

# Annual Noise Report 2023

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## Air Traffic Statistics

### 2023 Summary

Through 2023 Southampton International Airport (SOU) facilitated 764,905 passengers. This includes passengers both arriving and departing from commercial, chartered, private and general aviation flights. There were 22,252 aircraft movements across the same flight types. Passenger numbers increased by 19% compared to 2022, and aircraft movements by 7%. One movement is classed as either one landing or one take off.

Southampton currently supports 10 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 2023. Loganair has the highest number of movements with 28% of all movements. SOU is a key link to the Channel Islands, with Blue Island and Aurigny airlines jointly accounting for 27% of all operations.

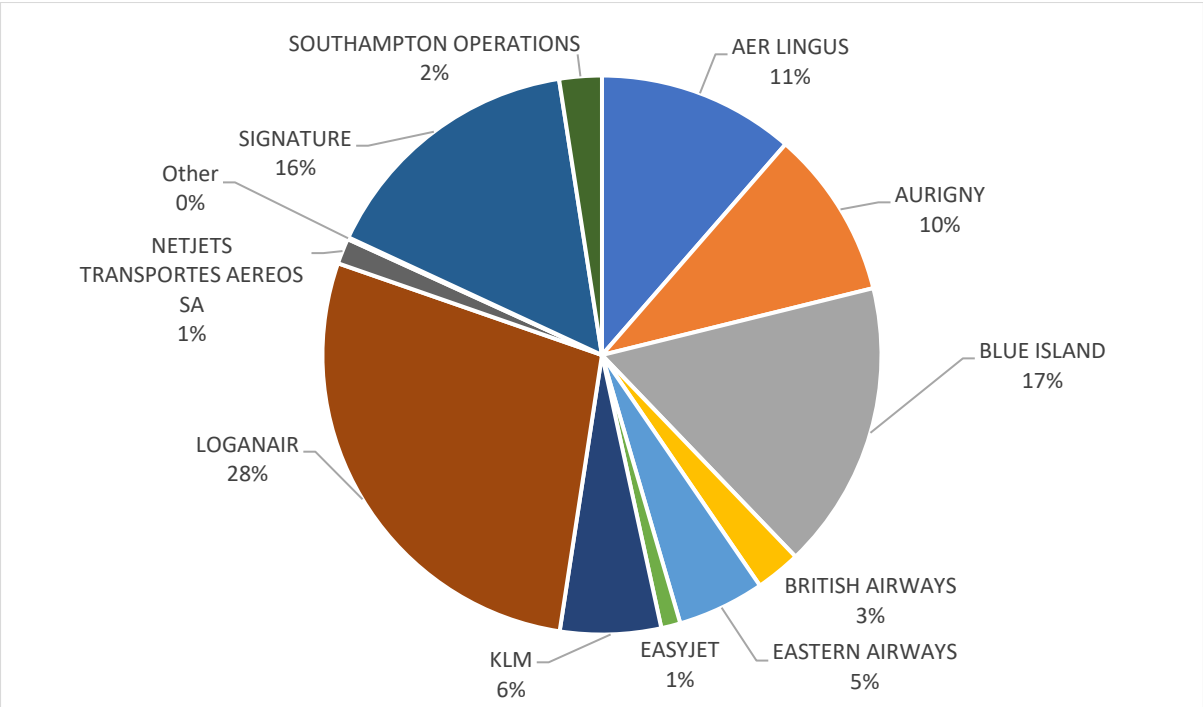


Figure 1 – Percentage split of movements by operators ('Other' includes any operator with <100 movements).

### 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 2023. The EMB-145 accounted for 28% of all movements. This is followed by the ATR 72, highlighting the importance of regional flights from the airport.

