

Annual Noise Report 2024

Contents

Air Traffic Statistics 3

 2024 Summary 3

 Aircraft Movements 4

 Runway Movements Direction 6

Operational Noise Abatement Measures 7

 Continuous Descent and Continuous Climb 7

 Aircraft Engine Testing 8

 Ground Power Units and Auxiliary Power Units 9

Correspondence and Complaints..... 10

Flight Tracking Portal 12

Community Liaison..... 13

 Southampton Airport Consultative Committee..... 13

 Noise Forum..... 13

 Noise Insulation Scheme..... 13

 Noise contour area limit 13

Noise Action Plan 14

 Appendix A: 2024 Average Summer Day Noise Contours 18

Air Traffic Statistics

2024 Summary

Through 2024 Southampton International Airport (SOU) facilitated 862,290 passengers. This includes passengers both arriving and departing from commercial, chartered, private and general aviation flights. There were 21,345 Air Transport Movements across the same flight types. Passenger numbers increased by 12.6% compared to 2023, and aircraft movements decreased by 3.3%. Despite movement numbers falling, the passenger number increase can be explained by airlines using more A319/A320/B737 sized aircraft which have a greater passenger capacity.

Total ATMs					
SOU	Year	Movements	Arrivals	Deps	Pax
	2024	21,345	10,674	10,671	862,290
	2023	22,087	11,043	11,044	765,513
	2022	20,614	10,307	10,307	640,707

Southampton currently supports 10 scheduled airlines and flies to many destinations across the UK and internationally. More information can be found at [Our Destinations | Southampton Airport](#). Figure 1 shows the percentage split of movements between each operator in 2024. Loganair has the highest number of movements with 20% of all movements. EasyJet has seen significant growth during 2024 with a 460% increase in operations. Channel Island connectivity remains to be a strong contribution to movements with Aurigny and Blue Islands contributing 26% of total movements.

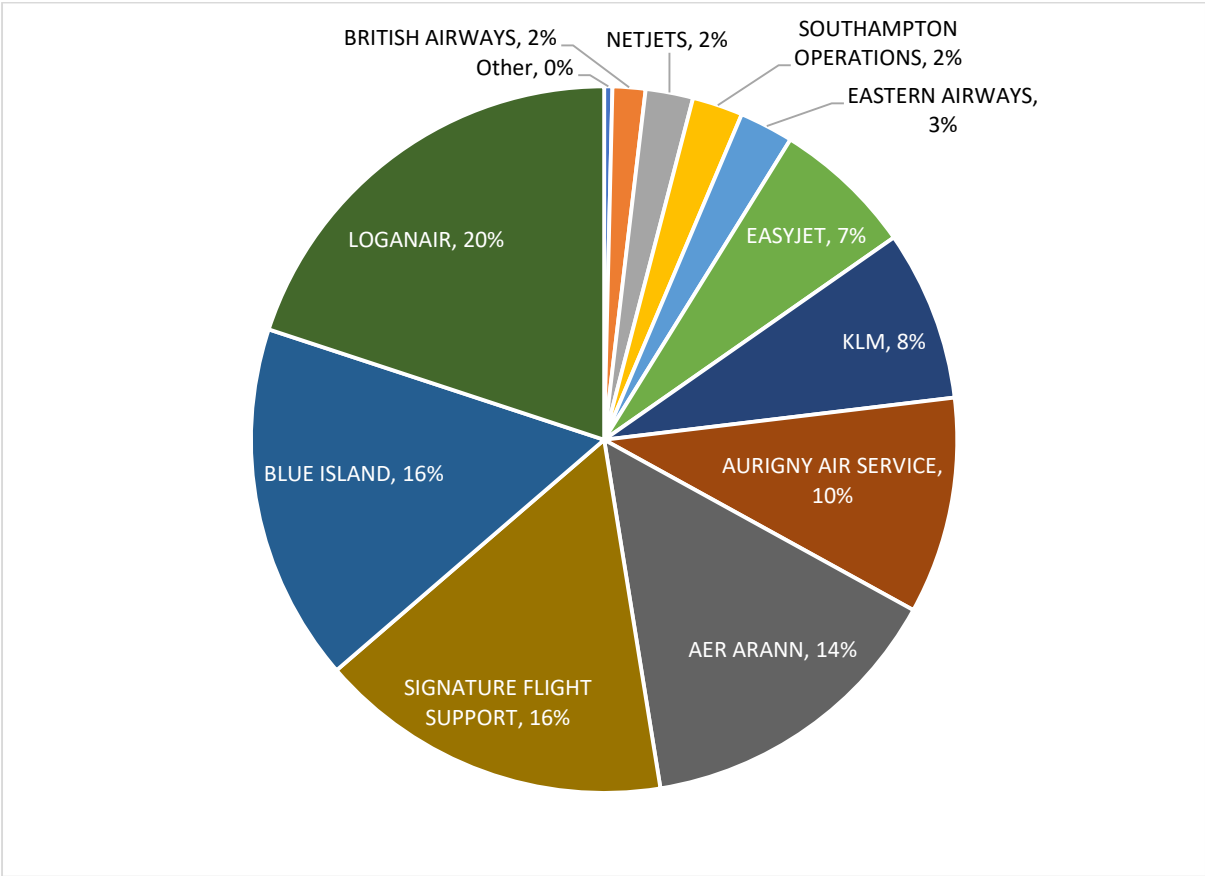


Figure 1 – Percentage split of movements by operators ('Other' includes any operator with <100 movements).

Aircraft Movements

SOU supports passenger flights, cargo, general aviation, air ambulance, military, and training flights. Figure 2 shows the number of movements per aircraft type in 2024. The most common type of aircraft in use at Southampton is the ATR72-500/600 series which accounts for over 35% of all traffic. The next most common type is the Embraer 145 regional jet which accounts for just under 20% of all movements.

