which we present to the NTKWG and publish on our website.

As part of our Noise Action Plan 2024-2028, we propose to install an additional two fixed noise monitors and to introduce a programme of independent noise assessments and reports. The reports will be similar to those we commission for community noise monitoring from our fixed noise monitor locations.

### **Noise-related reporting**

We believe it is important to share performance reports with stakeholders to inform discussion. Stakeholders include our NTKWG, the Stansted Airport Consultative Committee (STACC), our airline partners and local communities.

During our last Noise Action Plan we worked with the NTKWG and STACC to develop and introduce a number of new and updated performance reports. They cover performance against the noise controls described earlier in this Noise Action Plan, and include an environmental dashboard developed with the Environmental Issues Group of the STACC. Many of the reports we produce are also shared on our website which includes information about track-keeping performance, noise infringements, continuous descent approaches, detailed reports on noise complaints and the results of noise modelling.

As part of our Noise Action Plan 2024-2028, we propose further development of our noise-related reporting, including the development of further metrics for consolidation into a noise-related performance league table. The table will rank the performance of airlines operating at the airport against a range of noise measures. Once developed, we plan to publish the league table on our website.



### Independent assurance

Our approach to noise management is considered as part of our environmental management system, which is independently audited as part of our certification to the international environmental management standard ISO 14001. Additionally, many of the noise-related performance measures discussed in this Noise Action Plan are independently verified when they are disclosed in Stansted Airport and MAG’s annual Corporate Social Responsibility Reports.

Action table 10. Noise Action Plan 2024-2028: Monitoring and reporting

| ACTION NUMBER | CONTROL                                 | ACTION   |
|---------------|---|--|
| <b>NAP 33</b> | Community noise-monitoring programme    | We will maintain our community noise-monitoring programme and seek feedback as to appropriate locations for future monitoring.   |
| <b>NAP 34</b> | Additional noise monitors               | We will seek planning permission to install two additional fixed noise monitors to increase our community monitoring coverage. The locations of these noise monitors will be agreed with the Noise and Track Keeping Working Group.  |
| <b>NAP 35</b> | Performance monitoring and reporting    | We will monitor performance with the controls established in this Noise Action Plan, and report them quarterly on our website.   |
| <b>NAP 36</b> | Quarterly Flight Evaluation Unit Report | We will produce a detailed quarterly Flight Evaluation Unit report, and publish it on our website. The report will include information on key performance indicators, such as continuous climb departures, track-keeping, noise violations, continuous descent approaches, performance-based navigation and night operations, including dispensations. We will discuss the contents of the report with the Noise and Track Keeping Working Group, updating the metrics it contains as agreed with the Group. |
| <b>NAP 37</b> | Quiet-flight performance report         | We will publish a new airline noise-performance report from 2025, based on a range of key noise criteria including, but not limited to, continuous descent approaches, continuous climb departures, adherence to noise limits, departure track-keeping and certified aircraft noise levels. The effectiveness of this report will be reviewed on a regular basis with the Noise and Track Keeping Working Group and Environmental Issues Group.  |
| <b>NAP 38</b> | Independent audit                       | There will be an annual audit of the noise-management system by independent auditors. The audit will consider noise events, track-keeping, continuous descent approaches, continuous climb departures and complaint handling.  |





# 15. Effective communication





Working with our neighbours, local communities, colleagues, customers and on-site businesses is an important part of our approach to noise management. We fully recognise the importance of carefully listening to and discussing any noise concerns with our stakeholders.

At London Stansted Airport we have a long-term commitment to make a positive difference to the quality of life in our local community. As part of this commitment, we are dedicated to building and sustaining a positive dialogue with our neighbours: informing, involving, consulting and reporting back to them.

## Formal consultation groups

### Stansted Airport Consultative Committee

The Stansted Airport Consultative Committee (STACC) is the formal body liaising between Stansted Airport and our neighbouring communities and other stakeholders. It provides an opportunity for the exchange of information between Stansted Airport and interested parties. STACC members act as representatives of their organisations, which include:

- Users of the airport
- Local authorities in the vicinity of the airport
- Other organisations from the surrounding community that have an interest in the operations (for example, community, business and consumer groups)

As well as providing feedback on community sentiment about the impact of airport operations, the STACC is a primary source of consultation on airport development plans. The STACC meets four times a year, with meetings attended by the airport management team.

The STACC is supported by three sub-groups. These include the Environmental Issues Group (EIG), which considers the impact of the airport on the local community and environment. The EIG covers a range of different environmental matters, including flight tracks, noise, air quality, the conservation and discharge of water, waste, surface transport, biodiversity, archaeology and climate change.

More information about the STACC is available on its [website](#).

### Stansted Airport Youth Forum

Our Corporate Social Responsibility (CSR) Strategy 'Working together for a brighter future' builds on our strong track record of improving the way we operate as a business for the benefit of the communities, regions and environment around our airports.

Our strategy is delivered through three strategic priorities: Zero Carbon Airports, Opportunity for All and Local Voices. While we value the important role the STACC plays in enabling us to understand the issues which matter most to our local communities, we recognise that the membership of this committee is not always as representative of our communities as we might like. So that we can hear directly from a broader group of local voices, our CSR Strategy included a commitment that we would establish a new Stansted Airport Youth Forum.

By engaging with local young people through a Youth Forum, we aim to:

- Ensure that local young people are better informed about Stansted Airport as a business, major employer, travel hub and the national and international gateway to the region.
- Understand more about what young people want from their airport: what is important to them as travellers, the workforce of the future and our neighbours.

- Identify and seek to address the issues that matter most to young people living near to our airport.

The Youth Forum was established in November 2022, and will help us listen to the voices of young people in our local communities. The Youth Forum will help to shape and inform our future as a business. We expect that the Youth Forum will also provide important contributions to the STACC, helping ensure young people's voices are considered in future consultations.

### Noise and Track Keeping Working Group

The Noise and Track Keeping Working Group (NTKWG) is a group of experts brought together and chaired by Stansted Airport. The NTKWG includes a balanced membership that takes expert input from key stakeholders within the aviation industry and from those who represent the interests of local communities. Members are drawn from central and local government; the air traffic control organisation, NATS; and aircraft operators. To create a link to the STACC, we invite the Chair of the EIG and STACC's Technical Advisor to participate in meetings of the NTKWG. Meetings are also attended by management of the airport.

The NTKWG meets four times a year, looking in depth at noise issues impacting local communities. The group receives a wide range of noise-related performance reports and provides important contributions to the development of the approaches we take to noise management.



## Aviation industry collaboration

### Flight Operations Committee

The Stansted Airport Flight Operations Committee (FLOPSC) meets quarterly to discuss all operational and safety matters relating to operations at the airport. This quarterly meeting has representation from aircraft operators, Air Traffic Control (including the Area Control Centre), Airfield Operations and the Flight Evaluation Unit, and is chaired by the Head of Airside Operations. Operational performance and trend data are presented to identify any performance issues that can be addressed.

### Aircraft Noise Monitoring Advisory Committee (ANMAC)

The Aircraft Noise Management Advisory Committee (ANMAC) was set up by the Department for Transport to advise on policy relating to aircraft noise at Heathrow, Gatwick and Stansted Airports. It continues to advise the Department on technical and policy aspects of aircraft noise mitigation and track-keeping.

ANMAC is the primary body for advising Government on noise controls at Heathrow, Gatwick and Stansted Airports. The Committee also fulfils a technical and consultative role for specific projects on behalf of the Airspace and Noise Engagement Group (ANEG). Stansted Airport is a member of ANEG, alongside members from other London airports, the Civil Aviation Authority, airport consultative committees and the air traffic control organisation, NATS.

### Sustainable Aviation

The Manchester Airports Group, which is the parent company of Stansted Airport, is a founding member of the coalition that set up Sustainable Aviation. Sustainable Aviation represents all parts of the UK aviation industry, including airports, airlines, air traffic control organisations and aerospace manufacturers. Working in collaboration through Sustainable Aviation, the UK aviation industry has published positions on aviation noise, including the Sustainable Aviation Noise Road Map, and industry codes of practice.

## Stansted Airport in the community

### Community outreach events

Listening to the voices of our closest communities is an essential part of our business. It is only by working with our neighbours that we can ensure that the impacts associated with living close to an airport can be understood, managed, and acted upon. Listening to local voices also provides us with an opportunity to understand how we can maximise the benefits of the airport's activity for local people.

Outreach events give us an opportunity to meet and talk directly to local people about Stansted Airport, and to respond to queries in an informal way. These meetings allow for instant and valuable two-way conversations that also help us shape our plans.

Following the relaxation of the public health measures put in place during the COVID-19 pandemic, in 2022 we restarted our annual programmes of community outreach events in the communities closest to the airport.

In addition to our annual programme of community outreach events, we arrange and advertise additional events to listen to views on specific issues. For example, we will be talking to our stakeholders and the local community as part of our Future Airspace Project.

### Parish council meetings and Parish Engagement Forum

We believe engagement with our local parish councils provides an effective way for us to communicate with a wide range of residents. We will continue to meet regularly with parish councils in areas most impacted by our airport operations. We will also hold quarterly online forums to which representatives of local parish councils are invited.

### Community survey

Regular community surveys give us the opportunity to gather feedback from a wide variety of stakeholders and residents. The survey results help us gain an understanding of the issues that are affecting local areas. They also help us to identify potential gaps in our community engagement programme and areas of the community that could benefit from our support.

We share the findings from our surveys with the STACC, and publish a summary as well as publishing details on our website. Our last survey, conducted in 2022, provided information which helped us:

- Introduce a focused communications campaign to help communicate our CSR Strategy and its three strategic priorities
- Bring forward regular newsletters, special reports and community information to stakeholders updating them on progress against our CSR Strategy, which includes noise management
- Refresh our stakeholder database, increasing the number of local stakeholders who now receive community-focused communications about the airport
- Shift our focus to direct electronic communications rather than ad-hoc drop-in sessions in local communities which had become poorly attended
- Identify high-volume or high-footfall events to undertake focused outreach

We will continue to use surveys to seek feedback from the local community on a regular basis.



## Community Flyer

In response to community feedback, and following a review of how we share information with people in our local community, we launched the Stansted Airport Community Flyer in September 2022.

The Community Flyer provides local communities with quarterly updates and information about our community engagement initiatives as well as our environmental, education and employment programmes. The Community Flyer is distributed electronically to people who have asked to be added to our stakeholder database. It is also published on our website and publicised using digital channels and social-media platforms.

### Providing information to local communities

In addition to the engagement activities outlined above, we also provide a wide range of information to local residents through our website. This includes a wide range of noise-related performance reports, which present the results of our monitoring of noise in local communities and airlines' compliance with noise abatement procedures.

Additionally, we also provide WebTrak, a website where local people can replay the tracks taken by aircraft operating at Stansted Airport. The website also provides information about flights, including the noise levels recorded at our noise monitors. Local people can use WebTrak to report flights which have caused disturbance by registering a complaint which is investigated by our Flight Evaluation Unit.

During this Noise Action Plan, we will continue to build on the information local people can access about noise management and noise-related performance on our website. We propose to develop and introduce an online portal which provides local communities with location-specific information about noise management and performance. We will also review how we use social media to provide information about operations at Stansted Airport.

## Noise complaints

We welcome feedback from individuals who are impacted by noise from airport operations. Members of the community can contact us in a range of ways, including by telephone, post, email, through a form on our website or directly via WebTrak.

Our Flight Evaluation Unit records and investigates complaints using our noise and track keeping system. Responses are provided within eight working days.

Information about complaints is shared regularly with community representatives, the STACC and at meetings of the NTKWG. This provides a valuable forum to explore noise concerns and discuss potential solutions.

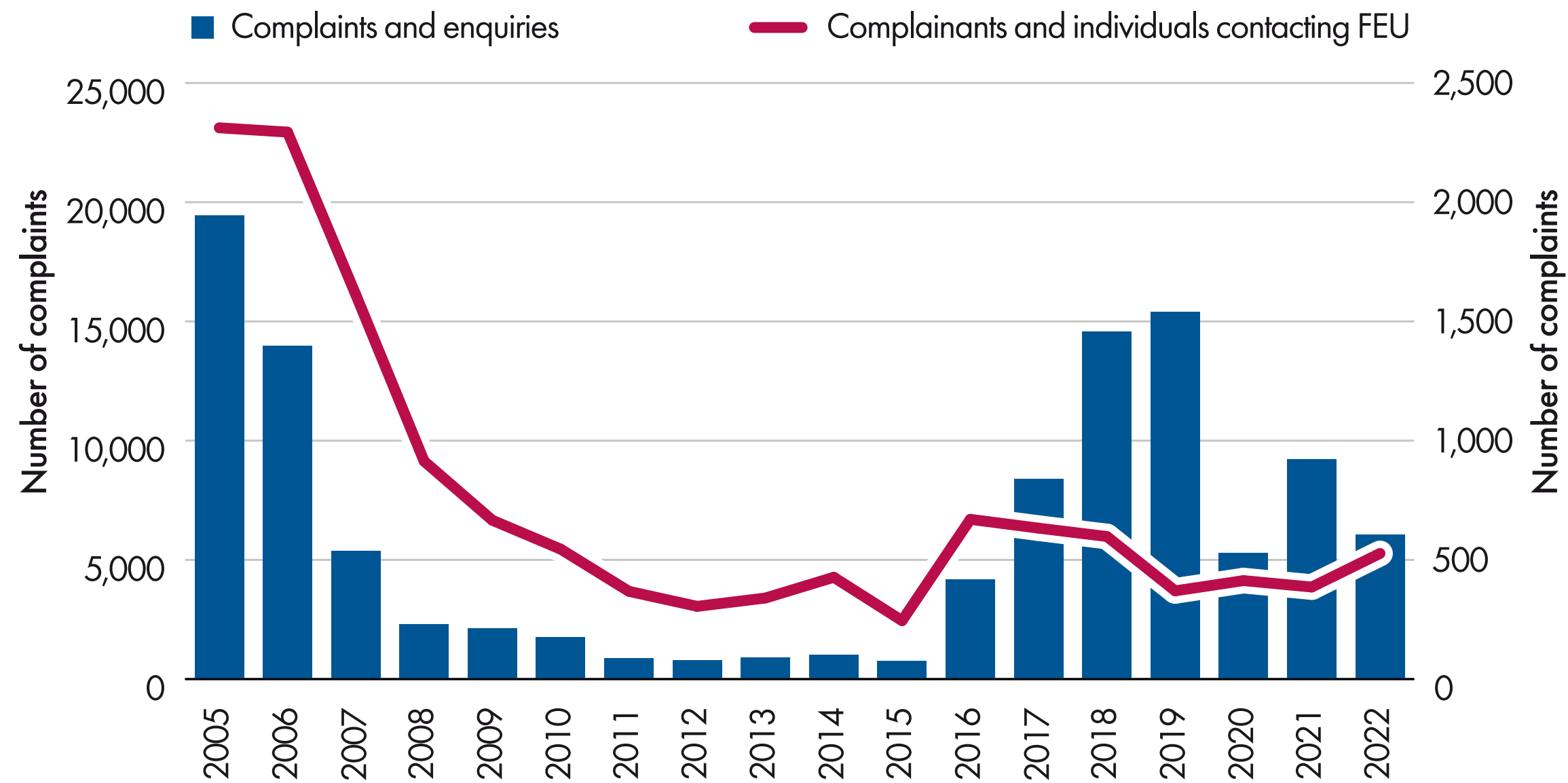
As a result of the COVID-19 pandemic there have been significant changes to operations at the airport during the last five years. During the pandemic the number of passenger flights reduced significantly. Passenger traffic is now recovering and has almost returned to pre-pandemic levels. We understand that the pandemic also led to changes in the way people live their lives. For example, working from home is now more common than it was before the COVID-19 pandemic, and some people moved house at a time which may not have been representative of the normal environment.