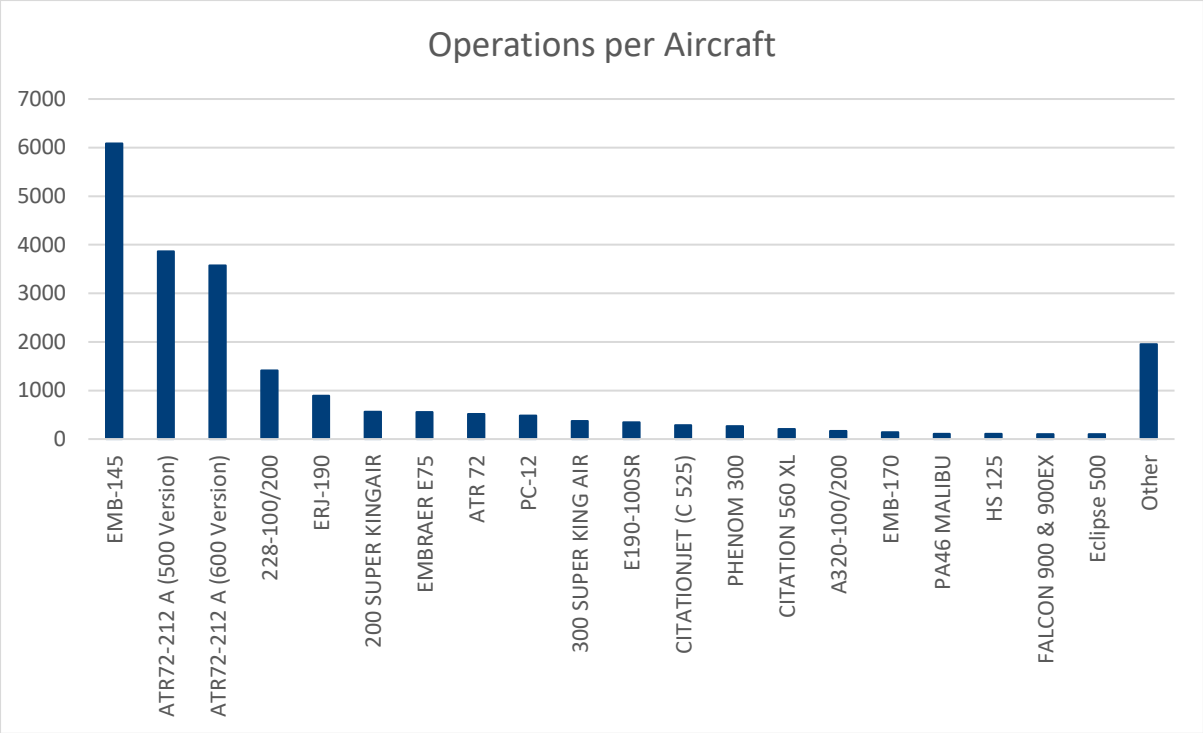


Figure 2 – Number of movements completed by each fixed wing aircraft type ('Other' – all aircraft with < 100 movements).

Figure 3 shows the monthly movements across 2022 and 2023. Monthly movements peak across the summer months from June to September in both years. The first quarter of 2023 shows increased movements compared to 2022 – predominantly a result of continuing recovery from COVID related impact.

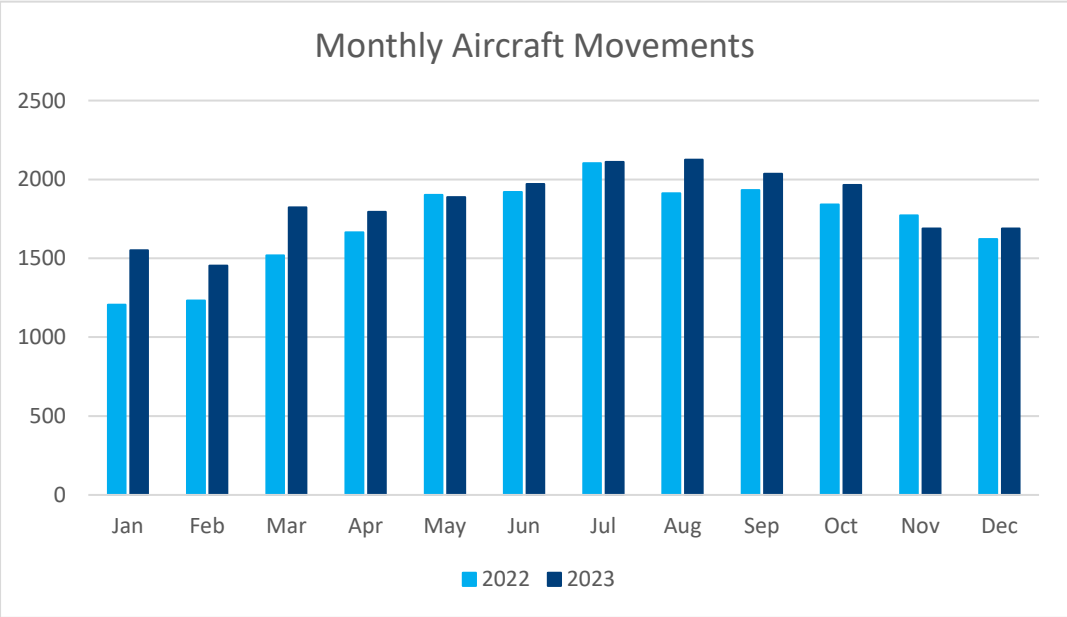


Figure 3 – Monthly aircraft movements from 2022 and 2023.

Figure 4 explores the average daily movements per month across 2022 and 2023. 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. In 2023, the month with fewest movements was January. The quietest day of the year was December 25<sup>th</sup> with zero movements. The busiest day was July 14<sup>th</sup>, with a total of 91 movements.