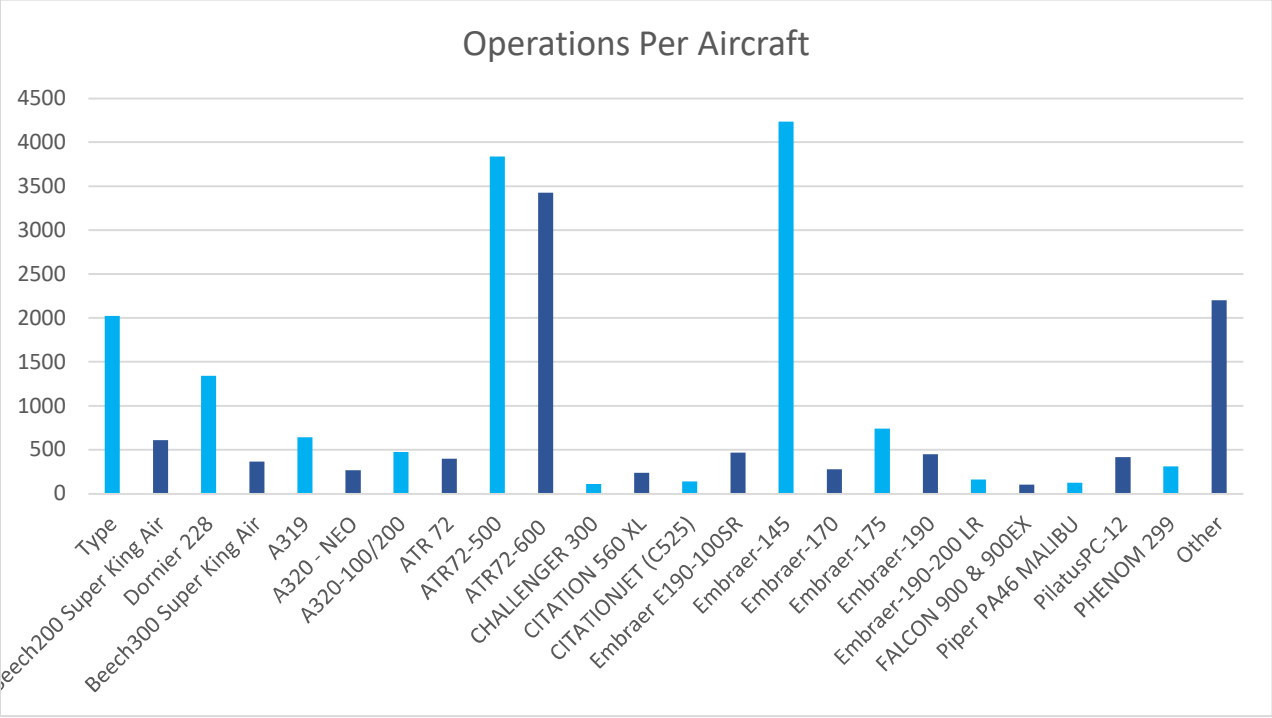


Figure 2 – Number of movements completed by each fixed wing aircraft type ('Other' – all aircraft with < 100 movements).

Of note is the increase in use of the Airbus Family of aircraft including the A319/A320 series. We have also seen a marked increase in use of the A320NEO aircraft. Only 2x A320NEO movements were recorded in 2023 but in 2024, we saw 268. This aircraft has a noise footprint which is 50% less than the A320CEO series and we are working with our airline partners to encourage a shift towards this aircraft type over the older generation of A320s.



Figure 3 shows the monthly movements across 2022, 2023 and 2024. Monthly movements peak across the summer months from June to September due to an increase in holiday traffic and charters.

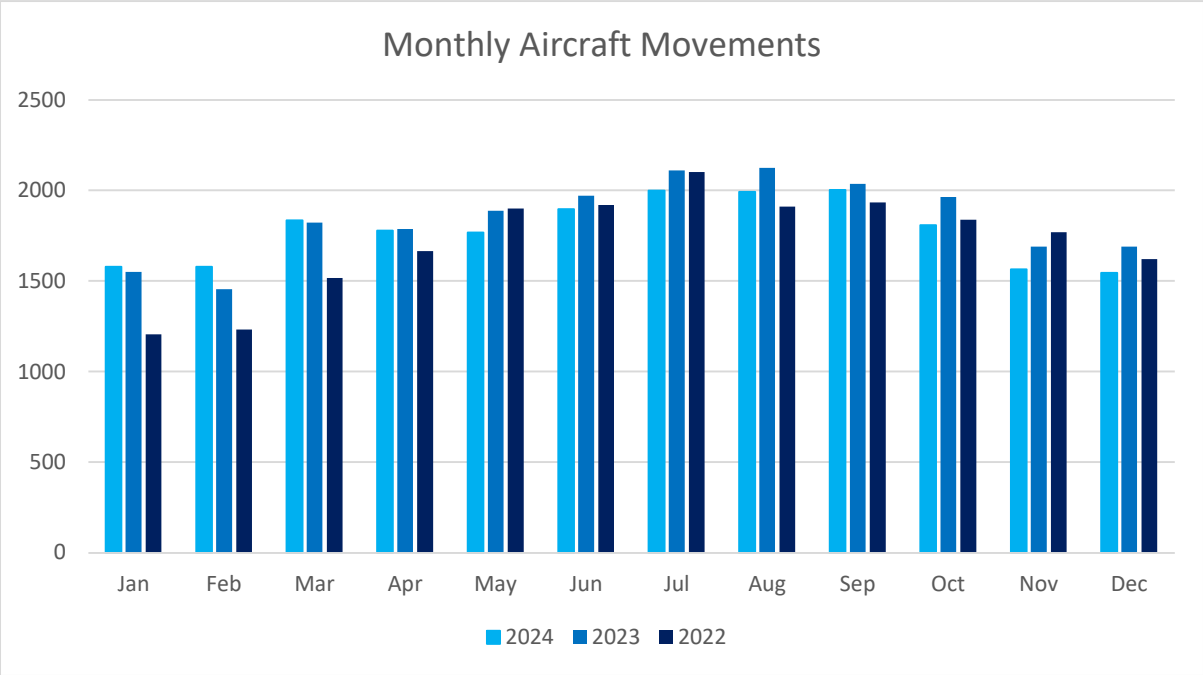


Figure 3 – Monthly aircraft movements from 2022, 2023 and 2024.

Figure 4 explores the average daily movements across 2022, 2023 and 2024. Broken down by month, there is a similar pattern to that of the total monthly movements, with a peak during the summer months and fewer average daily movement at the start and end of each year. The number of average daily movements has remained broadly consistent over the 3 year period.

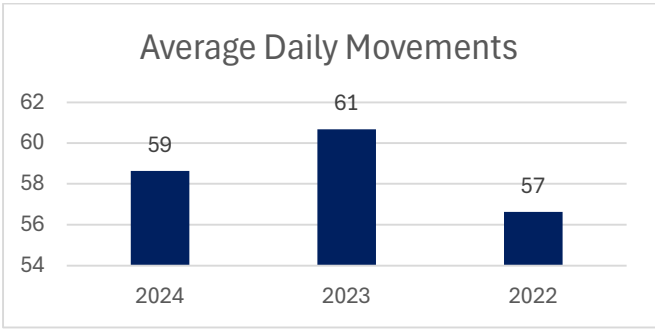


Figure 4 – Average daily aircraft movements per month in 2022 and 2023.

Southampton Airport operates 7 days a week, the airfield is open 0630-2300 from Mon-Sat and 0730-2300 on Sunday. Although the airport is open these times operations often significantly reduce around 2100. The busiest time in 2024 remains consistent with previous years and shows a peak between 0800 and 0900 as airlines begin first wave of operations. Peaks of operations, although there were less movements in 2024, still show a continued trend.