The changes described above mean that information about the number of complaints received during and immediately after the COVID-19 pandemic is likely to be unusual. For example, in 2020 when there were significantly fewer flights than before the pandemic, we received fewer noise complaints. However, in 2021, when the number of flights was still significantly reduced, we received over 9,000 noise complaints, 81% of which were recorded by one individual. In 2022, four individuals recorded 76% of the noise complaints we received. The number of complaints we have received and the number of individuals contacting us is shown in Figure 29.





Figure 29. Noise complaints received between 2005 and 2022



We will continue to investigate and respond to the noise complaints we receive, and to discuss these with the NTKWG. Where it adds value to our conversations, we will also continue to invite local residents to the airport to demonstrate our noise and track keeping system, and to explain our approaches to noise management. During this Noise Action Plan we will review our complaint response systems, seeking to respond more quickly and to take advantage of improvements in technology. We will also develop and update our policy which explains the ways in which we investigate and respond to noise-related enquiries from local communities.





Action table 11: Noise Action Plan 2024-2028: Effective communication

| ACTION NUMBER | CONTROL  | ACTION  | ACTION NUMBER | CONTROL   | ACTION   |
|---------------|--|---|---------------|---|--|
| <b>NAP 39</b> | Stakeholder engagement                               | We will continue to engage with our stakeholders to discuss noise-related performance, listen to feedback, and identify and implement improvement opportunities.  | <b>NAP 45</b> | Review and develop our communications materials         | We will review our communication materials and website each year to ensure ease of understanding and to develop the information available to local communities.  |
| <b>NAP 40</b> | Engagement with stakeholder groups                   | We will work with our Noise and Track Keeping Working Group and Environmental Issues Group to identify and develop solutions to community concerns, and seek feedback on our noise management performance.  | <b>NAP 46</b> | Online noise portal for local communities               | We will develop and introduce an online portal providing local communities with location-specific information about noise management and performance.  |
| <b>NAP 41</b> | Aircraft Noise Monitoring Advisory Committee (ANMAC) | In partnership with our Noise and Track Keeping Working Group and the Environmental Issues Group of the Stansted Airport Consultative Committee, we will present issues and facilitate debate with the Aircraft Noise Monitoring Advisory Committee, and will implement initiatives agreed with the Committee.  | <b>NAP 47</b> | Social media  | We will review how we use social media to provide information to local communities about operations at Stansted Airport.   |
| <b>NAP 42</b> | Reporting on our progress                            | We will produce an annual report, presented to the Noise and Track Keeping Working Group and London Stansted Airport Consultative Committee, summarising progress made by the airport against this Noise Action Plan.   | <b>NAP 48</b> | Receiving complaints and enquiries                      | We will offer a range of options for people to contact us in relation to complaints or enquiries regarding aircraft noise. These will include email, website and telephone contact options.  |
| <b>NAP 43</b> | Community survey                                     | We will carry out a regular community survey to collect views on how effectively the airport is managing aircraft noise issues as well as other issues. Results from the survey will be shared with the Noise and Track Keeping Working Group and London Stansted Airport Consultative Committee, and used to inform any future noise actions.  | <b>NAP 49</b> | Recording and investigating complaints                  | We will record and investigate all complaints relating to aircraft operations, and publish statistics in line with agreed complaints-handling policy.  |
| <b>NAP 44</b> | Publishing noise-related information                 | We will continue to develop the ways in which we share noise-related information with our local communities, including continuing to: <ul style="list-style-type: none"> <li>• Develop and update our suite of community information fact sheets, including updated flight-path maps.</li> <li>• Publish additional noise indicators including number-above contours.</li> <li>• Share noise-management information in our regular community newsletter.</li> <li>• Provide public access to flight-tracking information using our WebTrak tool.</li> </ul> | <b>NAP 50</b> | Complaints and enquiries, engaging with local residents | We will invite local residents and complainants to the airport to demonstrate our noise and track-keeping system and to explain our noise-mitigation schemes, where we perceive there to be a benefit.   |
|               |  |   | <b>NAP 51</b> | Complaints handling policy                              | We will develop and update our policy that explains the way in which we investigate and respond to noise-related enquiries from local communities.   |
|               |  |   | <b>NAP 52</b> | Complaints handling process                             | We will regularly review our process for handling noise complaints and enquiries to improve the transparency and effectiveness of the system. This will include consultation with the Noise and Track Keeping Working Group and Stansted Airport Consultative Committee. Our first review will be complete by mid-2024 with agreed actions implemented by the end of 2025. |
|               |  |   | <b>NAP 53</b> | Annual noise-complaints report                          | We will publish an annual noise complaints report, seeking feedback from the Noise and Track Keeping Working Group to help develop the report and its contents.  |



# 16. Consultation response

This chapter of our Noise Action Plan will be drafted when we have reviewed responses to the consultation. We will provide information about the feedback we receive and how we have responded to it.





# 17. Glossary of terms



| TERM                | MEANING  |
|---------------------|--|
| <b>A-CDM</b>        | Airport Collaborative Decision Making; technology to make the operation more efficient and reduce the time an aircraft uses its engines while on the ground  |
| <b>ACOG</b>         | Airspace Change Organising Group – set up by the CAA and the DfT in 2019 to coordinate the national programme of change and create a strategic national Masterplan   |
| <b>AIP</b>          | The UK Aeronautical Information Publication  |
| <b>ANOMS</b>        | Aircraft Noise and Operations Monitoring System  |
| <b>APU</b>          | Auxiliary power unit   |
| <b>ATC</b>          | Air Traffic Control  |
| <b>ATM</b>          | Air transport movement   |
| <b>CAA</b>          | UK Civil Aviation Authority  |
| <b>CAP 1616</b>     | Guidance on the regulatory process for changing the notified airspace design and planned and permanent redistribution of air traffic.  |
| <b>CATM</b>         | Cargo air transport movement   |
| <b>CDA / CDO</b>    | Continuous decent approach / Continuous descent operation – a technique to descend aircraft smoothly in order to reduce changes in thrust and reduce noise   |
| <b>CCD / CCO</b>    | Continuous climb departure / Continuous climb operations – the same technique to climb aircraft continuously to reduce noise   |
| <b>dB(A)</b>        | A unit of sound pressure level, adjusted in accordance with the A-weighting scale, which takes into account the increased sensitivity of the human ear at some frequencies   |
| <b>Decibel (dB)</b> | A logarithmic unit of measurement that expresses the magnitude of a physical quantity (in this case, sound) relative to a specified or implied reference level. Its logarithmic nature allows very large or very small ratios to be represented by a convenient number. Being a ratio, it is a dimensionless unit. Decibels are used for a wide variety of measurements including acoustics; for audible sound A-weighted decibels (dBA) are commonly used |
| <b>Defra</b>        | Department for Environment Food and Rural Affairs (UK Government)  |
| <b>DfT</b>          | Department for Transport (UK Government)   |

| TERM                           | MEANING  |
|--------------------------------|--|
| <b>EPNdB</b>                   | Effective perceived noise measured in decibels – measurement involves analyses of the frequency spectra of noise events as well as the maximum level   |
| <b>EIG</b>                     | Environmental Issues Group – a sub-group of the Stansted Airport Consultative Committee  |
| <b>FEGP</b>                    | Fixed electrical ground power  |
| <b>FEU</b>                     | Flight Evaluation Unit – a team of experts who track and monitor all airport operations at MAG airports and respond to noise complaints  |
| <b>FLOPSC</b>                  | Flight Operations Committee  |
| <b>GPU</b>                     | Ground power unit  |
| <b>ICAO</b>                    | International Civil Aviation Organization  |
| <b>ILS</b>                     | Instrument landing system  |
| <b>ISO 14001</b>               | International standard that sets out the criteria for an environmental management system against which a company can be certified  |
| <b>L<sub>Aeq</sub> 16-hour</b> | The A-weighted average sound level over the 16-hour period from 07:00 to 23:00   |
| <b>L<sub>day</sub></b>         | The A-weighted average sound level over the 12-hour day period from 07:00 to 19:00   |
| <b>L<sub>den</sub></b>         | The day/evening/night level is a logarithmic composite of the L <sub>day</sub> , L <sub>evening</sub> , and L <sub>night</sub> levels, but with weightings of 5dB(A) added to the L <sub>evening</sub> value and of 10dB(A) added to the L <sub>night</sub> value  |
| <b>L<sub>Aeq</sub></b>         | Equivalent sound level of aircraft noise in dBA, often called equivalent continuous sound level. For conventional historical contours this is based on the daily average movements that take place in the 16-hour period (07:00-23:00 LT) during the 92-day summer period, 16 June to 15 September inclusive. They can also be produced based on annual traffic movements. |
| <b>L<sub>evening</sub></b>     | The A-weighted average sound level over the four-hour evening period of 19:00-23:00 hours  |
| <b>L<sub>max</sub></b>         | Maximum A-weighted sound level   |
| <b>L<sub>night</sub></b>       | The A-weighted average sound level over the eight-hour night period from 23:00 to 07:00  |
| <b>LOAEL</b>                   | Lowest observed adverse effect level (which in this plan relates to aircraft noise) – this is the level above which adverse effects on health and quality of life can be detected  |



| <b>TERM</b>                 | <b>MEANING</b>   |
|-----------------------------|--|
| <b>LTMA</b>                 | London Terminal Manoeuvring Area – the area of controlled airspace that surrounds Stansted Airport   |
| <b>MAG</b>                  | Manchester Airports Group – owner of Stansted Airport  |
| <b>NAP</b>                  | Noise Action Plan  |
| <b>NATS</b>                 | Formerly known as National Air Traffic Services Ltd – NATS is licensed to provide en-route air-traffic control for the UK and the eastern part of the North Atlantic   |
| <b>NPR</b>                  | Noise preferential route   |
| <b>NTKWG</b>                | The Noise and Track Keeping Working Group – membership of the Group includes the Department for Transport, NATS and representatives of local authorities near to the airport   |
| <b>PBN</b>                  | Performance based navigation – a technology using satellite navigation information to improve the accuracy of aircraft flight paths  |
| <b>QC</b>                   | Quota count – each aircraft type is classified and awarded a quota count value depending on the amount of noise it generates under controlled certification conditions; the quieter the aircraft, the smaller the QC value |
| <b>RET</b>                  | Reduced engine taxiing – ground movement of aircraft with at least one engine turned off   |
| <b>SDP</b>                  | Stansted Airport Sustainable Development Plan  |
| <b>SEL</b>                  | A single event noise contour   |
| <b>SIG(S)</b>               | Sound Insulation Grant (Scheme)  |
| <b>SOAEL</b>                | Significant observed adverse effect level (which in this plan relates to aircraft noise) – this is the level above which significant adverse effects on health and quality of life occur                                   |
| <b>Sofs</b>                 | UK Secretary of State  |
| <b>STACC</b>                | Stansted Airport Consultative Committee  |
| <b>STAL</b>                 | Stansted Airport Limited   |
| <b>Sustainable Aviation</b> | A UK aviation industry initiative aiming to set out a long-term strategy for the industry to address its sustainability issues   |



# 18. Appendix



## Appendix A – Consultees

During the consultation on our Noise Action Plan 2024-2028, we welcome feedback from all stakeholders.