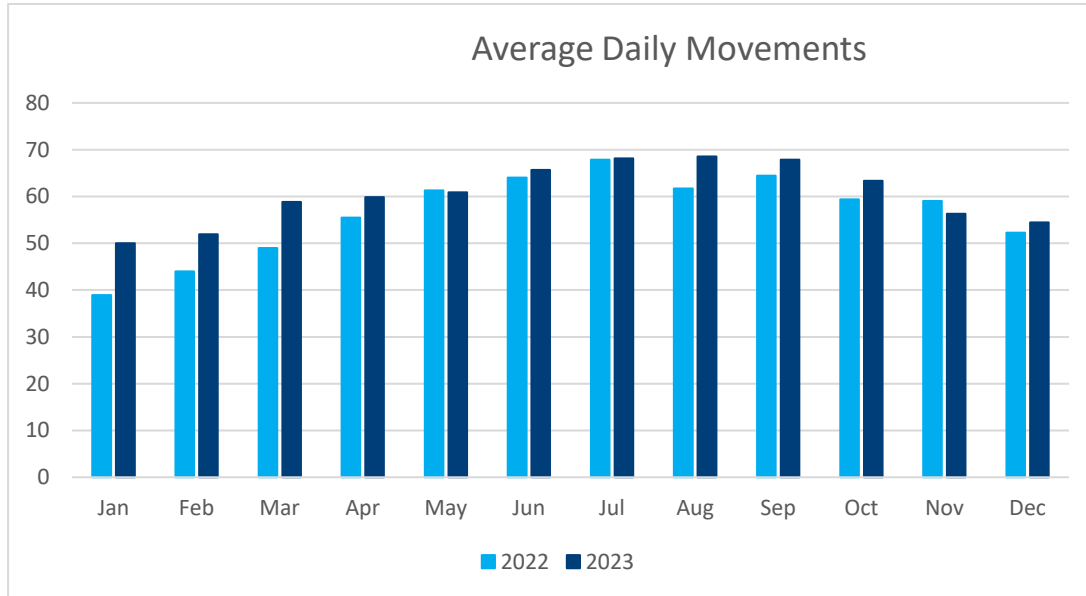


Figure 4 – Average daily aircraft movements per month in 2022 and 2023.

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 2130. The busiest time overall being between 0800-0859 with a total of 2701 across the year in this timeframe. Figure 5 shows the hourly breakdown of movements at the airport, for 2022 and 2023. There were 3 peaks across the day, 0800-0859, 1500-1559 and 1900-1959. The was true for both years. There were no operations before 0600 or after 2300.