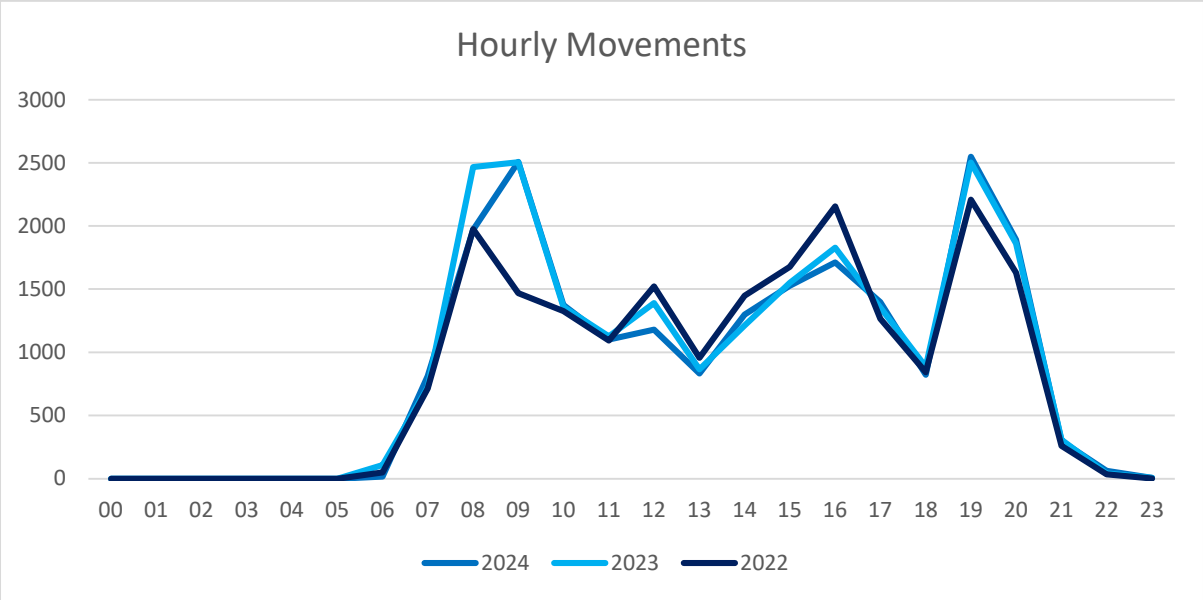


Figure 5 – Total flight movements for 2022, 2023 and 2024 per hour.

Runway Movements Direction

SOU has one runway running North-North-East to South-South-West (02/20). Runway 20 involves aircraft departing over Bitterne Park and arriving over Winchester. Runway 02 sees aircraft arriving over Bitterne Park and departing towards Winchester. The split of operations across the past 3 years is displayed in figure 6. Runway 20 is used more often than 02 and this is due to the south west prevailing wind we experience in the UK. When the wind is above 5knots (5.75mph) aircraft must take off and land into wind for performance and safety reasons.

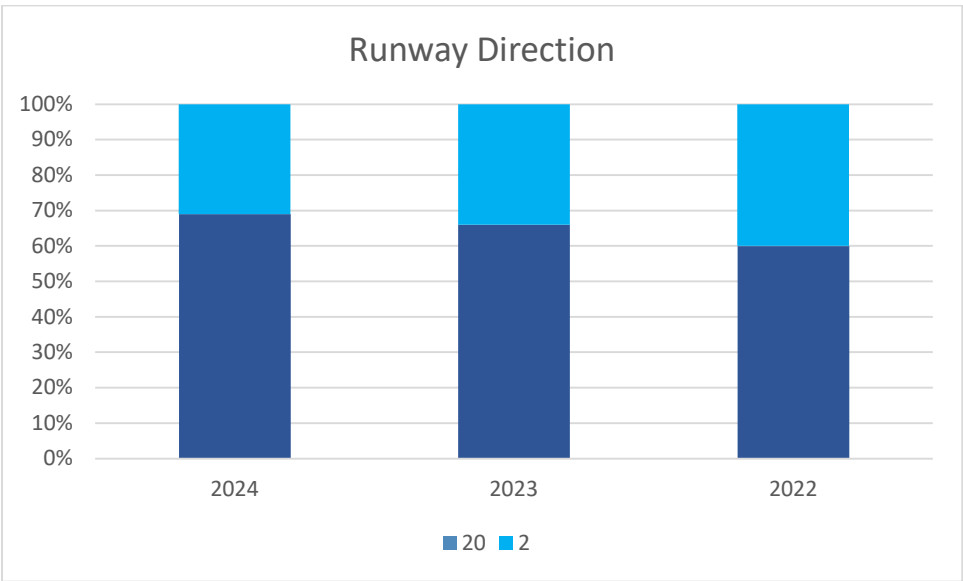


Figure 6 – Runway movements direction for 2023

Operational Noise Abatement Measures

Continuous Descent and Continuous Climb

Southampton Airport is continually looking to minimise potential noise disturbance to local communities. As such aircraft will operate under Continuous Descent Operations (CDO) for arriving aircraft and Continuous Climb Operations (CCO) for departing aircraft. CCDs and CCOs are operating techniques used in fixed wing aircraft that deliver environmental and economic benefits – including noise reduction, reduced fuel burn and reduced fuel costs. Air Traffic Control (ATC) facilitate CDO/CCO, and aim to maximise these as much as possible. CDO/CCO operations are affected by various factors (e.g. wind, air pressure, weight of aircraft), so may not always be possible. Targets are set for these movements to continually improve these operations.

An ideal track profile is shown below. The ideal profile for both ascent and descent involves minimising level flight and ensuring a constant descent/ascent. For arrivals, level offs require an increase in thrust and this creates more noise. For departures, a continual ascent means that the aircraft gets higher, quicker.

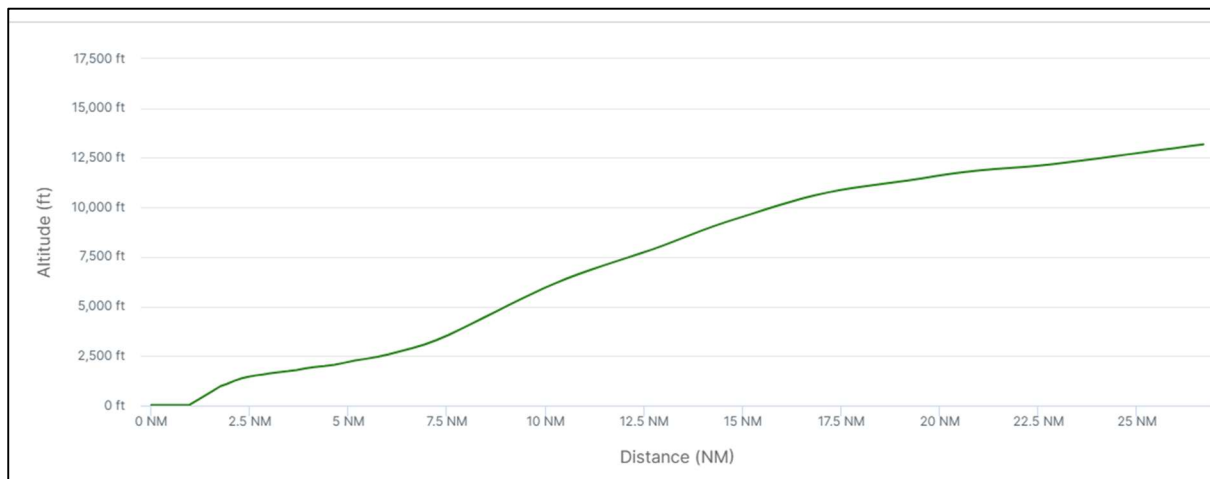


Figure 7 shows the CDO/CCO performance against targets in 2024. With CCO performing at 79.2% overall for the year, against a target of 84%, and CDO performing at 56.7% against a target of 58%

Although the target has been missed, both metrics have improved with a 2.2% increase over the year for CCO and 3.7% for CDO. Various factors and conditions that may affect CDOs are being looked at in order to try and improve the CDO value (some areas include runway in use, time of day, airline operator, aircraft type, and weather).