We have identified the following stakeholders who will receive formal notification that our consultation has launched:

### Members of Parliament:

- Rt Hon Kemi Badenoch MP – Saffron Walden
- Rt Hon Robert Halfon MP – Harlow
- Rt Hon James Cleverly MP – Braintree
- Alex Burghart MP – Brentwood and Ongar
- Julie Marson MP – Hertford and Stortford
- Rt Hon Sir Oliver Heald KC MP – North East Hertfordshire
- Rt Hon Lucy Frazer KC MP – South East Cambridgeshire
- Anthony Browne MP – South Cambridgeshire
- Rt Hon Priti Patel MP – Witham

### County councils:

- Essex County Council
- Hertfordshire County Council

### District councils:

- Uttlesford District Council
- Harlow Council
- East Hertfordshire District Council
- Epping Forest District Council
- Braintree District Council

### Town councils:

- Bishops Stortford Town Council
- Great Dunmow Town Council
- Ware Town Council
- Saffron Walden Town Council
- Buntingford Town Council

### Parish councils within the area of Uttlesford District Council:

- Arkesden
- Ashdon
- Aythorpe Roding
- Barnston
- Berden
- Birchanger
- Broxton
- Chickney

- Chrishall
- Clavering
- Elmdon, Duddenhoe End and Wenden Lofts
- Elsenham
- Farnham
- Felsted
- Flitch Green
- Great Canfield
- Great Chesterford
- Great Dunmow
- Great Easton and Tilty
- Great Hallingbury
- Hatfield Heath
- Hempstead
- Henham
- High Easter
- High Roding
- Langley
- Leaden Roding
- Lindsell
- Little Bardfield
- Little Canfield
- Little Dunmow
- Little Easton
- Little Hallingbury
- Littlebury
- Manuden
- Margaret Roding
- Newport
- Quendon and Rickling
- Saffron Walden
- Swards End
- Stansted Mountfitchet
- Stebbing
- Strethall
- Takeley
- Thaxted
- Ugley
- Wendens Ambo
- White Roding
- Wicken Bonhunt
- Widdington
- Wimbish



**Parish councils within the area of East Herts District Council:**

- Albury
- Anstey
- Bishop’s Stortford Town
- Braughing
- Brent Pelham/Meesden
- Eastwick and Gilston
- Furneux Pelham
- High Wych
- Hormead
- Hunsdon
- Little Hadham
- Much Hadham
- Sawbridgeworth Town
- Standon
- Stanstead Abbots
- Stocking Pelham
- Thorley
- Thundridge
- Wareside
- Westmill
- Widford

**Parish councils within the area of Epping Forest District Council:**

- Abbess Beauchamp and Berners Roding
- Fyfield
- High Laver
- Little Laver
- Magdalen Laver
- Matching
- Moreton
- North weald Bassett
- Roydon
- Sheering
- Willingate

**Parish councils within the area of Chelmsford City Council:**

- Chignall
- Good Easter
- Great Waltham
- Mashbury
- Pleshey
- Roxwell
- Braintree
- Great Bardfield
- The Sailings

**Parish councils within the area of North Herts Council:**

- Nuthampstead

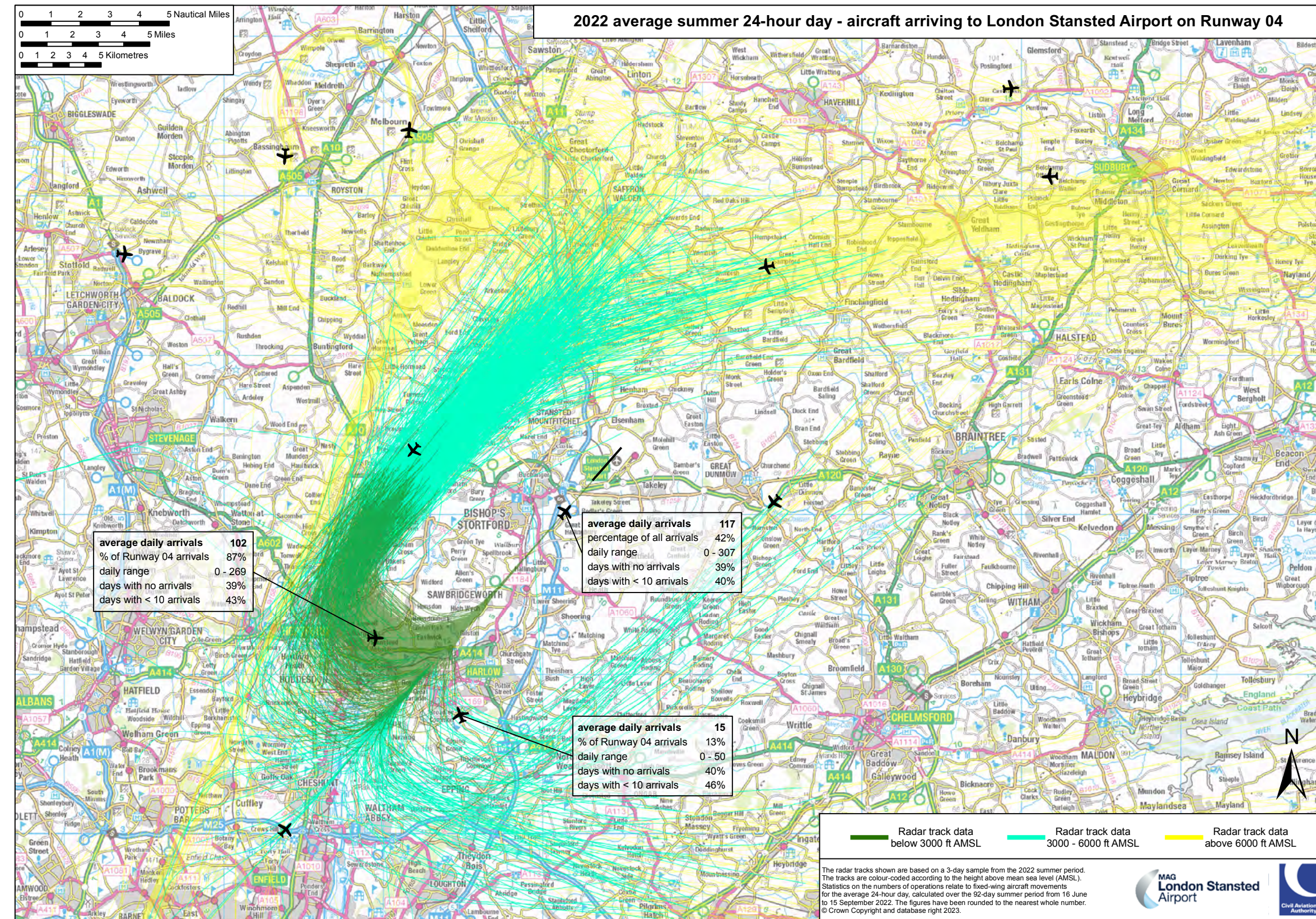
**Aviation industry:**

- Stansted Airport Consultative Committee (inc. EIG)
- Flight Operations Committee (FLOPSC)
- Airport Operators Committee (AOC)
- Noise and Track Keeping Working Group (NTKWG)
- NATS