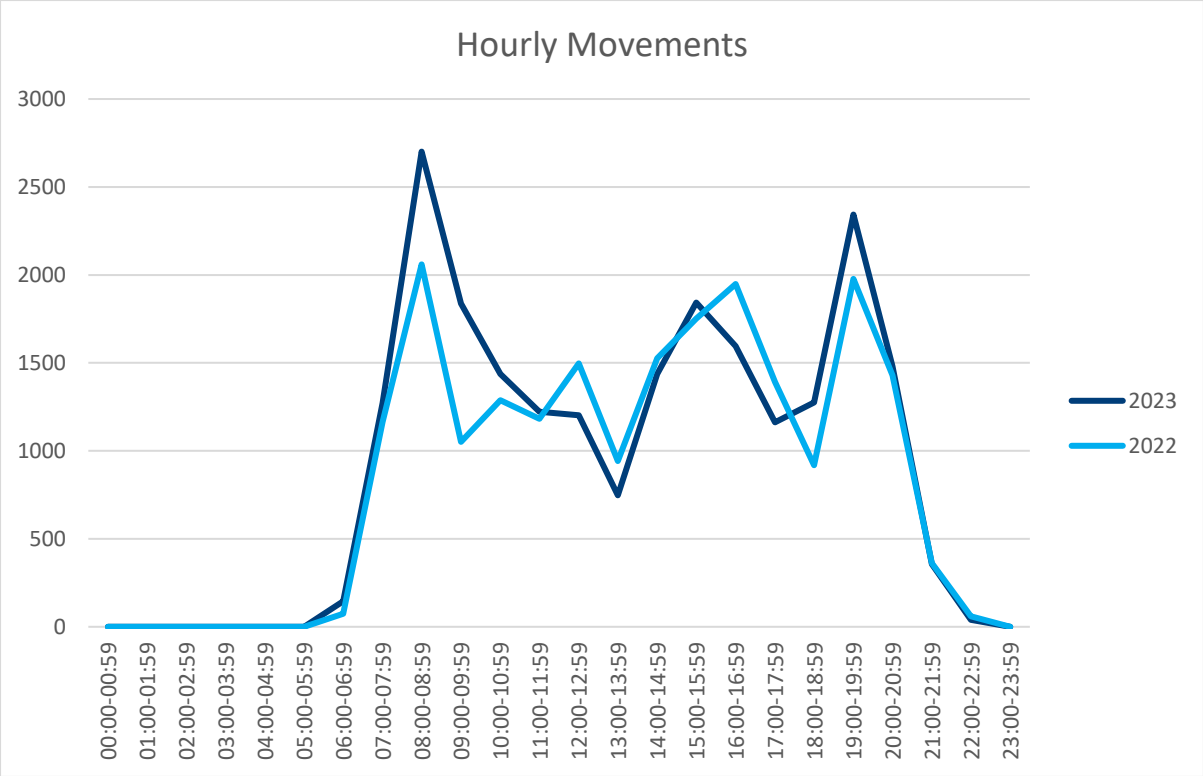


Figure 5 – Total flight movements for 2022 and 2023 per hour.

### Runway Movements Direction

SOU has one runway running North-North-East to South-South-West (02/20). The split of operations for 2023 is displayed in figure 6. Runway 20 is used more often than 02. Across the year Runway 20 was used 66% of the time, with the remainder on runway 02, this is due to wind direction and the need for aircraft to fly into the wind for safety reasons.

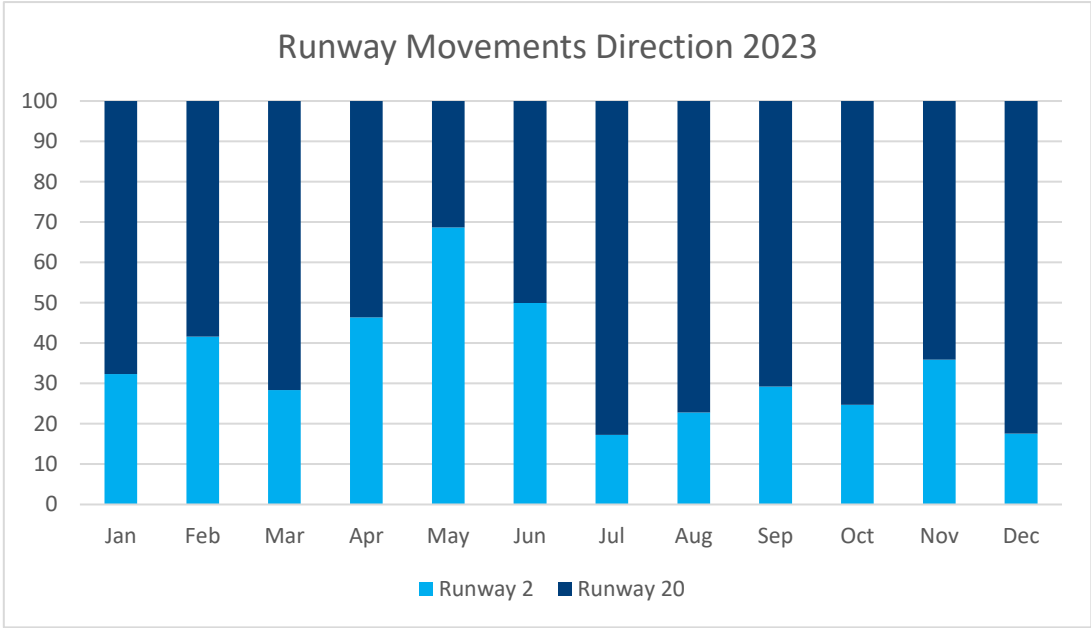


Figure 6 – Runway movements direction for 2023

## 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.

Figure 7 shows the CDO/CCO performance against targets in 2023. With CCD performing at 77% overall for the year, against a target of 84%, and CDO performing at 53% against a target of 58% (this was sitting in the red zone of <55%). The ATC team are currently investigating the missed target. 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).