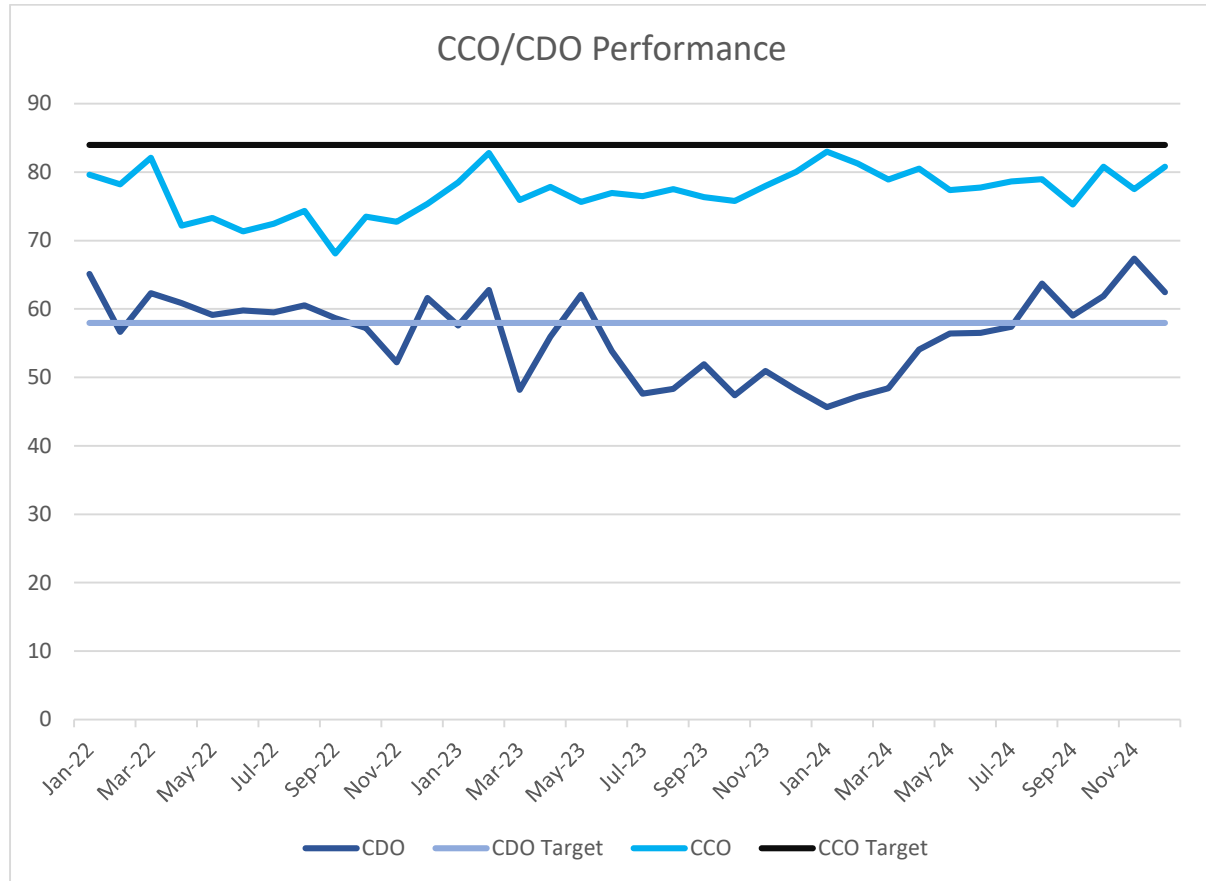


Figure 7 – Continuous climb and descent operations per month in 2023, with targets indicated.

Aircraft Engine Testing

Aircraft will routinely test their engines to ensure they are operating correctly. To minimise the impact of engine ground running there are strict procedures at Southampton Airport that must be followed. Engine ground runs (EGR) are restricted to timings dependent on the classification of the EGR. EGRs are the ground running of Mounted Engines by way of testing of such engines or of any part of an Aircraft but don't include the ground running of Mounted Engines in the operations of starting up, warming up, pre-flight checks and idling of Aircraft engines or the taxiing, taking off or landing of Aircraft.

All engine ground runs (EGR) must be requested through the Airside Operations team, where each request will be assessed. EGRs are not permitted on Sundays nor Bank Holidays. EGRs are restricted

to the hours of 0800-2100 and we endeavour to limit these to between 0900-1800 (unless exceptional circumstances exist, at the sole discretion of the Airport Duty Manager).

Figure 8 shows the distribution of the times of EGRs across 2024. There were a total of 30 EGRs across the year, with most taking place between 0900-1800. One test took place just after 1800.

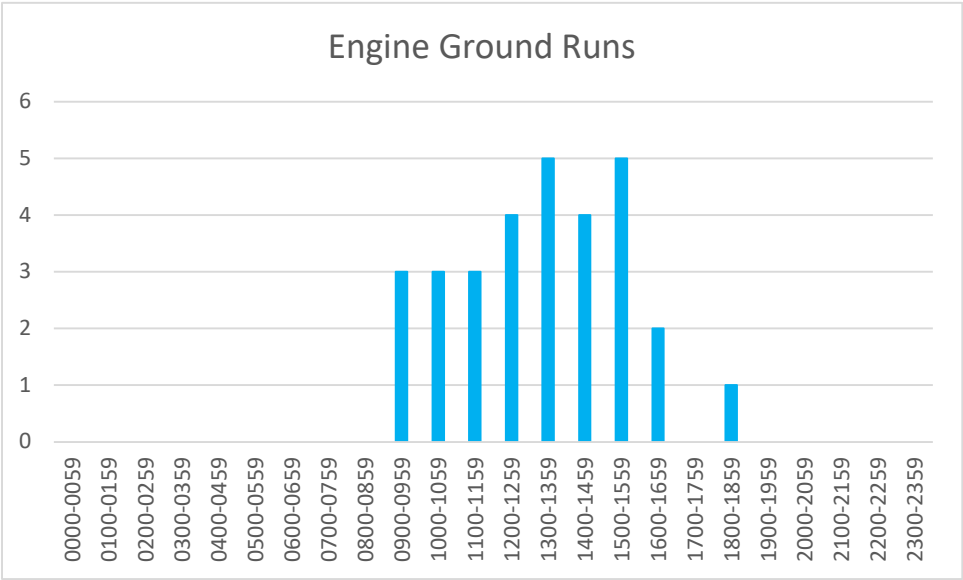


Figure 8 – Engine Ground Run timings across 2024.