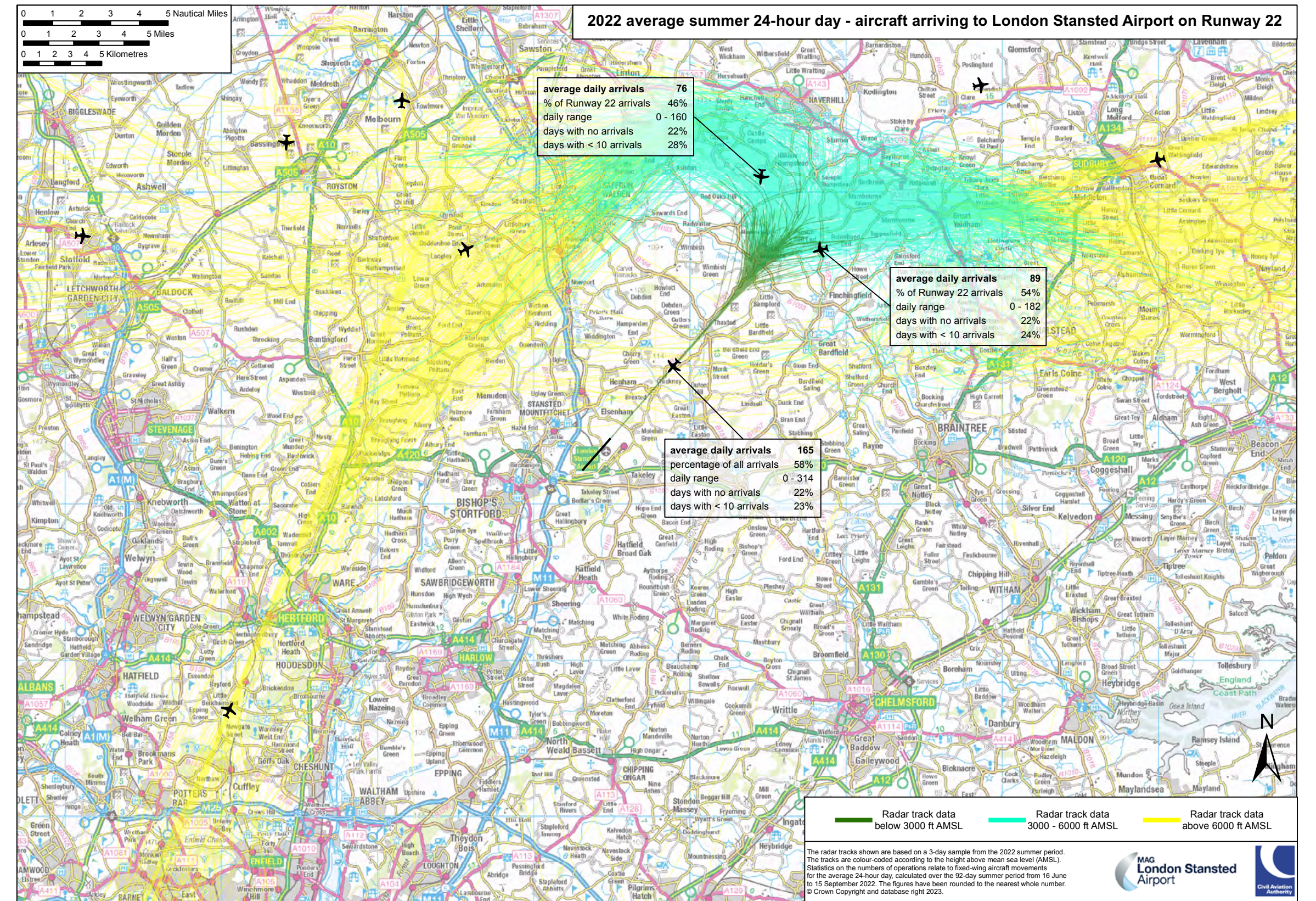


# Appendix B – Arrival and departure maps

2022 Runway 04 Arrivals

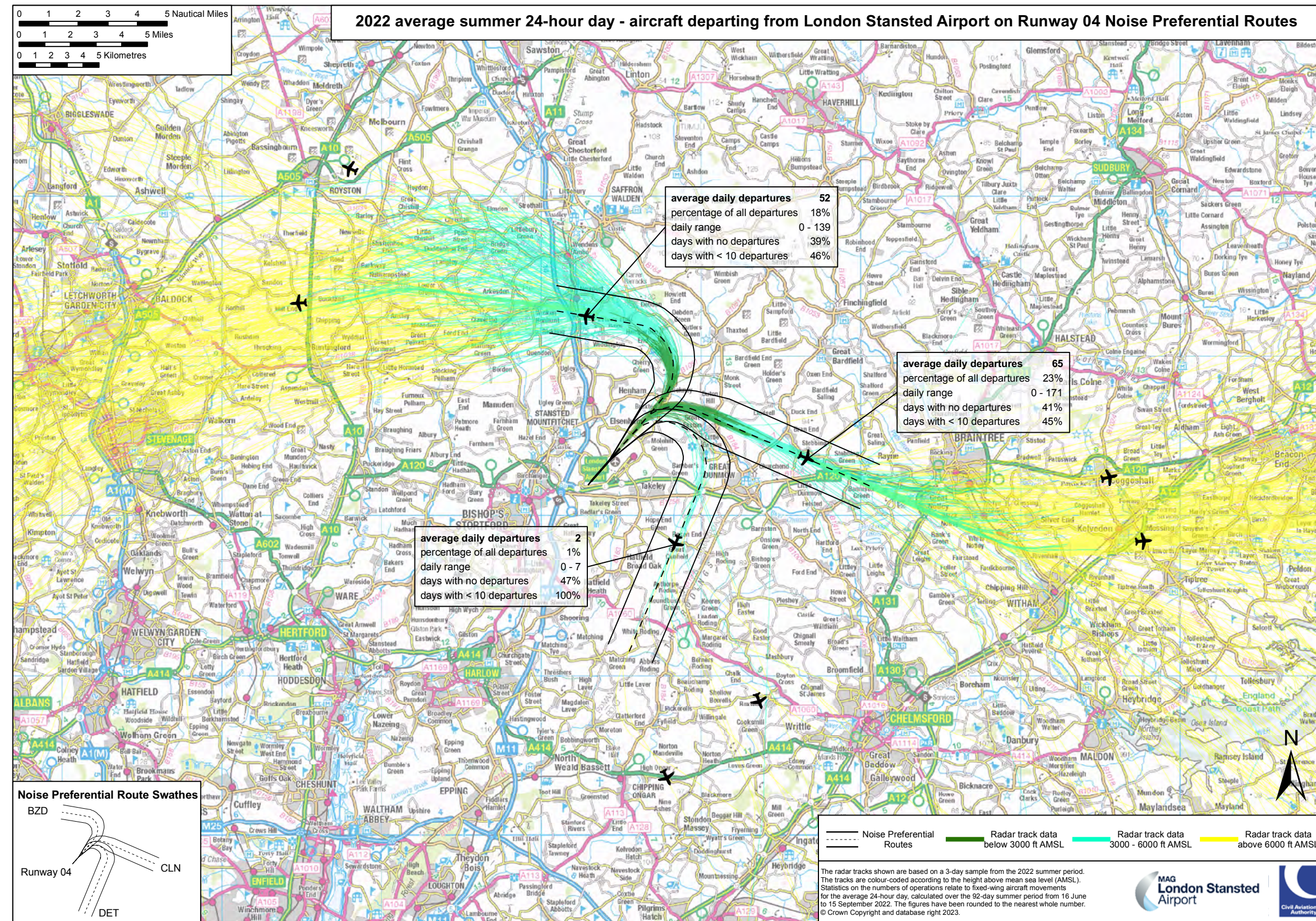


2022 Runway 22 Arrivals

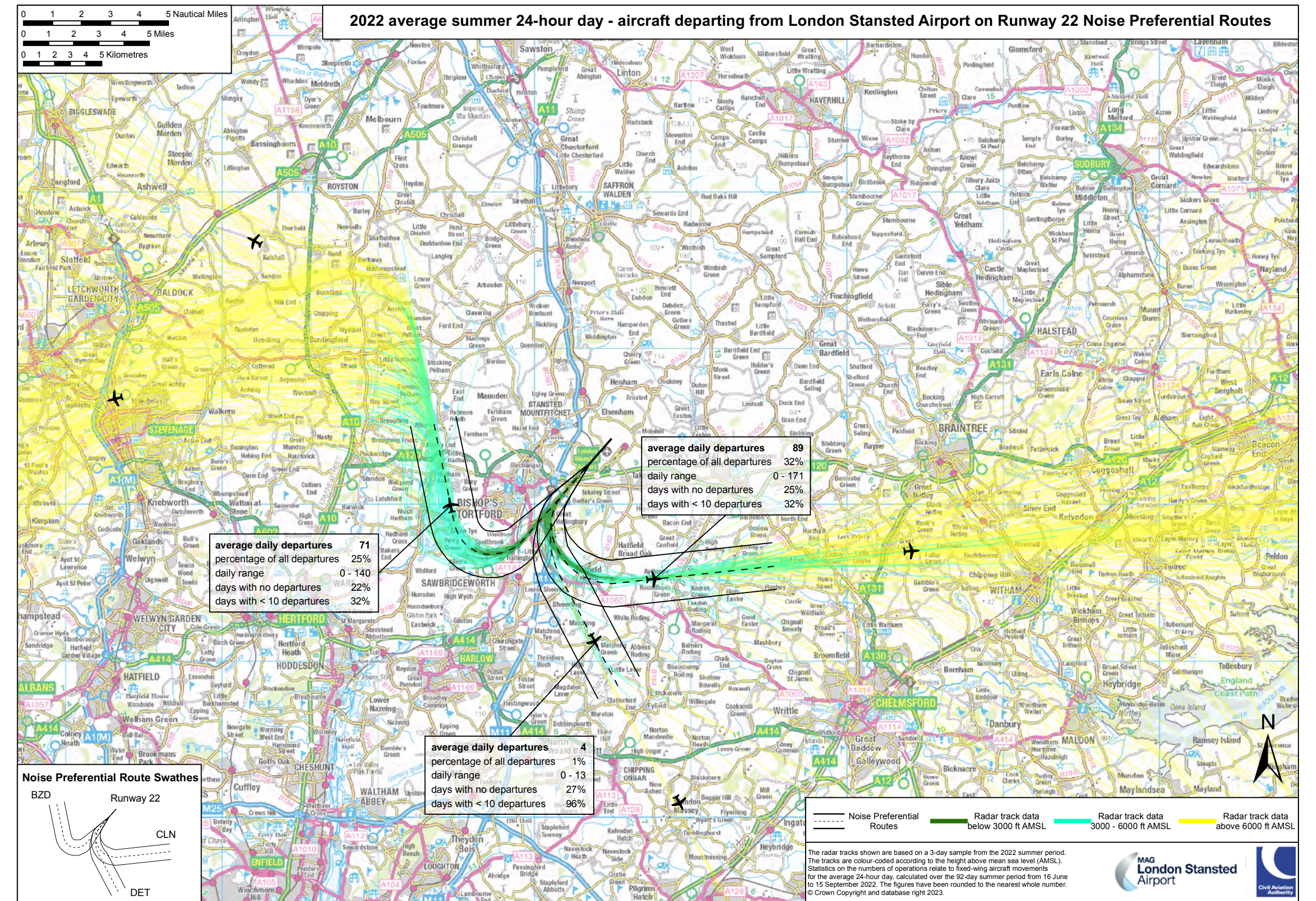




2022 Runway 04 Departures



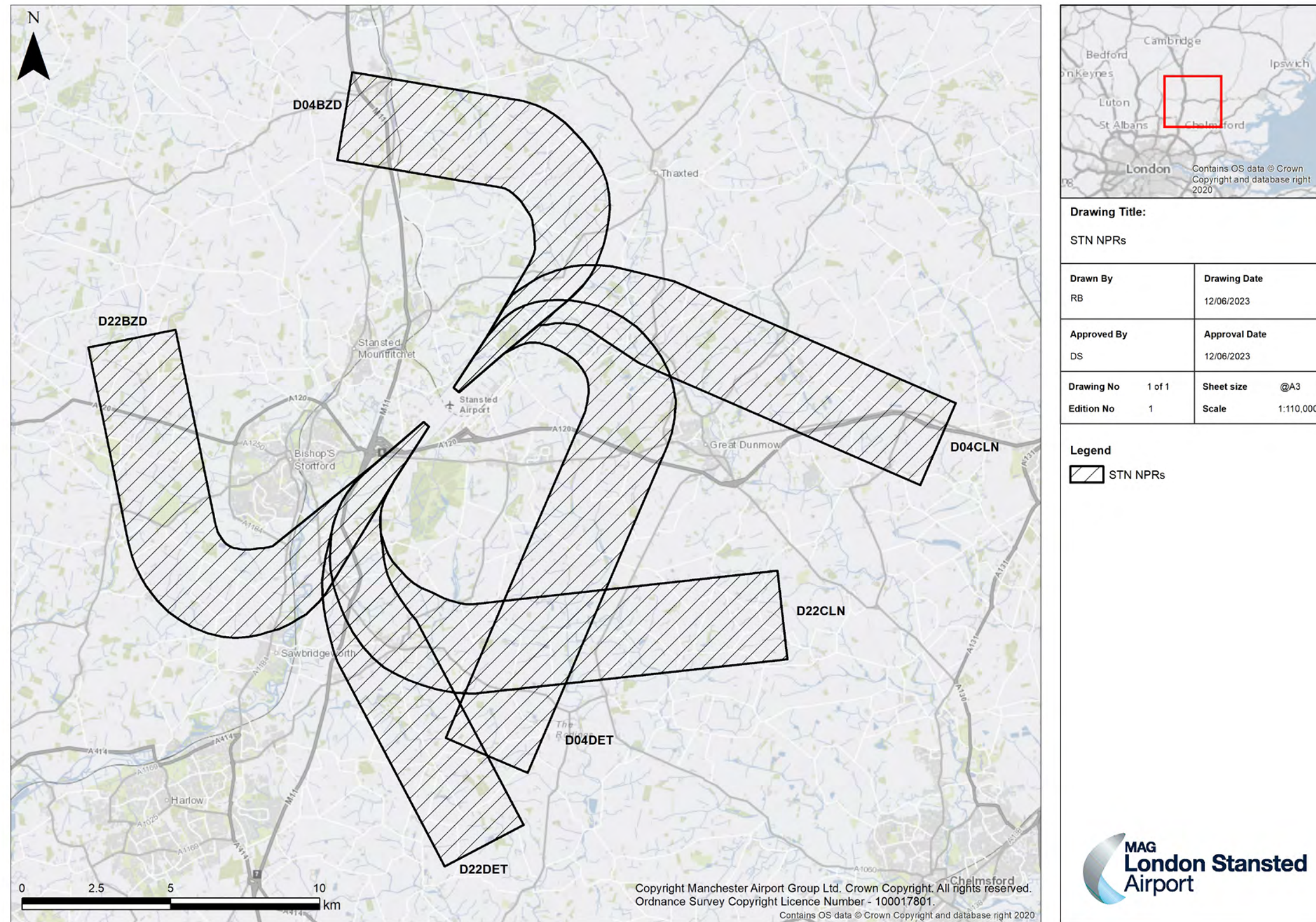
2022 Runway 22 Departures





# Appendix C – Noise preferential routes

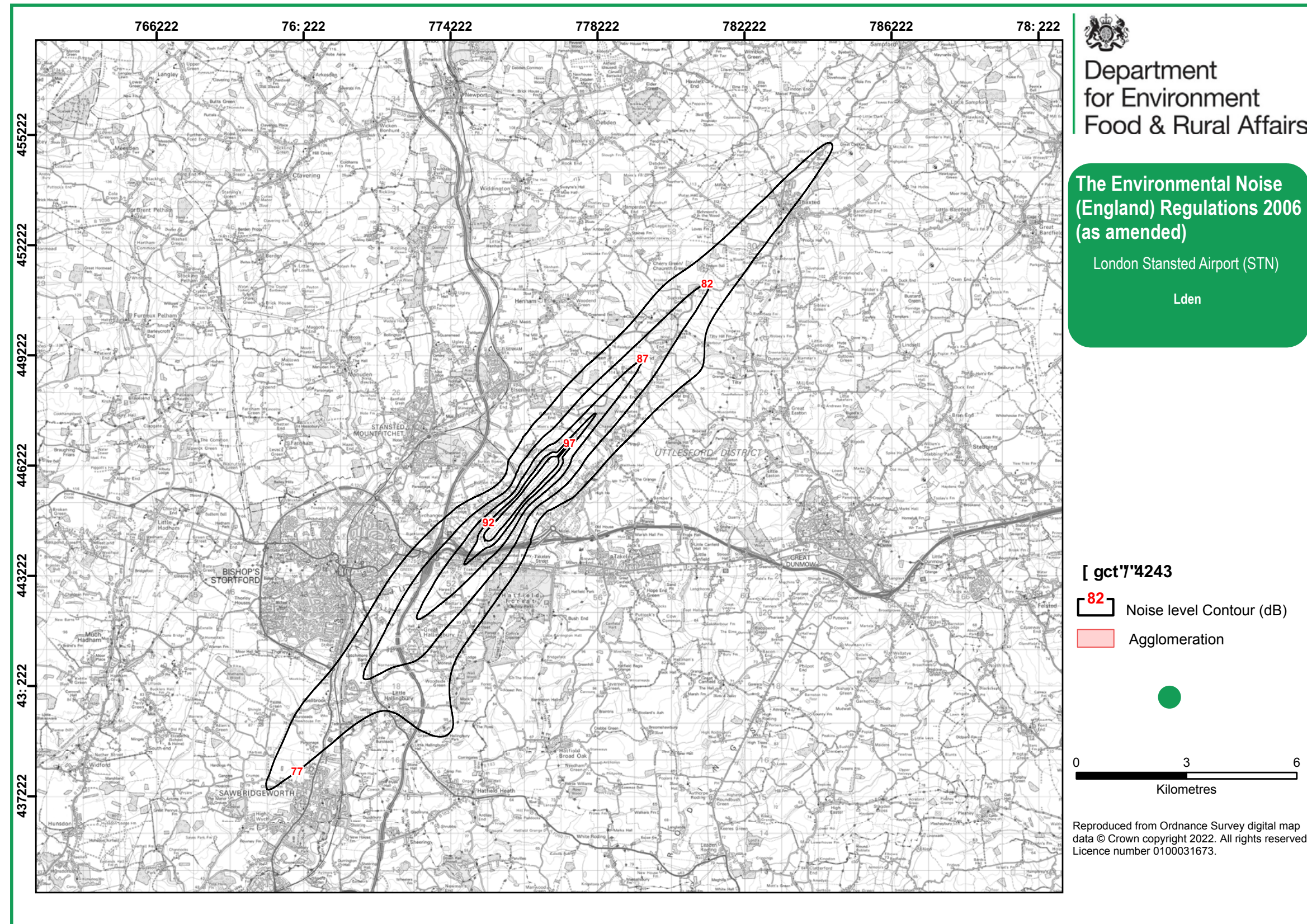
## Stansted Noise Preferential Routes



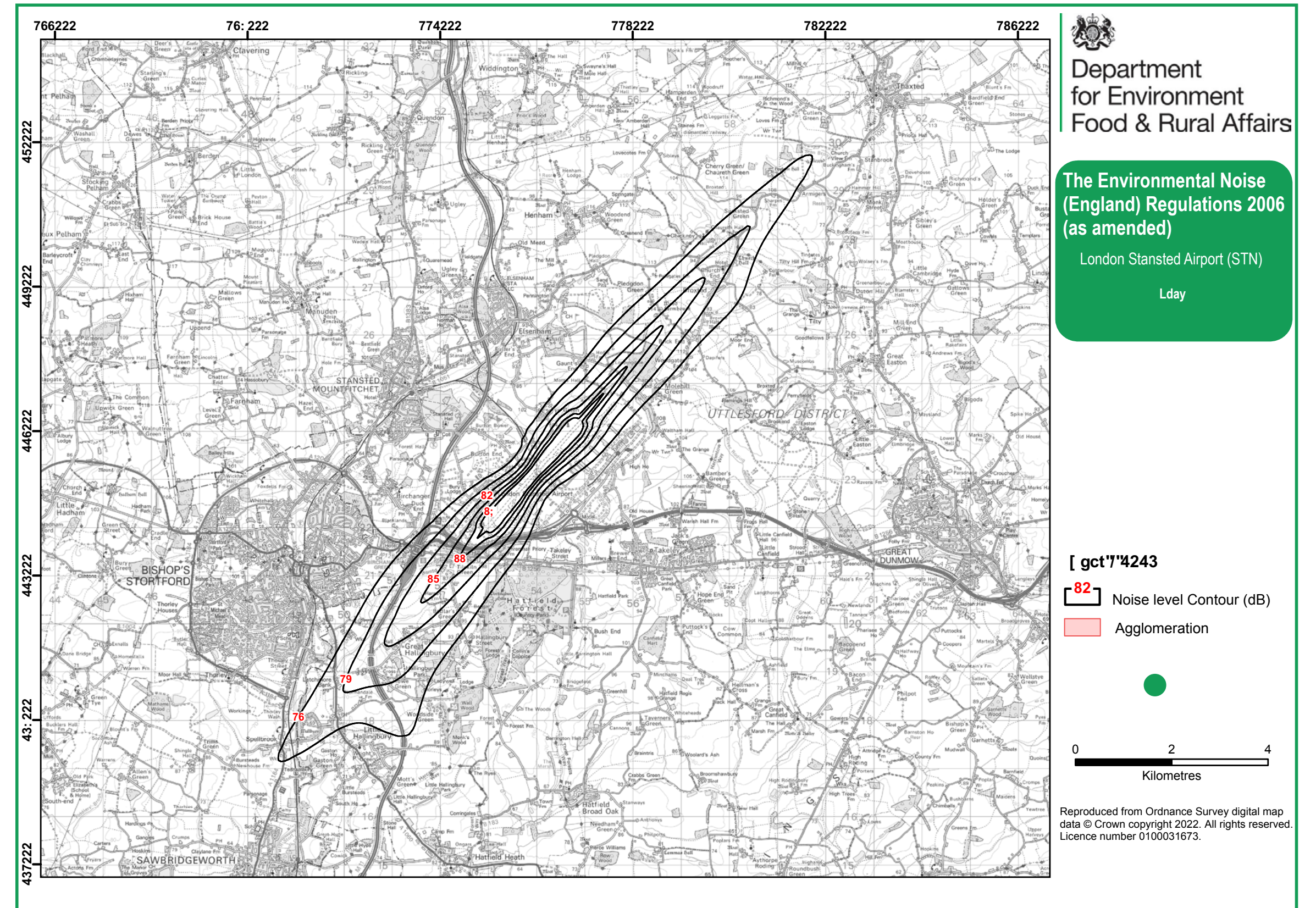


# Appendix D – Noise-contour maps and data tables

DEFRA 2021  $L_{den}$

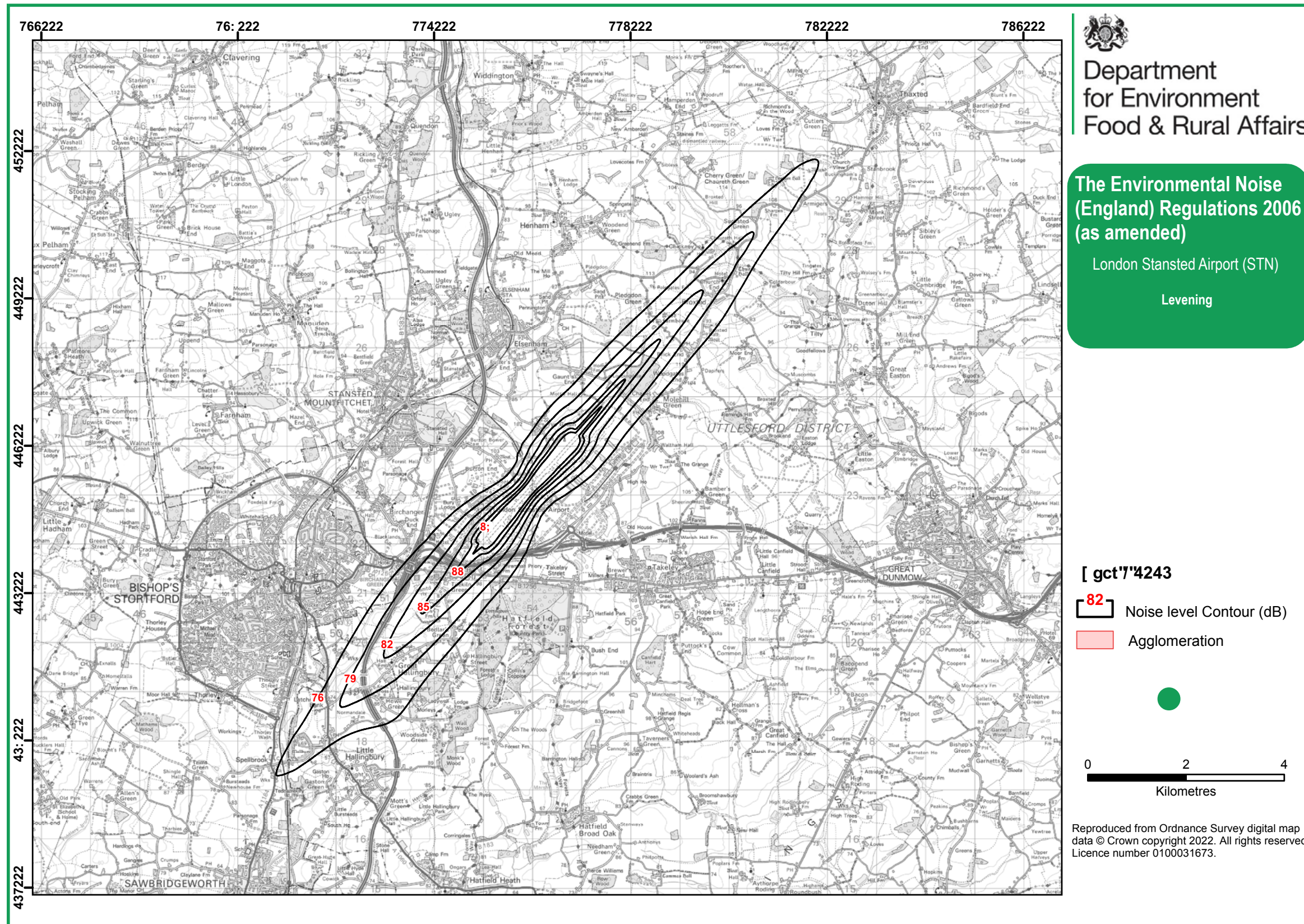


DEFRA 2021  $L_{day}$

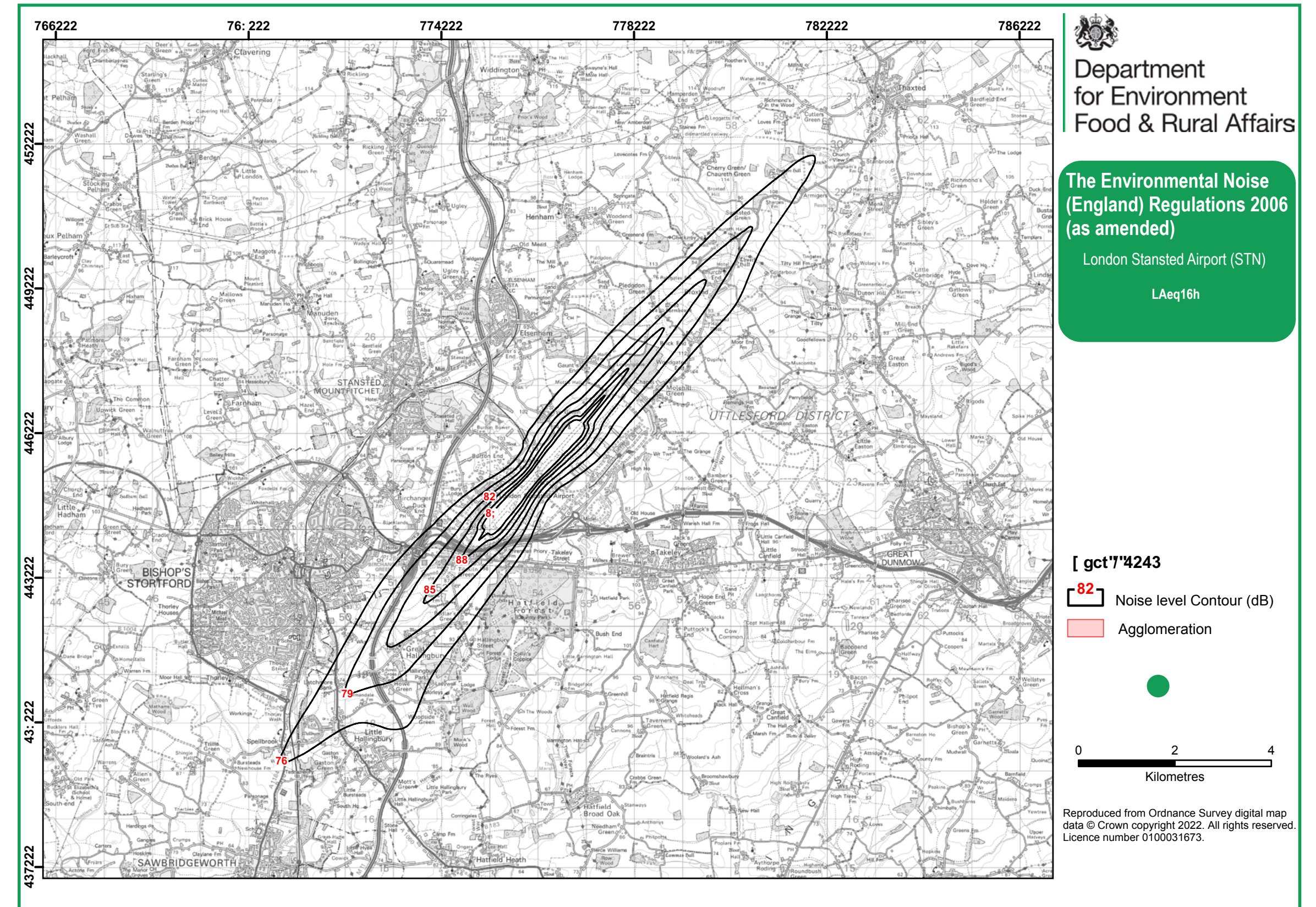




DEFRA 2021  $L_{\text{evening}}$

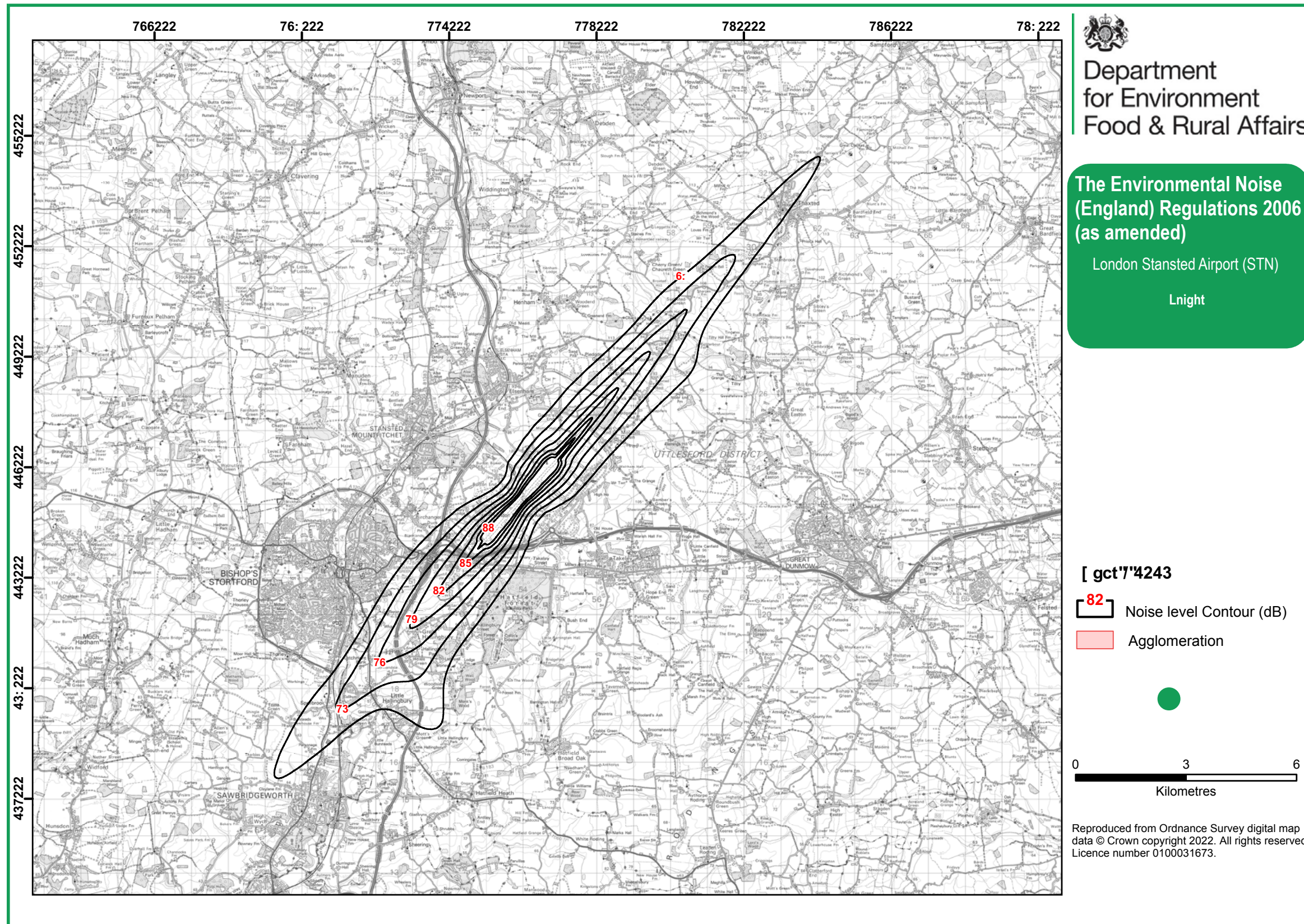


DEFRA 2021  $L_{\text{Aeq}}$



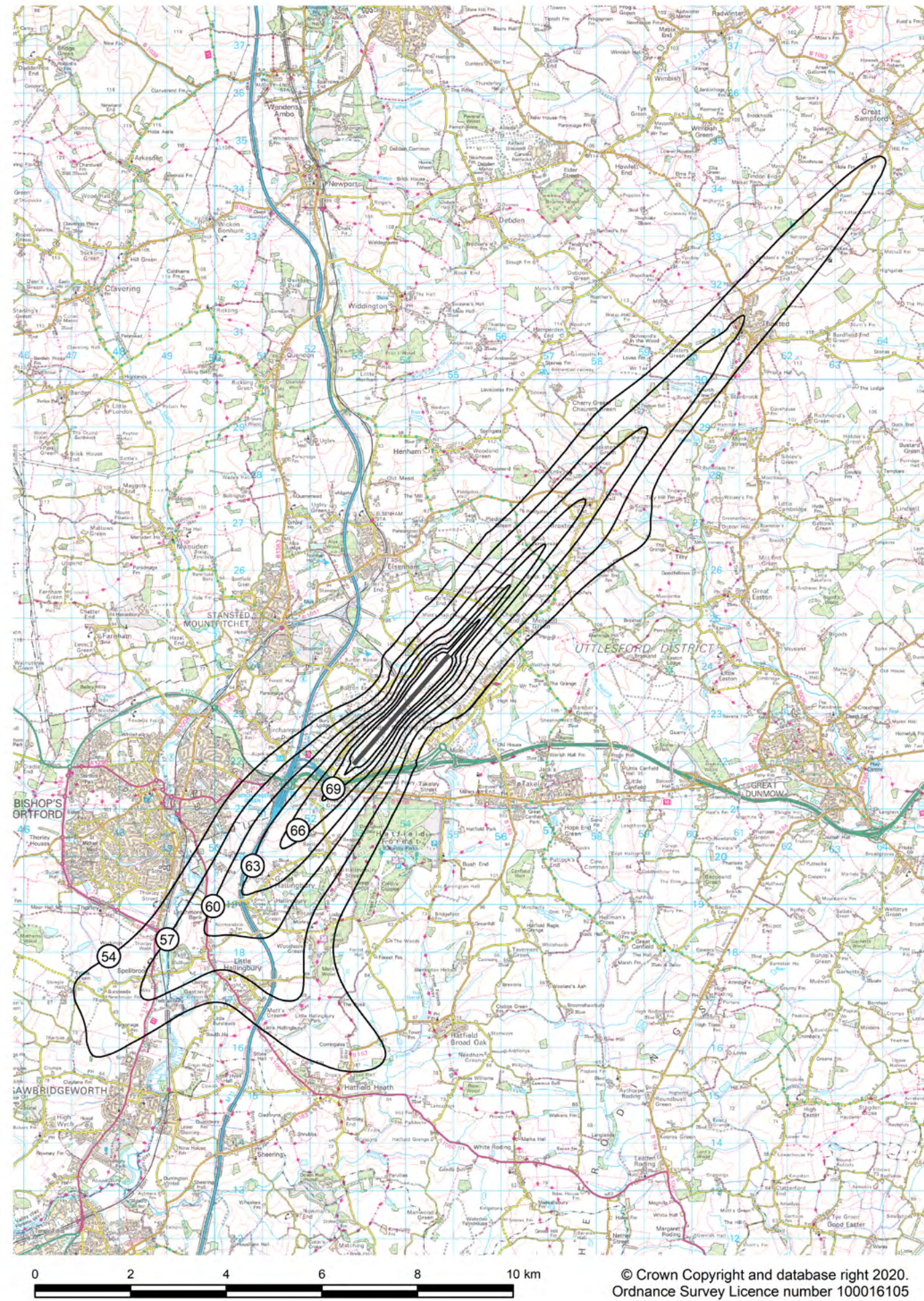


DEFRA 2021  $L_{night}$

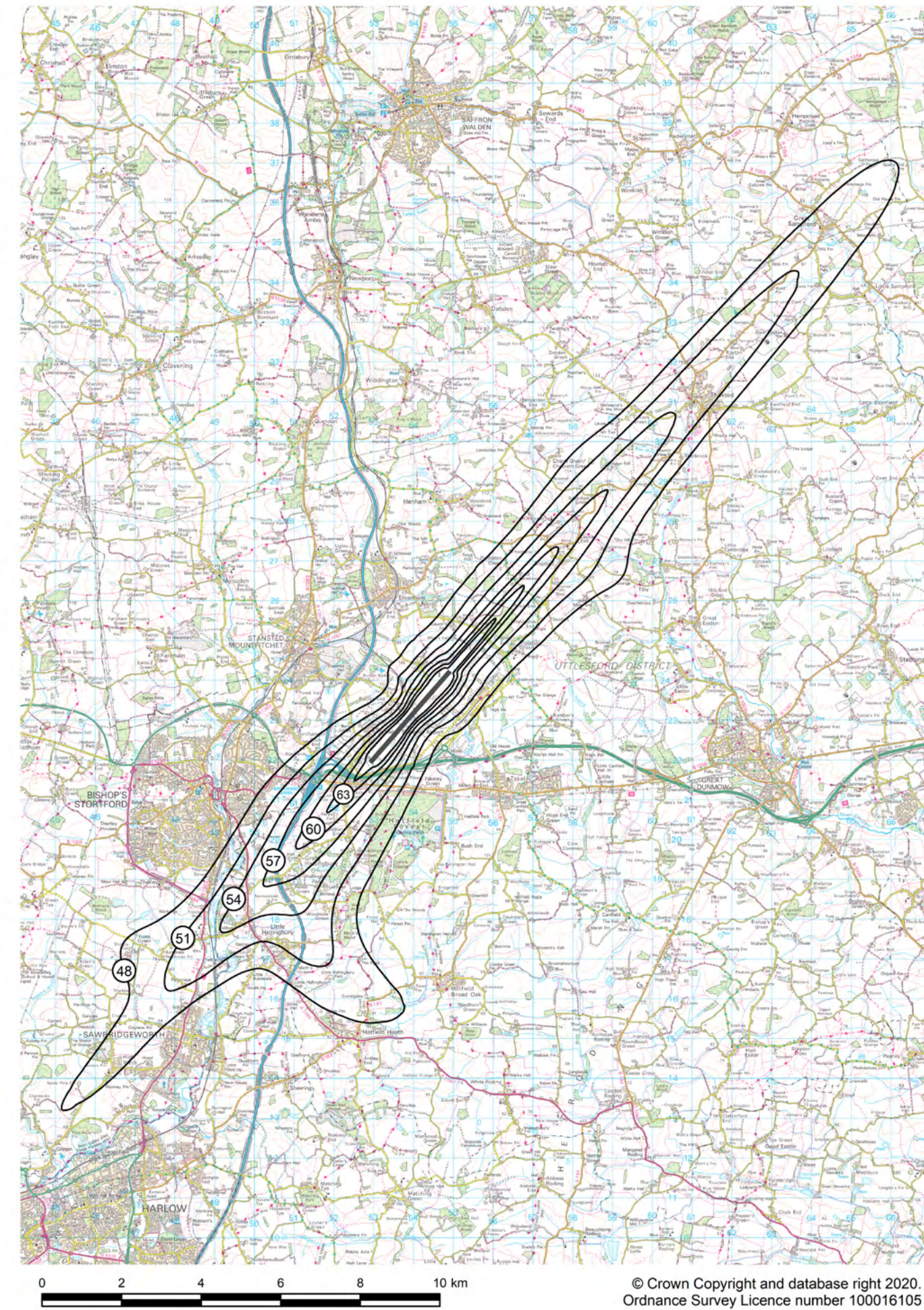




Stansted Summer 2019  $L_{Aeq}$  16hr day



Stansted Summer 2019  $L_{Aeq}$  8hr night





Estimated total number of people and dwellings above various noise levels,  $L_{den}$

| NOISE LEVEL (DB) | NUMBER OF DWELLINGS | NUMBER OF PEOPLE |
|------------------|---------------------|------------------|
| ≥ 55             | 2100                | 5200             |
| ≥ 60             | 300                 | 800              |
| ≥ 65             | <100                | <100             |
| ≥ 70             | 0                   | 0                |
| ≥ 75             | 0                   | 0                |

Estimated total number of people and dwellings above various noise levels,  $L_{day}$

| NOISE LEVEL (DB) | NUMBER OF DWELLINGS | NUMBER OF PEOPLE |
|------------------|---------------------|------------------|
| ≥ 54             | 700                 | 1700             |
| ≥ 57             | 200                 | 600              |
| ≥ 60             | 100                 | 200              |
| ≥ 63             | <100                | <100             |
| ≥ 66             | 0                   | 0                |
| ≥ 69             | 0                   | 0                |

Estimated total number of people and dwellings above various noise levels,  $L_{evening}$

| NOISE LEVEL (DB) | NUMBER OF DWELLINGS | NUMBER OF PEOPLE |
|------------------|---------------------|------------------|
| ≥ 54             | 600                 | 1600             |
| ≥ 57             | 200                 | 400              |
| ≥ 60             | 100                 | 100              |
| ≥ 63             | <100                | <100             |
| ≥ 66             | 0                   | 0                |
| ≥ 69             | 0                   | 0                |

Estimated total number of people and dwellings above various noise levels,  $L_{Aeq, 16h}$

| NOISE LEVEL (DB) | NUMBER OF DWELLINGS | NUMBER OF PEOPLE |
|------------------|---------------------|------------------|
| ≥ 54             | 600                 | 1700             |
| ≥ 57             | 200                 | 600              |
| ≥ 60             | 100                 | 100              |
| ≥ 63             | <50                 | <100             |
| ≥ 66             | 0                   | 0                |
| ≥ 69             | 0                   | 0                |

Estimated total number of people and dwellings above various noise levels,  $L_{night}$

| NOISE LEVEL (DB) | NUMBER OF DWELLINGS | NUMBER OF PEOPLE |
|------------------|---------------------|------------------|
| ≥ 48             | 1800                | 4600             |
| ≥ 51             | 600                 | 1500             |
| ≥ 54             | 200                 | 500              |
| ≥ 57             | 50                  | 100              |
| ≥ 60             | <100                | <100             |
| ≥ 63             | 0                   | 0                |
| ≥ 66             | 0                   | 0                |



## Appendix E – Noise Action Plan 2024-2028: Summary of actions

| CHAPTER                  | ACTION NUMBER | ACTION NAME                             | PROPOSED ACTION FOR NAP 2024-28  | PROPOSED ACTION DEADLINE | EXPECTED OUTCOME / BENEFIT  |
|--------------------------|---------------|---|--|--------------------------|---|
| <b>Noise controls</b>    | NAP1          | Airport planning conditions             | We will ensure that the area impacted by noise from aircraft operations remains within the noise contour areas detailed in our planning agreements. Performance against these limits will be monitored annually and reported to our Noise and Track Keeping Working Group and the local planning authority.  | Ongoing                  | To manage night noise to ensure the contour remains within planning-condition limits.   |