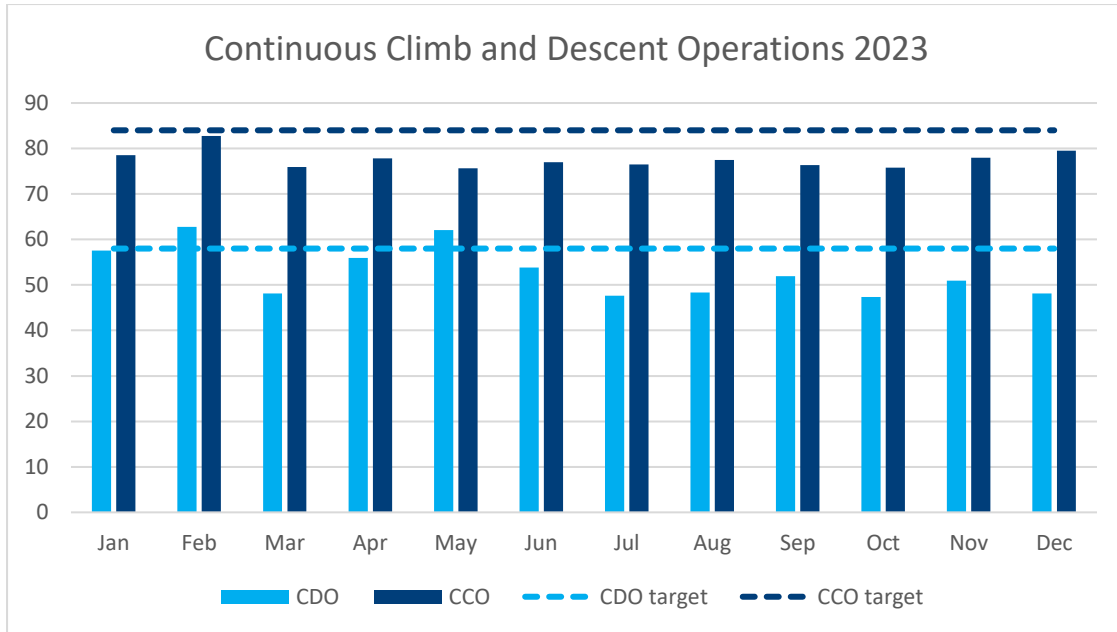


Figure 7 – Continuous climb and descent operations per month in 2023, with targets indicated.

### Aircraft Engine Testing

Aircraft will routinely test their engines to ensure they are operating correctly. In order 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;

There are two classifications of EGRs at Southampton Airport, depending on the reason. These are:

- To test engines or systems, on a planned, routine, or scheduled basis following planned, routine, or scheduled repair, servicing, or maintenance.
- To test engines or systems following repair, servicing, or maintenance of the aircraft concerned arising from a defect with the aircraft where it is not practicable for such repair, servicing, or maintenance to be carried out at a location other than on the airport.

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 2023. There were a total of 22 EGRs across the year, with all of these taking place between 0900-1800.



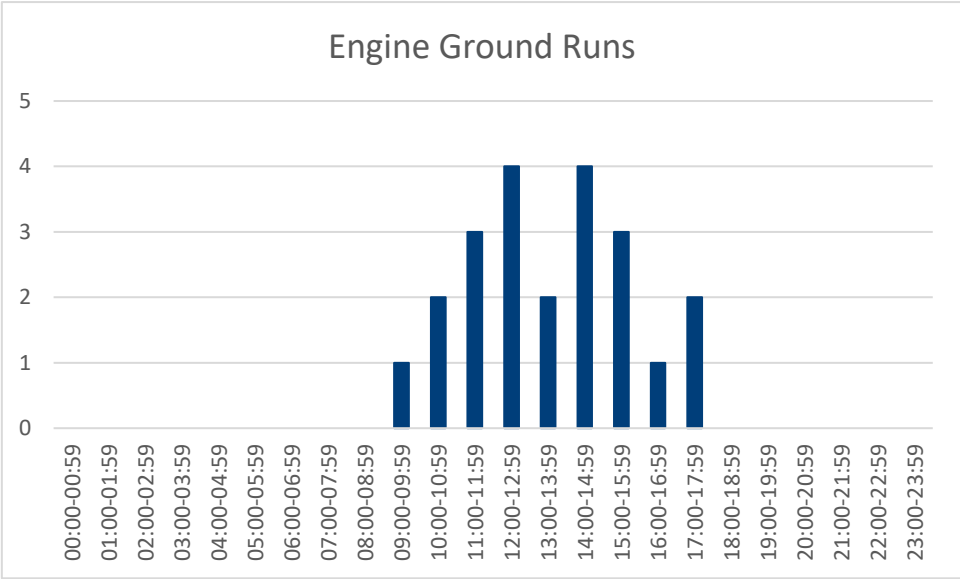


Figure 8 – Engine Ground Run timings across 2023.

### 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 383 complaints were received in 2023. Although there seems to be a significant decreasing trend relative to 2022, a direct comparison between 2022 and 2023 is not feasible, as the systematic recording of noise complaint data, through our noise complaint system, was introduced in March 2022.

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 from 2023. The month with the highest number of complaints in 2023 was July, receiving 57 complaints. The lowest months were October, November and December, receiving 15, 18 and 14 complaints respectively.



Figure 9 – Number of complaints received each month from 2023

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 56% of all complaints, although the vast majority originate from a single address. Portswood (10%) and Fair Oak (7%) 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 8 different areas within the city and further afield, including Twyford, Chandler’s Ford, Romsey, Woolston, Freemantle.