Ground Power Units and Auxiliary Power Units

Ground and auxiliary power units constitute a source of noise emission, and therefore the use of these is also considered across the airport. Within the rules of the operating instructions at Southampton Airport it states that the running of aircraft auxiliary power units (APU) must be kept to a minimum, consistent with safety and only on stands that are not fitted with Fixed Electrical Ground Power.



Correspondence and Complaints

At SOU we strive to be a respectful neighbour and addition to the local community and economy. As part of this commitment, we have a dedicated noise action and complaint email inbox which is monitored daily. We endeavour that all complaints will be responded to within five working days. All complaints are tracked, logged and trends reviewed.

Given the complex nature of operations, and the variety of complaint and enquiry types received by the SOU Noise complaint e-mail, SOU works very closely with ATC when investigating. The noise complaint mailbox deal with all noise and disturbance related complaints, from fixed wing operations, rather than delegating to specific operators per complaint. Not only does this ensure we have a full understanding of all concerns, but it ensures continuity and quality of response.

A total of 348 complaints were received in 2024.

An infringement is a breach of any noise abatement procedures that Southampton airport have set in the Noise Track Keeping (NTK) system, allowing for any reasonable deviation tolerances. NTK is a system that monitors and records radar data to monitor aircraft operations and report statistics focused around noise.

Figure 9 shows the trend of complaints over the years 2022-2024. Complaints tend to peak between May and September where weather is usually better and local communities become more aware of aircraft activity through having windows and doors open for longer.

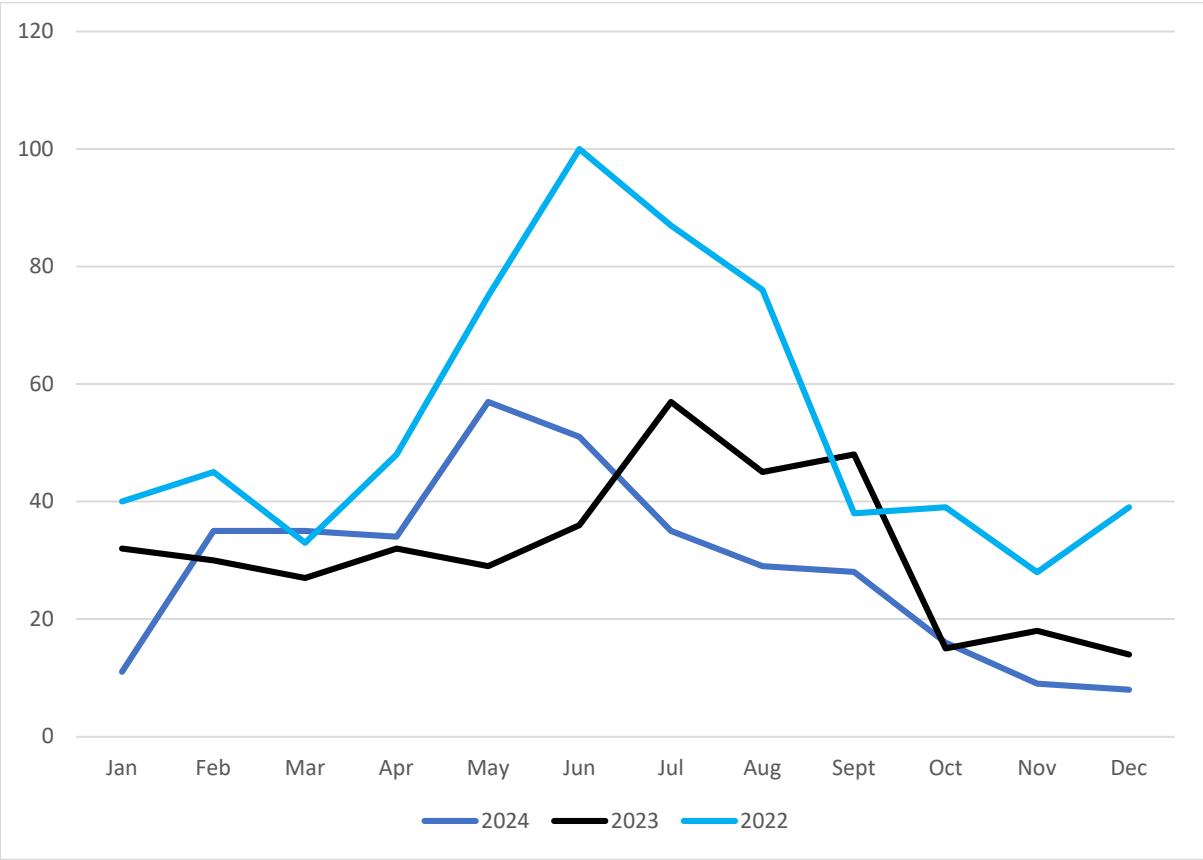


Figure 9 – Number of complaints received each month 2022-2024

The area that noise complaints come from is very diverse. Figure 10 shows the main locations noise complaints came from. The area with the most complaints was Bitterne Park, accounting for 79% of all complaints, although the vast majority originate from a single address. Portswood (5%) and Eastleigh (3%) were the next largest areas. Bitterne Park and Portswood are both adjacent to the South side of the airfield so will be most susceptible to Southerly Departures. Those locations in ‘Other’ include complaints from different areas within the city and further afield, including Twyford, Fair Oak, Shawford, Bishopstoke, Freemantle, Totton, Otterbourne and Shirley.