| <b>Noise controls</b>    | NAP2          | Noise-related fees and charges          | We will review our operating fees and charges to incentivise the quietest possible fleet. We will consider moving to a charging system based on the quota count rating of aircraft and review the charges for night operations. This review will include developing and proposing a penalty scheme which applies to unscheduled night flights.                                 | 2025                     | To incentivise the operation of the quietest aircraft fleet.  |
| <b>Arriving aircraft</b> | NAP3          | Continuous descent approach (Runway 22) | Aircraft approaching the airport on Runway 22 are expected to use continuous descent approaches (CDAs). We will work with our service partners to improve CDAs at Stansted Airport. Our target is to maintain that at least 94% of aircraft arriving on Runway 22 achieve a CDA.   | Ongoing                  | To minimise noise from arriving aircraft for those living and working within and beyond the contour area of 55dB L <sub>den</sub> . |
| <b>Arriving aircraft</b> | NAP4          | Continuous descent approach (Runway 04) | We will promote continuous descent approaches by aircraft arriving on Runway 04. We will formalise a target for continuous descent approaches to Runway 04 following the implementation of airspace modernisation in the London area.  | Ongoing                  | To minimise noise from arriving aircraft for those living and working within and beyond the contour area of 55dB L <sub>den</sub> . |
| <b>Arriving aircraft</b> | NAP5          | Low-power, low-drag approaches          | Aircraft approaching the airport are expected to keep noise disturbance to a minimum by using low-power, low-drag approaches. We will undertake a survey of our airlines to monitor and maintain the use of these procedures, and share the results with our Noise and Track Keeping Working Group and Environmental Issues Group. We anticipate this being completed in 2026. | 2026                     | To minimise noise from arriving aircraft for those living and working within and beyond the contour area of 55dB L <sub>den</sub> . |



| CHAPTER                   | ACTION NUMBER | ACTION NAME                                     | PROPOSED ACTION FOR NAP 2024-28   | PROPOSED ACTION DEADLINE                  | EXPECTED OUTCOME / BENEFIT   |
|---------------------------|---------------|---|---|---|--|
| <b>Arriving aircraft</b>  | NAP6          | Instrument landing system approach (daytime)    | Aircraft using the instrument landing system (ILS) must not descend below 2,000ft before joining the glide path. We will report ILS joining-point compliance to NATS monthly, and share the results with our Noise and Track Keeping Working Group.   | Ongoing                                   | To minimise noise from arriving aircraft for those living and working within and beyond the contour area of 55dB L <sub>den</sub> .  |
| <b>Arriving aircraft</b>  | NAP7          | Instrument landing system joining point         | We will consider opportunities to reduce the noise impact of arriving aircraft as part of our Future Airspace Programme, including reviewing the ILS joining point.   | TBC, subject to current airspace timeline | Environmental assessment to be included as part of the Future Airspace Programme.  |
| <b>On the ground</b>      | NAP8          | Reduced engine taxiing                          | We will consult with our airline partners to better understand the capabilities of new aircraft and engine types to implement reduced engine taxiing on arrival and departure.  | 2026                                      | To minimise noise from ground operations.  |
| <b>On the ground</b>      | NAP9          | Minimising the use of auxiliary power units     | We will maintain published guidance on the use of fixed electric ground power (FEGP) and monitor the non-essential use of auxiliary power units (APUs).   | 2026                                      | To minimise noise from ground operations.  |
| <b>On the ground</b>      | NAP10         | Engine testing                                  | We will maintain our controls on engine testing and carry out a review of our engine-testing procedures. We will explore options for how these can be improved to reduce noise impacts on local communities.  | 2025 and 2028                             | To minimise noise from ground operations.  |