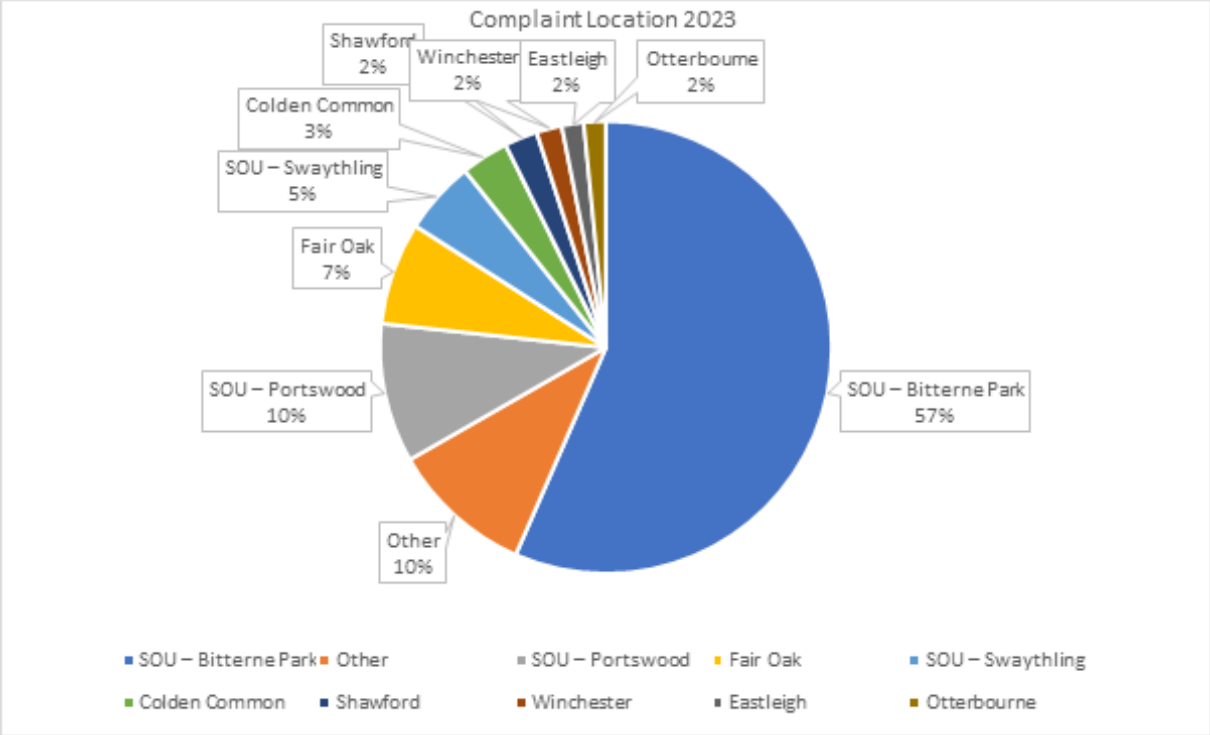


Figure 10 – Percent complaints received from each area (‘Other’ includes locations with less than 4 complaints or undeclared locations).

## 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. As well as being utilised by a number of other UK airports, Volans is also licensed by air traffic control providers NATS for use by the Airspace Change Organising Group (ACOG).

Globally, Volans is also used by the US Federal Aviation Administration (FAA) as the key visualisation tool for all Airspace Change, Outreach and Consultation projects, and by major US Airports such as San Francisco, Los Angeles, Chicago O'Hare/Midway Airports and by air traffic organizations worldwide such as NavCanada and Air Services Australia.

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. 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.

A number of pre-Noise Forum Meetings have been held to agree membership and the Chair was set out in the Terms of Reference in the Section 106 Appendix 6. The first full meeting of this forum will be held 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 60dBLAeq,16h summer noise contour. This is set out in the airport's Section 106 agreement with Eastleigh Borough Council. The noise contours will be calculated to reflect the summer 2024 period later this year. You can view the 2023 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. We will be reopening the scheme with updated 2024 summer data January 2025. You can find more information [here](#).

### Noise contour area limit

Section 106 has an annual noise contour area limit of 16.1km<sup>2</sup> for normally scheduled aircraft traffic. The airport is monitoring this annually, the 2023 noise contour area was 4.6km<sup>2</sup> (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 <sub>Aeq,16h</sub> (dB) > 51 | Area (km <sup>2</sup> ) |
|--------------------------------|-------------------------|
| 2023                           | 4.6km <sup>2</sup>      |
| 2024                           | 5.9km <sup>2</sup>      |
| 2025                           | 7.1km <sup>2</sup>      |
| 2026                           | 7.5km <sup>2</sup>      |

Table 1 Annual noise contour area limit per year

### Noise Action Plan

The 2023-2028 Noise Action Plan is currently with the Department for Environment, Food and Rural Affairs (DEFRA) for approval, in the interim, we share the draft of our commitments and progress against these on the table below.