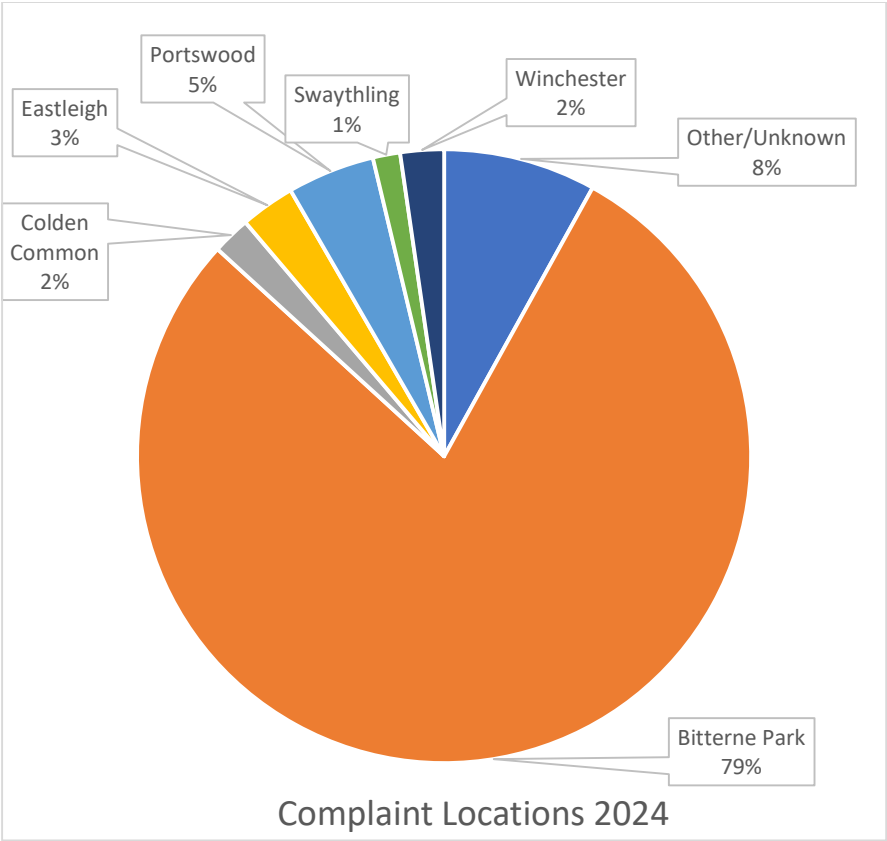
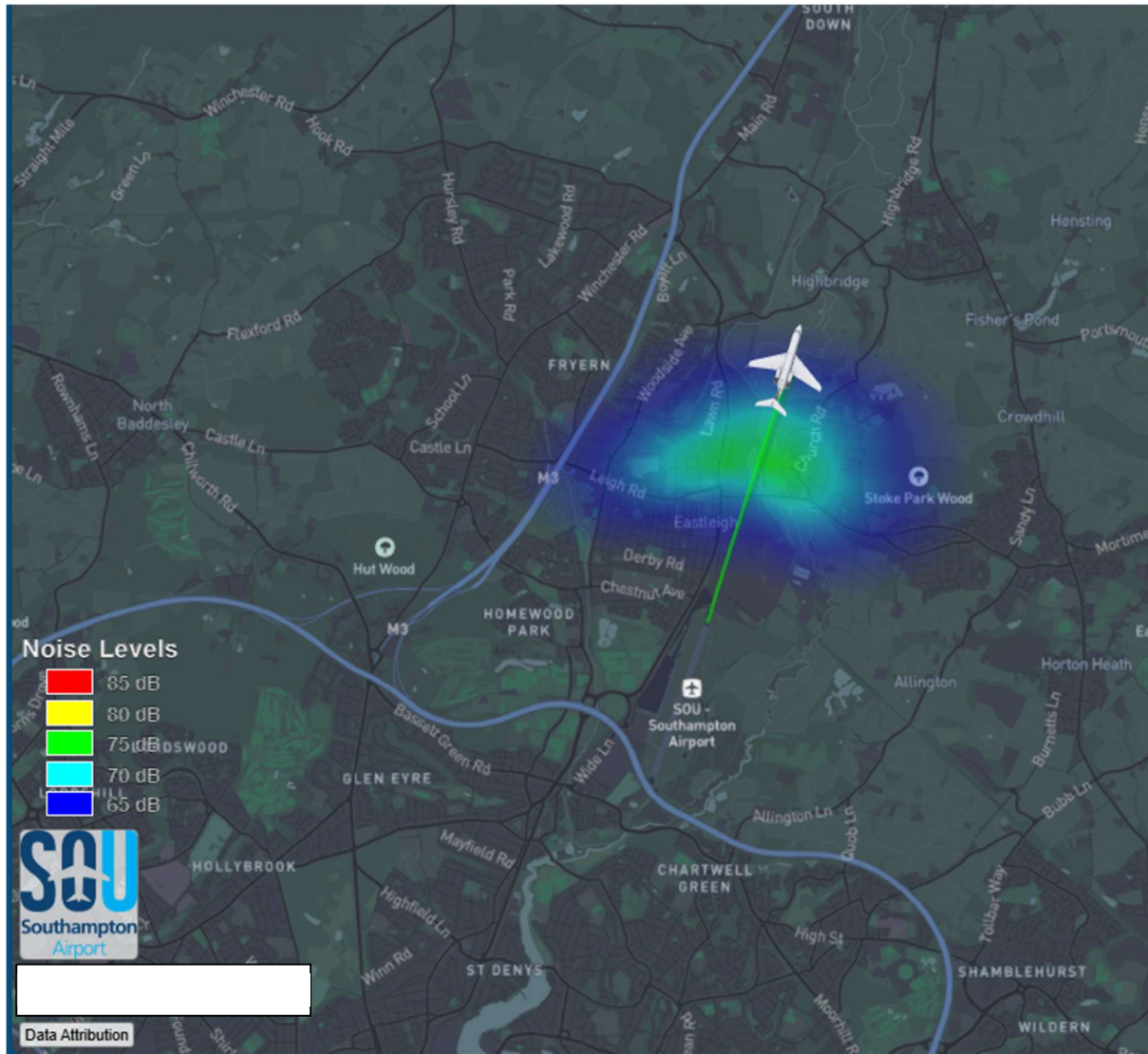


Figure 10 – Percent complaints received from each area (‘Other’ includes locations with less than 4 complaints or undeclared locations).

Flight Tracking Portal

Southampton Airport has introduced an enhanced flight tracking system which will help local communities monitor aircraft movements.



The Flight Tracking Portal (Volans) will replace the former system and delivers a near live 3D visualisation of every flight and aircraft type operating to and from the airport. Residents who may wish to know more about the aircraft operating in the skies above their homes are now able to use the portal to track each flight and its modelled noise footprint throughout its journey.

The portal also includes enhanced features such as a play-back function to allow users to track a flight from a specific date and time. There are also three separate 3D viewing positions, including one which presents a representation from within the cockpit of the aircraft being tracked.

To view the Southampton Airport Flight Tracking Portal click [here](#).

Community Liaison

Southampton Airport Consultative Committee

The Consultative Committee meets three times a year, to review the airport's latest developments, monitor the airport's adherence to regulations which minimise noise, as well as evaluate the levels of community feedback received by the airport. The committee has over 20 members, consisting of a range of stakeholders including local councillors and officers, resident associations, disability groups, industry bodies and airport users. More details can be found on the Eastleigh Borough Council website [here](#).

The Consultative Committee is independently chaired, with the following purpose:

- To act as a means of consultation in relation to Southampton Airport in accordance with the provisions of Section 35 of the Civil Aviation Act 1982.
- It allows the concerns of interested parties to be raised and taken into account by the airport operator, with a genuine desire on all sides to resolve any issues that may emerge.

Noise Forum

A Noise Forum has been established whose objective is to:

- Improve communication between communities, other relevant stakeholders and the Airport management;
- Promote greater understanding of noise and its impact on residential communities; and
- Consider practical ways to minimise or avoid these impacts.

The first full meeting of this forum took place on the 10th April 2024.

Noise Insulation Scheme

As part of Section 106 Agreement, Southampton Airport made a commitment to introduce a Noise Insulation Scheme.

The Scheme has been established to provide an opportunity for eligible properties to apply for noise insulation to their properties. The NIS reflects our aim to be respectful of the local community and our impact on people who live and learn in close proximity to Southampton Airport. The management of the NIS is overseen by the ACC.