| <b>On the ground</b>      | NAP11         | Airport – Collaborative Decision Making (A-CDM) | We will report to the Environmental Issues Group and Noise and Track Keeping Working Group our progress implementing Airport Collaborative Decision Making (A-CDM) and the benefits this offers.  | 2025                                      | To minimise noise from ground operations.  |
| <b>On the ground</b>      | NAP12         | Further opportunities to minimise ground noise  | In 2026 we will undertake a survey of our airlines and the companies which support airlines’ ground operations, aiming to identify opportunities to further minimise the noise impacts of aircraft on the ground. We will report the results to our Noise and Track Keeping Working Group and Environmental Issues Group.             | 2026                                      | To minimise noise from ground operations.  |
| <b>Departing aircraft</b> | NAP13         | Off-track departures                            | We have a target that 99% of departing aircraft will remain within our noise preferential routes, and that compliance will meet or exceed 95% for each individual route. We will report performance to our Noise and Track Keeping Working Group, including the number of off-track departures and overall track-keeping performance. | Ongoing                                   | To minimise noise from departing aircraft for those living and working within and beyond the contour area of 55dB L <sub>den</sub> . |



| CHAPTER            | ACTION NUMBER | ACTION NAME  | PROPOSED ACTION FOR NAP 2024-28  | PROPOSED ACTION DEADLINE                  | EXPECTED OUTCOME / BENEFIT   |
|--------------------|---------------|--|--|---|--|
| Departing aircraft | NAP14         | Off-track departure fines                                  | We will monitor off-track departures, working with operators to improve performance and, where applicable, raise off-track departure fines to penalise airlines which are not working to improve their track-keeping and meet our published target.  | Ongoing                                   | To minimise noise from departing aircraft for those living and working within and beyond the contour area of 55dB L <sub>den</sub> .   |
| Departing aircraft | NAP15         | Monitoring performance-based navigation (PBN) departures   | We will monitor track compliance on performance-based navigation (PBN) routes against swathes which extend 500m either side of the centre of the published departure route. We report performance quarterly to our Noise and Track Keeping Working Group, and will apply the same reporting metric to any PBN departure routes we introduce in the future. | Ongoing                                   | To minimise noise from departing aircraft for those living and working within and beyond the contour area of 55dB L <sub>den</sub> .   |
| Departing aircraft | NAP16         | Implementing performance-based navigation departure routes | We will ensure that stakeholders are kept informed of our Future Airspace Programme as it progresses through the process defined by the Civil Aviation Authority in its document CAP1616.  | TBC, subject to current airspace timeline | Environmental assessment to be Included as part of the Future Airspace Programme.  |
| Departing aircraft | NAP17         | No-fly zones   | We will report the overflight of the stated no-fly zones as detailed in the Aeronautical Information Publication (AIP), including Sawbridgeworth, Stansted Mountfitchet, St Elizabeth's Centre and Bishops Stortford, and report quarterly to our Noise and Track Keeping Working Group.   | Ongoing                                   | To minimise noise from departing aircraft for those living and working within and beyond the contour area of 55dB L <sub>den</sub> .   |
| Departing aircraft | NAP18         | '1,000 feet rule'  | We will report compliance against the 1,000 feet rule monitoring criteria in our quarterly Noise and Track Keeping Working Group reports.  | Ongoing                                   | To minimise noise from departing aircraft for those living and working within and beyond the contour area of 55dB L <sub>den</sub> .   |
| Departing aircraft | NAP19         | Departure noise limit (daytime)                            | We will maintain the daytime departure noise limit of 89dB, and will apply a surcharge to flights that exceed this limit. During this Noise Action Plan, we will review the effectiveness of this limit and any surcharges associated with it.   | Ongoing                                   | To minimise noise from departing aircraft for those living and working within and beyond the contour area of 55dB L <sub>den</sub> and to incentivise the operation of the quietest fleet. |