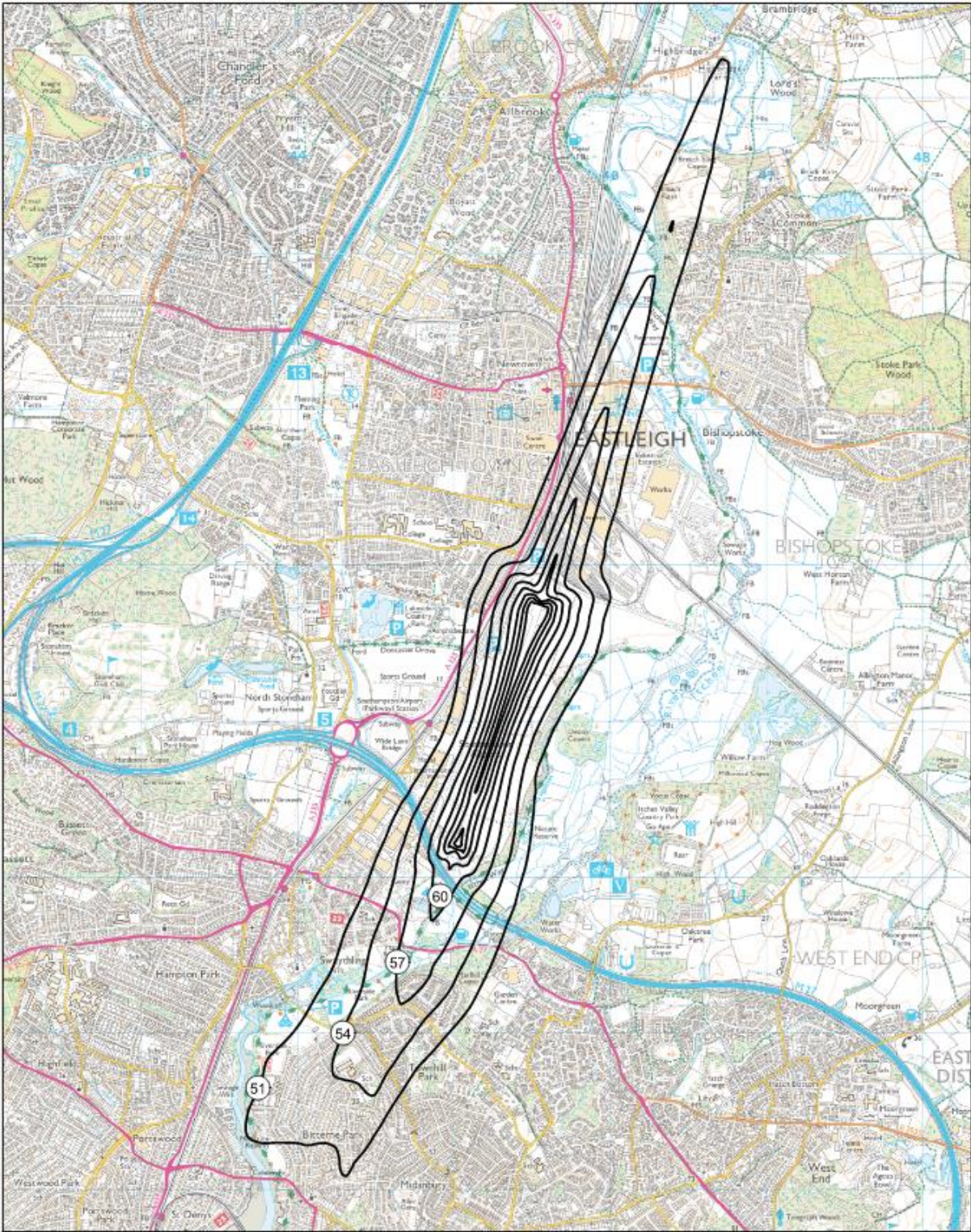
| Southampton International Airport 2023-2028 Noise Action Plan  |  |
|--|--|
| NAP Commitment   | Progress   |
| <b>Working with our local communities</b>  |  |
| We will prepare and submit a Health Strategy to the council to improve public outdoor spaces, promote their use for outdoor recreation and 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 |