Eligibility for Southampton Airport's noise insulation scheme is determined by the 60dB_LAeq,16h summer noise contour. This is set out in the airport's Section 106 agreement with Eastleigh Borough Council. The noise contours were calculated to reflect the summer 2024 period and informed how many houses were eligible for acoustic insulation in the scheme that is due to be open in Q1 2025. You can view the 2024 60dB contour map [here](#). Due to the reduced traffic and our continued regrowth post-covid, the contour size resulted in no eligible properties within the 60dB summer 2023 contour. A total of 6 houses will be eligible for insulation when the scheme launches. You can find more information [here](#).

Noise contour area limit

The Section 106 planning agreement linked to the runway extension has an annual noise contour area limit of 16.1km² for normally scheduled aircraft traffic. The airport is monitoring this annually, the 2023 noise contour area was 4.6km² (geographical area surrounding the airport affected by a noise level of 51dB LAeq on an average 16 hour summer day). The projected noise contour areas for the next three years are also within the limit. [Table 1](#) below shows the area per year.

L_{Aeq},16h(dB) > 51	Forecast Area (km²)
2024	5.9km ² (5.0km ² actual area)
2025	7.1km ²
2026	7.5km ²

Table 1 Annual noise contour area limit per year

Noise Action Plan

The 2023-2028 Noise Action Plan was adopted by the Department for Environment, Food and Rural Affairs (DEFRA) in Q4 2024. Despite the delay to formal adoption, the plan is fully embedded into our noise management programme and regular updates are provided at the Noise Forum and Airport Consultative Committee. A copy of the full plan can be found [here](#).

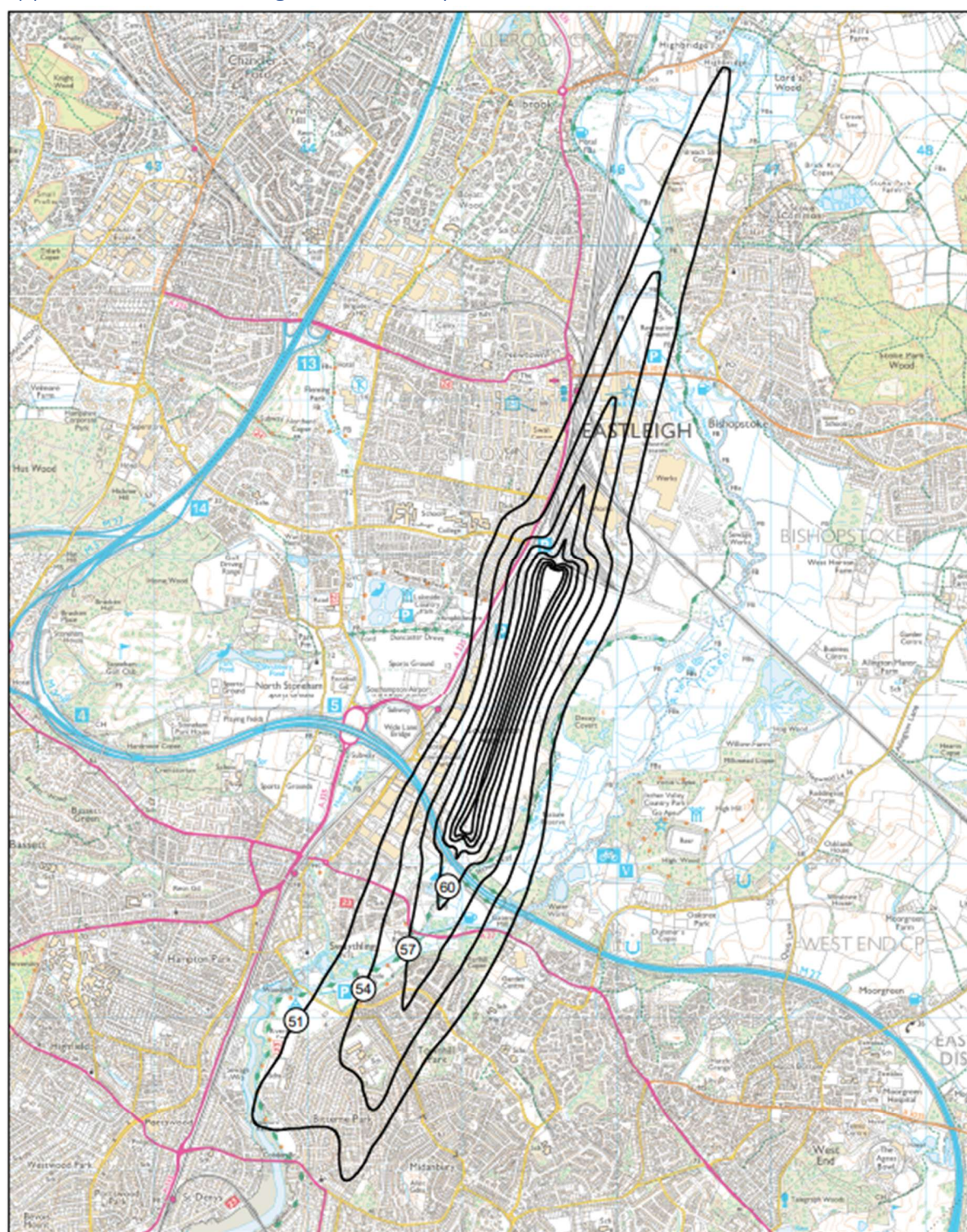
Southampton International Airport 2023-2028 Noise Action Plan	
NAP Commitment	Progress
Working with our local communities	
We will prepare and submit a Health Strategy to the council to improve public outdoor spaces, promote their use for outdoor recreation and exercise and monitor health impacts with a focus on noise related health issues.	Our Health Strategy was completed in July 2023 and submitted to Eastleigh Borough Council in line with Schedule 12 of the Section 106.
We will establish, fund and maintain an Airport Community Health and Wellbeing Board whose role will be to use the funds to support initiatives to reduce health inequalities and improve the health and wellbeing of those residents surrounding the airport in line with priorities identified in the Health Strategy.	As per the Section 106 Schedule 12 the Health & Wellbeing Board was formed with an initial payment of £100,000 being paid into Eastleigh Borough Council to manage on behalf of the fund. More details can be found here
We will establish and maintain a Noise Forum whose objective is to: <ul style="list-style-type: none"> · Improve communication between communities, other relevant stakeholders and the Airport management. · Promote greater understanding of noise and its impact on residential communities; and · Consider practical ways to minimise or avoid these impacts. 	The first full meeting of this forum was held on the 10th of April 2024 and will next take place in July 2025
We will publish an Annual Noise Monitoring Report which will contain: <ul style="list-style-type: none"> · Noise contours for the previous year based on actual aircraft movements and predicted noise contours for the next three years. · Information on the number of air transport movements for the previous year and projected air transport movements for the next 15 years. · Information to demonstrate that the noise contour cap will not be exceeded. · Progress against actions in the Noise Action Plan; and · Information on the implementation of the Noise Insulation Scheme (such as number of properties offered insulation, number of acceptances and number and details of completed installations). 	Completed and issued on the website . Information on the number of air transport movements for the next 15 years has been reported to Eastleigh Borough Council. Progress against Noise Action Plan is shown in this table and reported at relevant forums. Noise Insulation Scheme information is provided in this report.
We will make a noise report available on our website annually, which will include our annual noise contours and detail of our annual performance on noise.	Completed and issued on the website . The current years contour map is available here
We will publish a new dedicated noise webpage with information on key noise initiatives and strategies.	In progress.
We will present key noise issues to the Southampton Airport Consultative Committee and Noise Forum as appropriate	In progress. Regular updates have been provided to the ACC