| CHAPTER                   | ACTION NUMBER | ACTION NAME                                      | PROPOSED ACTION FOR NAP 2024-28   | PROPOSED ACTION DEADLINE | EXPECTED OUTCOME / BENEFIT   |
|---------------------------|---------------|--|---|--------------------------|--|
| <b>Departing aircraft</b> | NAP20         | Continuous climb operations                      | We will monitor and report continuous climb operations to the Noise and Track Keeping Working Group and Environmental Issues Group.   | Ongoing                  | To minimise noise from departing aircraft for those living and working within and beyond the contour area of 55dB L <sub>den</sub> .   |
| <b>Night noise</b>        | NAP21         | Night-noise movements and quota                  | As a designated airport, we will administer the night-noise restrictions imposed by the Department for Transport and ensure that the number operations and noise quota remains within prescribed limits. We will report data quarterly to our Noise and Track Keeping Working Group.              | Ongoing                  | To manage night noise to ensure the airport operates within permitted limits.  |
| <b>Night noise</b>        | NAP22         | QC2 operations                                   | We will not permit any scheduled operations during the night period 23:00 to 07:00 using QC2-rated aircraft that do not hold historic rights to the slot.   | Ongoing                  | To manage night noise to ensure the airport operates within permitted limits, and to restrict the number of noisiest aircraft operating.   |
| <b>Night noise</b>        | NAP23         | Night-flight dispensations                       | We will publish information about flights that have dispensations from night-flight restrictions. This information will be incorporated in our Quarterly Flight Evaluation Unit Report. Modifications to this report will be developed and agreed with the Noise and Track Keeping Working Group. | 2024                     | To provide transparency that the night-noise regime is managed within the set rules.   |
| <b>Night noise</b>        | NAP24         | Departure noise limit (night-time)               | We will maintain the night-time departure noise limit of 84dB and will apply a surcharge to flights that exceed this limit. During this Noise Action Plan, we will review the effectiveness of this limit and any surcharges associated with it.  | Ongoing                  | To minimise noise from departing aircraft for those living and working within and beyond the contour area of 50dB L <sub>night</sub> and to incentivise the operation of the quietest fleet. |
| <b>Night noise</b>        | NAP25         | Continuous descent approach (Runway 04 at night) | We have set a target that 65% of arrivals on runway 04 during the core night period (23:30-06:00) will achieve a continuous descent approach. We will report performance against this target to NATS and our Noise and Track Keeping Working Group.   | Ongoing                  | To minimise noise from arriving aircraft for those living and working within and beyond the contour area of 50dB L <sub>night</sub> .  |
| <b>Night noise</b>        | NAP26         | Instrument landing system approach (night-time)  | Aircraft using the instrument landing system (ILS) must not descend below 3,000ft before joining the glidepath or join within 10 nautical miles of touchdown. We will continue to report compliance with our night-time ILS joining-point requirements to NATS on monthly basis.                  | Ongoing                  | To minimise noise from arriving aircraft for those living and working within and beyond the contour area of 50dB L <sub>night</sub> .  |



| CHAPTER                         | ACTION NUMBER | ACTION NAME                          | PROPOSED ACTION FOR NAP 2024-28  | PROPOSED ACTION DEADLINE | EXPECTED OUTCOME / BENEFIT   |
|---------------------------------|---------------|--------------------------------------|--|--------------------------|--|
| <b>Night noise</b>              | NAP27         | QC limit for the 8-hour night period | We will introduce a quota count limit on noise generated by aircraft operating during the 8-hour night period (23:00 to 07:00) during the summer scheduling season. The limit will be introduced in Summer 2026 and set at 10,100 QC points during this Noise Action Plan. | 2026                     | To manage night noise to ensure the contour remains within the planning condition limit.   |
| <b>Mitigation schemes</b>       | NAP28         | Local authority engagement           | We will engage with local planning authorities to ensure that aircraft operations are considered in the development of sensitive land use.   | Ongoing                  | To ensure proposed new developments consider the impacts of aircraft operations in any given area.   |
| <b>Mitigation schemes</b>       | NAP29         | Noise contours                       | We will commission forecast LAeq contours for aircraft noise annually, reporting these and historic noise contour areas in line with our current planning obligations.   | Ongoing                  | To increase awareness of the airport operation and tracking trends in noise performance.   |
| <b>Mitigation schemes</b>       | NAP30         | Sound Insulation Grant Scheme        | We will provide financial assistance for insulation to those most impacted by aircraft noise. Our Sound Insulation Grants Scheme will be consistent with any obligations we have agreed with Uttlesford District Council.  | Ongoing                  | To mitigate noise impacts for properties that qualify for Sound Insulation Grant Scheme funding.   |
| <b>Mitigation schemes</b>       | NAP31         | Vortex-damage repair scheme          | We will provide a vortex-damage repair scheme to repair roofs that have been damaged by vortices caused by aircraft.   | Ongoing                  | To expedite repair of property affected by aircraft operations.  |
| <b>Mitigation schemes</b>       | NAP32         | Community Fund                       | We will contribute £150,000 and additionally donate all the money we raise from noise-related penalties to the London Stansted Airport Community Fund.   | Ongoing                  | To ensure the Stansted Airport Community Fund remains effective.   |
| <b>Monitoring and reporting</b> | NAP33         | Community noise monitoring programme | We will maintain our community noise monitoring programme and seek feedback as to appropriate locations for future monitoring.   | Ongoing                  | To better understand the noise impacts in locations where community noise monitoring has been undertaken to determine if any improvement can be made.              |
| <b>Monitoring and reporting</b> | NAP34         | Additional noise monitors            | We will seek planning permission to install two additional fixed noise monitors to increase our community monitoring coverage. The locations of these noise monitors will be agreed with the Noise and Track Keeping Working Group.  | 2027                     | To ensure that airport noise monitoring is enhanced with additional noise monitoring terminals and that the airport exceeds minimum noise monitoring requirements. |



| CHAPTER                         | ACTION NUMBER | ACTION NAME                             | PROPOSED ACTION FOR NAP 2024-28  | PROPOSED ACTION DEADLINE | EXPECTED OUTCOME / BENEFIT  |
|---------------------------------|---------------|---|--|--------------------------|---|
| <b>Monitoring and reporting</b> | NAP35         | Performance monitoring and reporting    | We will monitor performance with the controls established in this Noise Action Plan, and report them quarterly on our website.   | Ongoing                  | To provide transparency of performance by aircraft operators and identify areas of improvement.                     |
| <b>Monitoring and reporting</b> | NAP36         | Quarterly Flight Evaluation Unit Report | We will produce a detailed quarterly Flight Evaluation Unit report, and publish it on our website. The report will include information on key performance indicators, such as continuous climb departures, track-keeping, noise violations, continuous descent approaches, performance-based navigation and night operations, including dispensations. We will discuss the contents of the report with the Noise and Track Keeping Working Group, updating the metrics it contains as agreed with the Group. | Ongoing                  | To provide transparency of operational performance.   |
| <b>Monitoring and reporting</b> | NAP37         | Quiet-flight performance report         | We will publish a new airline noise performance report from 2025, based on a range of key noise criteria including, but not limited to, continuous descent approaches, continuous climb departures, adherence to noise limits, departure track-keeping and certified aircraft noise levels. The effectiveness of this report will be reviewed on a regular basis with the Noise and Track Keeping Working Group and Environmental Issues Group.  | 2025                     | To drive improvements in environmental performance of aircraft operators and identify areas of improvement.         |
| <b>Monitoring and reporting</b> | NAP38         | Independent audit                       | There will be an annual audit of the noise management system by independent auditors. The audit will consider noise events, track-keeping, continuous descent approaches, continuous climb departures and complaint handling.  | Ongoing                  | To drive continuous improvement and to provide transparency and quality assurance for our noise management process. |
| <b>Effective communication</b>  | NAP39         | Stakeholder engagement                  | We will continue to engage with our stakeholders to discuss noise related performance, listen to feedback, and identify and implement improvement opportunities.   | Ongoing                  | To continually improve the Stansted Airport operation and noise management performance.                             |
| <b>Effective communication</b>  | NAP40         | Engagement with stakeholder groups      | We will work with our Noise and Track Keeping Working Group and Environmental Issues Group to identify and develop solutions to community concerns, and seek feedback on our noise management performance.   | Ongoing                  | To continually improve the Stansted Airport operation and noise management performance.                             |



| CHAPTER                        | ACTION NUMBER | ACTION NAME  | PROPOSED ACTION FOR NAP 2024-28  | PROPOSED ACTION DEADLINE | EXPECTED OUTCOME / BENEFIT  |
|--------------------------------|---------------|--|--|--------------------------|---|
| <b>Effective communication</b> | NAP41         | Aircraft Noise Monitoring Advisory Committee (ANMAC) | In partnership with our Noise and Track Keeping Working Group and the Environmental Issues Group of the Stansted Airport Consultative Committee, we will present issues and facilitate debate with the Aircraft Noise Monitoring Advisory Committee, and will implement initiatives agreed with the Committee.   | Ongoing                  | To implement the latest noise abatement measures.   |
| <b>Effective communication</b> | NAP42         | Reporting on our progress                            | We will produce an annual report, presented to the Noise and Track Keeping Working Group and London Stansted Airport Consultative Committee, summarising progress made by the airport against this Noise Action Plan.  | Ongoing                  | To ensure transparency that this Noise Action Plan is being delivered.  |
| <b>Effective communication</b> | NAP43         | Community survey                                     | We will carry out a regular community survey to collect views on how effectively the airport is managing aircraft noise issues as well as other issues. Results from the survey will be shared with the Noise and Track Keeping Working Group and London Stansted Airport Consultative Committee, and used to inform any future noise actions.   | Ongoing                  | To ensure feedback from community engagement is shared to highlight any concerns that can, where possible, be addressed.                            |
| <b>Effective communication</b> | NAP44         | Publishing noise-related information                 | We will continue to develop the ways in which we share noise-related information with our local communities, including continuing to:<br>Develop and update our suite of community information fact sheets, including updated flight-path maps.<br>Publish additional noise indicators including number-above contours.<br>Share noise management information in our regular community newsletter.<br>Provide public access to flight-tracking information using our WebTrak tool. | Ongoing                  | To help local residents — and people considering moving to any specific location — understand the impacts of aircraft operations in any given area. |
| <b>Effective communication</b> | NAP45         | Review and develop our communications materials      | We will review our communication materials and website each year to ensure ease of understanding and to develop the information available to local communities.  | Ongoing                  | To help local residents — and people considering moving to any specific location — understand the impacts of aircraft operations in any given area. |
| <b>Effective communication</b> | NAP46         | Online noise portal for local communities            | We will develop and introduce an online portal providing local communities with location-specific information about noise management and performance.  | 2025                     | To help local residents — and people considering moving to any specific location — understand the impacts of aircraft operations in any given area. |



| CHAPTER                        | ACTION NUMBER | ACTION NAME   | PROPOSED ACTION FOR NAP 2024-28  | PROPOSED ACTION DEADLINE | EXPECTED OUTCOME / BENEFIT  |
|--------------------------------|---------------|---|--|--------------------------|---|
| <b>Effective communication</b> | NAP47         | Social media  | We will review how we use social media to provide information to local communities about operations at Stansted Airport.   | 2025                     | To help local residents – and people considering moving to any specific location – understand the impacts of aircraft operations in any given area. |
| <b>Effective communication</b> | NAP48         | Receiving complaints and enquiries                      | We will offer a range of options for people to contact us in relation to complaints or enquiries regarding aircraft noise. These will include email, website and telephone contact options.  | Ongoing                  | To ensure we maintain an effective communication and complaint-handling system.   |
| <b>Effective communication</b> | NAP49         | Recording and investigating complaints                  | We will record and investigate all complaints relating to aircraft operations, and publish statistics in line with agreed complaints-handling policy.  | Ongoing                  | To ensure we maintain an effective communication and complaint-handling system.   |
| <b>Effective communication</b> | NAP50         | Complaints and enquiries, engaging with local residents | We will invite local residents and complainants to the airport to demonstrate our noise and track-keeping system and to explain our noise mitigation schemes, where we perceive there to be a benefit.   | Ongoing                  | To help local residents understand the impacts of aircraft operations and to provide transparency over the Stansted Airport operation.              |
| <b>Effective communication</b> | NAP51         | Complaints handling policy                              | We will develop and update our policy that explains the way in which we investigate and respond to noise-related enquiries from local communities.   | 2024                     | To ensure we maintain an effective communication and complaint-handling system.   |
| <b>Effective communication</b> | NAP52         | Complaints handling process                             | We will regularly review our process for handling noise complaints and enquiries to improve the transparency and effectiveness of the system. This will include consultation with the Noise and Track Keeping Working Group and Stansted Airport Consultative Committee. Our first review will be complete by mid-2024 with agreed actions implemented by the end of 2025. | 2024                     | To ensure we maintain an effective communication and complaint-handling system.   |
| <b>Effective communication</b> | NAP53         | Annual noise complaints report                          | We will publish an annual noise complaints report, seeking feedback from the Noise and Track Keeping Working Group to help develop the report and its contents.  | Ongoing                  | To provide transparency over our processes for noise complaint handling and trend analysis for operational improvements.                            |