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|  | Borough Council to manage on behalf of the fund.  |
| We will establish and maintain a Noise Forum whose objective is to: <ul style="list-style-type: none"> <li>· Improve communication between communities, other relevant stakeholders and the Airport management;</li> <li>· Promote greater understanding of noise and its impact on residential communities; and</li> <li>· Consider practical ways to minimise or avoid these impacts.</li> </ul>   | A number of pre-Noise Forum Meetings have been held to agree membership and the Chair as set out in the Terms of Reference in the Section 106 Appendix 6. The first full meeting of this forum will be held on the 10th April 2024.   |
| We will publish an Annual Noise Monitoring Report which will contain: <ul style="list-style-type: none"> <li>· noise contours for the previous year based on actual aircraft movements and predicted noise contours for the next three years;</li> <li>· information on the number of air transport movements for the previous year and projected air transport movements for the next 15 years;</li> <li>· information to demonstrate that the noise contour cap will not be exceeded;</li> <li>· progress against actions in the Noise Action Plan; and</li> <li>· 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).</li> </ul> | Completed and issued on the <a href="#">website</a> . The noise contour for the previous year and predicted contours is shown in the Appendix A below. 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. Noise Insulation Scheme information is displayed on the section above. |
| 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 <a href="#">website</a> . The current years contour map is available <a href="#">here</a>   |
| We will publish a new dedicated noise webpage with information on key noise initiatives and strategies.  | In progress. We intend to develop this further during 2024.   |
| 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  |
| 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. 92% of noise complaints were responded within 5 working days, the remaining 8% took longer to respond due to information request.  |
| 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 <a href="#">Southampton noise website</a> . Direct link to the tool is <a href="#">here</a> .   |
| 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 once established   |
| <b>Reduction of Noise at Source</b>  |   |
| 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 due in 2024  |

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| <p>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.</p>   | <p>Delayed. To be undertaken by end of Aug 2024</p>  |
| <p>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</p>   | <p>In progress. We are a member and continue to input to Sustainable Aviation working groups</p>   |
| <p>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.</p>   | <p>In progress. We are a member and continue to input to Sustainable Aviation working groups.</p>  |
| <p>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.</p>   | <p>Engine ground running controlled by monitoring against S106 agreement. Performance for 2023 is available in section titled Operational Noise Abatement Measures</p>   |
| <p>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.</p>                                  | <p>FEGP available on stands 2-5. Currently changing contractor to provide greater resilience and less down time. Due for implementation 2024</p>   |
| <p>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.</p>  | <p>Single engine taxi to be discussed at internal Flight Operations Safety Committee.</p>  |
| <p><b>Noise Abatement Operational Procedures</b></p>  |  |
| <p>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.</p>   | <p>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.</p>  |
| <p>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.</p> | <p>ICCAN has since been disbanded, we review any relevant guidance available.</p>  |
| <p>We will continue to apply and monitor the Noise Abatement Procedures until we have successfully implemented our Airspace Change Proposal.</p>  | <p>We are monitoring Noise Abatement Procedures. We intend to consult this summer with our airlines on a penalty mechanism for non compliance.</p>   |
| <p>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.</p>   | <p>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 <a href="#">Airspace Change Programme   Southampton Airport</a></p> |

|   |   |
|---|---|
| <p>We will promote adherence to the Arrivals Code of Practice (ACOP) and in particular the achievement of Continuous Descent Operations (CDO) where possible.</p>   | <p>We continue to monitor ACOP and CDO. Performance for 2023 is available in section titled Operational Noise Abatement Measures</p>  |
| <p><b>Land-use Planning and Management</b></p>  |   |
| <p>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 &amp; Noise – New Residential Development.</p> | <p>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.</p> |
| <p>We will develop and implement a Noise Insulation Scheme to mitigate noise for residents most affected by aircraft noise.</p>   | <p>The Noise Insulation Scheme can be viewed here. The scheme was not opened in 2024 as there were no eligible properties. This will be reviewed on an annual basis and we expect the scheme to open in Jan 2025.</p>               |
| <p><b>Operating Restrictions</b></p>  |   |
| <p>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).</p>                                     | <p>S106 being adhered to in terms of any operation past 23:00. Reported to Consultative committee.</p>  |
| <p>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.</p>   | <p>There were 170 helicopter movements between 0600-2300 throughout 2023.</p>   |
| <p>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<sup>2</sup> for normally scheduled aircraft traffic.</p>  | <p>We are monitoring this annually, the 2023 noise contour area was 4.6km<sup>2</sup> (geographical area surrounding the airport affected by a noise level of 51dB LAeq on an average 16 hour summer day).</p>                      |

Appendix A: 2023 Average Summer Day Noise Contours



**SOUTHAMPTON AIRPORT**  
**2023 average summer day 51-72 dB L<sub>Aeq,16h</sub> contours**  
Actual runway modal split 81% RWY 20 / 19% RWY 02



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