NAP Commitment	Progress
We will log and respond to all noise complaints and enquiries and commit to respond within 5 working days. We will use our noise and track keeping systems to investigate and seek further explanation from ATC and airlines where required.	In progress and ongoing. A more user friendly online form has been developed for complaints and enquiries and is available at www.southamptonairport.com/noise . Our team strives to meet the 5 day deadline but where it may take longer, a holding response will be issued.
We will deploy aircraft track visualisation modelling software and make it available for communities to view modelled aircraft noise information	Software deployed and publicly available on the Southampton noise website . Direct link to the tool is here .
We will establish a policy to deploy noise monitoring in locations to supplement the track keeping systems and contour modelling. The locations, metrics and objectives of the noise monitoring will be developed in consultation with the Community Noise Forum.	To be discussed with the Noise Forum in 2025
Reduction of Noise at Source	
We will undertake reviews of differential aircraft charging on an annual basis to encourage the industry adoption of quieter aircraft.	This action will be progressed following a benchmarking review in 2025
We will undertake a review and benchmarking of differential landing charges and other methods of incentivisation to determine if it would be viable to introduce additional measures at Southampton Airport.	This was delayed in 2024 and will take place in 2025.
As part of AGS group we will work with our partners in Sustainable Aviation to achieve the visionary noise goals of FlightPath 2050[1] which seek to achieve a 65% reduction in perceived noise, or 15dB, from aircraft by 2050 compared to 2000	In progress. We are a member and continue to input to Sustainable Aviation working groups and a member of staff is now vice chair of the Quieter Group. AGS is now also a member of the ACI Europe Noise Task Force where we will continue to monitor best practices in noise management.
We will support the development of Sustainable Aviation's updated Noise Roadmap and will encourage the development of electric and hybrid electric aircraft and consider the noise implications of future aircraft technology.	In progress. We are a member and continue to input to Sustainable Aviation working groups. The new noise roadmap can be found here
We will continue to impose strict limits on the times, location and numbers of occasion that aircraft engine ground running can take place and to not permit ground running during night-time hours or bank holidays. We will also review and modernise ground running monitoring process.	Engine ground running controlled by monitoring against S106 agreement. Performance for 2024 is available in section titled Operational Noise Abatement Measures
We will replace all diesel powered ground power units (GPUs) with Fixed Electrical Ground Power (FEGP) at all stands to allow aircraft to take electricity directly from the local grid, helping to reduce noise by limiting the amount of time that aircraft will need to run their engines at stands.	FEGP available on stands 2-5.

NAP Commitment	Progress
We will develop a policy in the use of single engine taxiing and aircraft towing with a view to minimise noise emissions from aircraft on the airfield.	Single engine taxi to be discussed at internal Flight Operations Safety Committee. Due to short taxi times, there may be restrictions on the effectiveness of this practice, particularly with the increase in A320CEO/NEO aircraft which require longer engine stabilisation after start.
Noise Abatement Operational Procedures	
We will use aircraft track keeping systems to proactively monitor aircraft routing and fine airlines for off track occurrences. Funds raised through these fines will be distributed to the Community Health and Wellbeing Fund.	We are monitoring aircraft track keeping systems and we have a draft fining mechanism available which we intent to consult on with our airlines this summer and implement this winter.
We will continue to implement best practice on aircraft noise management according to guidance that was published by the Independent Commission on Civil Aviation Noise whilst the commission was still active. We will review and implement any future best practice guidance issued by the Civil Aviation Authority where appropriate.	ICCAN has since been disbanded, we review any relevant guidance available.
We will continue to apply and monitor the Noise Abatement Procedures until we have successfully implemented our Airspace Change Proposal.	We are monitoring Noise Abatement Procedures. Our conditions of use allow us to levy a penalty on airlines that breach the Noise Preferred Routings
We will continue with our Airspace Change Proposal and seek to develop a design that minimises, and where possible reduces, the total adverse effects on health and quality of life from aircraft noise, in line with our agreed airspace design principles.	We continue to undertake our Airspace Change Programme in conjunction with the UK airspace modernisation strategy and working with the other airports in the south deployment cluster Airspace Change Programme Southampton Airport
We will promote adherence to the Arrivals Code of Practice (ACOP) and in particular the achievement of Continuous Descent Operations (CDO) where possible.	We continue to monitor ACOP and CDO. Performance for 2024 is available in section titled Operational Noise Abatement Measures
Land-use Planning and Management	
We will actively contribute to improving aircraft noise information in local planning policy and seek to influence policy where appropriate. We will encourage the use of good acoustic design to avoid and minimise adverse impacts arising from the development of new noise sensitive buildings and encourage the adoption of the principles advocated by the Professional Practice Guidance: Planning & Noise – New Residential Development.	We continue to work with the local authority to make them aware that any application which may affect aerodrome safeguarding would need to be reviewed by the airport team and have applicable references in the local plan.
We will develop and implement a Noise Insulation Scheme to mitigate noise for residents most affected by aircraft noise.	The scheme was not opened in 2024 as there were no eligible properties. The scheme will open again in 2025

NAP Commitment	Progress
Operating Restrictions	
We will not permit scheduled flights or helicopters during the night-time period from 23:00 – 06:00 (Mon-Sat) and 23:00 – 07:30 (Sun), with exceptions only for emergencies or aircraft delayed by adverse weather or extraordinary Air Traffic Control procedures. We will also restrict the number of scheduled flights or helicopters that can occur during the ‘shoulder period’ of 06:00 – 07:00 (Mon-Sat).	S106 being adhered to in terms of any operation past 23:00. Reported to Consultative committee.
We will not permit more than 7,500 helicopter movements a year (during the day). We will not permit helicopter training flights other than for aircraft familiarisation.	There were 242 helicopter movements between 0600-2300 throughout 2024.
We will ensure the effects of noise are minimised and reduced as far as reasonably practicable by staying within the annual noise contour area limit of 16.1km ² for normally scheduled aircraft traffic.	We are monitoring this annually, the 2024 noise contour actual area was 5km ² (geographical area surrounding the airport affected by a noise level of 51dB LAeq on an average 16 hour summer day).

Appendix A: 2024 Average Summer Day Noise Contours



SOUTHAMPTON AIRPORT
2024 average summer day 51-72 dB L_{Aeq,16h} contours
 Actual runway modal split 71% RWY 20 / 29% RWY 02

© Crown Copyright and database right 2024. Ordnance Survey Licence number 100016105