## Appendix F – Performance against our Noise Action Plan 2019-2023

| CONTROL  | ACTION   | STATUS  | CONTROL   | ACTION   | STATUS   |
|--|--|---|---|--|--|
| <b>NAP 1:</b><br>Low power/low drag                      | Aircraft approaching the airport are expected to keep noise disturbance to a minimum by using a low power/low drag procedure.  | Action complete.  | <b>NAP 7:</b><br>APU use                            | We will continue to monitor the use of FEGP and the non-essential use of auxiliary power units and will maintain and update our DN detailing the use of APUs / FEGP as appropriate. We will undertake survey in 2021 and share the results with our NTKWG and EIG. | Action complete.   |
| <b>NAP 2:</b><br>Continuous Descent Approach (Runway 22) | All aircraft approaching the airport on runway 22 are expected to use continuous descent procedures. In line with commitments made in the Sustainable Aviation Noise Road Map, we will work with our service partners to improve CDA at Stansted Airport.                        | Action complete.  | <b>NAP 8:</b><br>Engine testing                     | We will maintain and update our suite of DNs controlling the ground noise associated with Fixed Wing and Rotary Wing Aircraft as appropriate.  | Action complete.   |
| <b>NAP 3:</b><br>Continuous Descent Approach (Runway 04) | We will promote and seek the introduction of CDA to runway 04 as soon as practicably possible as changes to airspace constraints permit. We will continue to promote CDA to runway 04 which can only be delivered through airspace changes as part of any future LAMP programme. | Further action required. This action is being delivered as part of our Future Airspace Programme. | <b>NAP 9:</b><br>'Off-track' departures             | We have a target of 95% of track keeping compliance for each individual SID.   | Action complete.   |
| <b>NAP 4:</b><br>ILS approach - daytime                  | Aircraft using the instrument landing system must not descend below 2,000 feet before joining the glide path.  | Action complete.  | <b>NAP 10:</b><br>'Off-track' surcharge             | We have a system of financial penalties for flights where airlines flagrantly or persistently fail to keep on the NPRs. The surcharges are as follows:<br>During the day - £750 per occasion and during the night - £1000 per occasion.                            | Action complete.   |
| <b>NAP 5:</b><br>Steeper approaches                      | We will explore options for GBAS technology and the ability to facilitate a steeper approach angle above 30.   | Further action required. This action is being delivered as part of our Future Airspace Programme. | <b>NAP 11:</b><br>Departure Noise Limit             | We will seek approval from the UK Government to lower the daytime departure noise limit in 2019.   | Action complete.   |
| <b>NAP 6:</b><br>Reduced-engine taxiing                  | We will consult with our airline partners to better understand the capabilities of new aircraft / engine types for reduced engine taxi.  | Action complete.  | <b>NAP 12:</b><br>Departure Noise Limit - surcharge | We will review our departure noise limit surcharge following any reduction in the departure noise limit  | Further action required. Noise limits changed in 2022, a review of surcharges will be conducted later in 2023. |
|  |  |   | <b>NAP 13:</b><br>AIP Noise Abatement Compliance    | We will continue to report the overflight of the AIP stated 'no-fly' zones as detailed in the AIP, including Sawbridgeworth, Stansted Mountfitchet, St Elizabeth's and Bishops Stortford and report quarterly to our NTKWG.  | Action complete.   |



| CONTROL  | ACTION   | STATUS  |
|--|--|---|
| <b>NAP 14:</b><br>1,000ft Rule                     | We will continue to report the compliance against the 1000ft monitoring criteria in our quarterly NTKWG reports.<br><br>We will review through ANMAC TWG if there is a more appropriate measure to adopt as a Noise Abatement Procedure. | Action complete.  |
| <b>NAP 15:</b><br>Continuous Climb Operations      | We seek permission from Government to add monitoring criteria to the UK AIP and report against this criteria by departure route in 2019.   | Action complete.  |
| <b>NAP 16:</b><br>Implementing PBN                 | In consultation with key stakeholders and our local communities we will seek to implement PBN on our remaining departure routes.   | Further action required. This action is being delivered as part of our Future Airspace Programme. |
| <b>NAP 17:</b><br>Reporting PBN                    | We will continue to report against our agreed +/- 500m swathe and report quarterly to our NTKWG.   | Action complete.  |
| <b>NAP 18:</b><br>Night noise movements and quota  | We will continue to administer the DfT night restrictions regime and ensure that the number of operations and noise quota remains within the limits prescribed. We will report data quarterly to our NTKWG.                              | Action complete.  |
| <b>NAP 19:</b><br>QC2 operations                   | We will not permit any scheduled QC2 operations that do not hold historic rights to the slot during the core night period.   | Action complete.  |
| <b>NAP 20:</b><br>Departure noise limit            | We will seek approval from the UK Government to lower the night-time departure noise limit in 2019.  | Action complete.  |
| <b>NAP 21:</b><br>Departure noise limit - simplify | We will seek approval from the UK Government to replace the current departure noise system with a limit for daytime and night-time departures in 2019.   | Action complete.  |

| CONTROL   | ACTION   | STATUS  |
|---|--|---|
| <b>NAP 22:</b><br>Night noise surcharge                   | Once we have implemented our revised noise limits and associated time periods, we will review our night noise limit surcharge.   | Further action required. Noise limits changed in 2022, a review of surcharges will be conducted later in 2023.  |
| <b>NAP 23:</b><br>ILS approach – night-time               | Aircraft using the instrument landing system must not descend below 3,000 feet before joining the glide path or join within 10nm of touchdown.   | Further action required. Performance in 2022 was 96% compliance with the 3,000 feet joining-point criteria and 92% compliance with the 10 nautical mile criteria. |
| <b>NAP 24:</b><br>Continuous descent approach (Runway 04) | We recently agreed a 65% target for runway 04 core night (23:30 – 06:00) CDA's with NATS through our NTKWG.  | Further action required. Performance in 2022 was 64%.   |
| <b>NAP 25:</b><br>Local Authority Engagement              | We will engage with the local planning authorities to ensure awareness of aircraft operations is considered in the development of sensitive land use, via the quarterly Local Authority liaison meeting.                                   | Action complete.  |
| <b>NAP 26:</b><br>Forecast noise contours                 | We will commission forecast L <sub>Aeq</sub> contours for air noise annually in line with our current planning regulations.  | Action complete.  |
| <b>NAP 27:</b> Annual noise contours                      | We will review the annual LAeq contours as produced by the DfT with Uttlesford District Council and agree upon actions arising.  | Action complete.  |
| <b>NAP 28:</b><br>Sound insulation grant scheme           | We will continue to provide financial assistance for insulation to those most impacted by aircraft noise, our Residential Noise Insulation Scheme will be consistent with any obligations we have agreed with Uttlesford District Council. | Action complete.  |
| <b>NAP 29:</b><br>Vortex damage repair scheme             | We will continue to provide a vortex damage repair scheme to repair roofs that have been damaged by vortexes caused by aircraft.   | Action complete.  |



| CONTROL                                       | ACTION   | STATUS           |
|---|--|------------------|
| <b>NAP 30:</b><br>Community trust fund        | We will donate all the money we raise as a result of our environmental penalties to the Stansted Airport Community Trust Fund.   | Action complete. |
| <b>NAP 31:</b><br>Helicopter VFR routes       | We will monitor the effectiveness of our new helicopter routeing and report periodically to the NTKWG.   | Action complete. |
| <b>NAP 32:</b><br>Differential landing charge | We incentivise Chapter 4 aircraft when introducing new business to Stansted Airport by offering a 40% discount in airport landing charges compared to that of a Chapter 3 High aircraft and review this figure periodically. | Action complete. |
| <b>NAP 33:</b><br>Airline league table        | We will continue to produce an airline league table based on noise abatement criteria and publish this on an annual basis. We will consult with our NTKWG and refine the report and metrics as necessary.                    | Action complete. |
| <b>NAP 34:</b><br>Independent audit           | There will be an annual audit of noise management system by independent auditors.  | Action complete. |
| <b>NAP 35:</b><br>ANMAC                       | In partnership with our NTKWG and EIG we will continue to present issues and facilitate debate with ANMAC and will implement any initiatives as agreed through that forum.   | Action complete. |
| <b>NAP 36:</b><br>Data reporting              | We will continue to produce a detailed quarterly FEU report and publish it on our website.   | Action complete. |
| <b>NAP 37:</b><br>Noise contours              | We will continue to publish annual 'Number Above' contours within our suite of annual noise contours.  | Action complete. |
| <b>NAP 38:</b><br>Arrival and departure maps  | We will continue to publish detailed arrival and departure maps on a biennial basis.   | Action complete. |

| CONTROL  | ACTION  | STATUS           |
|--|---|------------------|
| <b>NAP 39:</b><br>Community noise monitoring             | We will maintain our community noise monitoring program and continue to seek feedback as to appropriate locations for future monitoring.  | Action complete. |
| <b>NAP 40:</b><br>Recording and investigating complaints | We will continue to record and investigate all complaints relating to aircraft operations and publish statistics in line with agreed complaints handling policy.  | Action complete. |
| <b>NAP 41:</b> Responding to complaints                  | Regularly report on our complaint response times, aiming to respond to at least 90% of complaints within eight working days.  | Action complete. |
| <b>NAP 42:</b><br>Complaints Process                     | We will continue to offer a range of contact options for complaints and enquiries regarding aircraft noise including email, website and telephone contact options.  | Action complete. |
| <b>NAP 43:</b><br>Complaints and enquiries               | We will continue to invite local residents and complainants to the airport to demonstrate our noise and track keeping system and explain our noise mitigation schemes, where we perceive there to be a benefit. | Action complete. |
| <b>NAP 44:</b><br>Complaints and enquiries               | We will continue to publish an annual noise complaints report and seek feedback through the NTKWG to develop the report and its contents.   | Action complete. |
| <b>NAP 45:</b><br>Flight tracking information            | We will continue to provide public access to flight track tracking information via WebTrak and will reduce the current 24-hour delay to bring this closer to real time.   | Action complete. |



| CONTROL   | ACTION  | STATUS  |
|---|---|---|
| <b>NAP 46:</b><br>Flight tracking development                     | We will explore opportunities to introduce additional online tools to benefit local residents understanding of our operation.   | Further action required. Our Noise Action Plan 2024-28 proposes the introduction of an online portal providing local communities with location-specific information about noise management and performance. |
| <b>NAP 47:</b><br>Engagement with stakeholder groups              | We will continue to routinely work with our NTKWG and EIG to develop and facilitate solutions to community concerns where possible.                                   | Action complete.  |
| <b>NAP 48:</b><br>Feedback from stakeholder groups                | We will continue to seek feedback on our noise management performance from the NTKWG and EIG.   | Action complete.  |
| <b>NAP 49:</b><br>Review and develop our communications materials | We will annually review our communication materials and website to ensure ease of understanding and continue to develop the information available to local residents. | Action complete.  |
| <b>NAP 50:</b><br>Reporting on our progress                       | We will continue to publish our progress against this Noise Action Plan on an annual basis through our CSR report.  | Action complete.  |



## Appendix G – Consultation questionnaire

### London Stansted Airport draft Noise Action Plan Feedback Form

We appreciate you taking the time to provide us with feedback on our Draft Noise Action Plan for 2024-28. This form will take approximately 6 minutes to complete. For more information on how we will use and store your data please visit [www.stanstedairport.com/privacy-notice/](http://www.stanstedairport.com/privacy-notice/)

1. What is your name?
2. Are you responding as an individual or on behalf of an organisation?
3. What organisation are you responding on behalf of (if applicable)?
4. What is your postcode?
5. What is your e-mail address? We will only use this to contact you about the Noise Action Plan consultation

#### Chapter 8 - Noise controls

6. Are the actions we have identified in Chapter 8 'Noise controls' adequate?
7. If you have answered no, what actions should we be considering in Chapter 8 on Noise controls?

#### Chapter 9 - Arriving aircraft

8. Are the actions we have identified in Chapter 9 'Arriving aircraft' adequate?
9. If you have answered no, what actions should we be considering in Chapter 9 on Arriving aircraft?

#### Chapter 10 - On the ground

10. Are the actions we have identified in Chapter 10 'On the ground' adequate?
11. If you have answered no, what actions should we be considering in Chapter 10 'On the ground'?

#### Chapter 11 - Departing aircraft

12. Are the actions we have identified in Chapter 11 'Departing aircraft' adequate?
13. If you have answered no, what actions should we be considering in Chapter 11 'Departing aircraft'?

#### Chapter 12 - Night noise

14. Are the actions we have identified in Chapter 12 'Night noise' adequate?
15. If you have answered no, what actions should we be considering in Chapter 12 on 'Night noise'?

#### Chapter 13 - Mitigation schemes

16. Are the actions we have identified in Chapter 13 'Mitigation schemes' adequate?
17. If you have answered no, what actions should we be considering in Chapter 13 on Mitigation schemes'?

#### Chapter 14 - Monitoring and recording

18. Are the actions we have identified in Chapter 14 'Monitoring and recording' adequate?
19. If you have answered no, what actions should we be considering in Chapter 14 on 'Monitoring and recording'?

#### Chapter 15 - Effective communication

20. Are the actions we have identified in Chapter 15 'Effective communication' adequate?
21. If you have answered no, what actions should we be considering in Chapter 15 on 'Effective communication'?

#### Further information

22. When we finalize our Noise Action Plan we will be including a list of individuals and organisations who have responded to our consultation. Do you wish to be identified in the schedule of responses?
23. Are you interested in subscribing to the London Stansted Airport Community Flyer - our quarterly e-Newsletter?
24. Are you happy for us to subscribe the email address you have previously given to our mailing list. You can opt out at any time.

#### Diversity monitoring

- The following questions are optional, by responding to these questions you will help us understand more about the accessibility of our consultation and how well it has engaged our stakeholders. Your responses to these questions will be held confidentially and will not be individually disclosed.
25. What is your age?
  26. What gender do you identify with?
  27. What is your ethnicity?
  28. Do you consider yourself to have a disability?



## Appendix H – Expenditure on noise management

Estimated annual investment in noise management, financial year ending 31 March 2023

| COST AREA  | DETAILS   | COST                 |
|--|---|----------------------|
| <b>Staff costs</b>                                 | CSR team, including Flight Evaluation Unit, noise complaint and community engagement – employee costs and training.                               | £200,000             |
| <b>Computer and equipment costs</b>                | Equipment installation, renewal, calibration, repair, software licences, product support and development.   | £200,000             |
| <b>Publications, communications and engagement</b> | Community engagement programme  | £22,000              |
| <b>Stansted Airport Community Fund</b>             | Annual contribution from the airport  | £50,000 <sup>9</sup> |
| <b>Noise insulation and mitigation schemes</b>     | Sound Insulation Grants Scheme and vortex scheme  | £1,000 <sup>9</sup>  |
| <b>Research and benchmarking, forecasting</b>      | Consultancy and research, including future noise contours, studies and support of industry collaboration initiatives such as Sustainable Aviation | £42,000              |
| <b>Total estimated annual investment</b>           |   | £515,000             |

<sup>9</sup> In 2023, we launched the new London Stansted Airport Community Fund into which we will contribute £150,000 each year for the next ten years. Sound Insulation Grant Scheme (SIGS) installations were paused in 2022/23 as residents chose to wait for our new, enhanced SIGS which was being finalised and has now launched. Information about the London Stansted Airport Community Fund and SIGS is provided in Chapter 13, *Mitigation schemes*.