

Annual Noise Report 2023

Air Traffic Statistics

2023 saw 7.37 million passengers at Glasgow Airport. This includes passengers both arriving and departing from commercial, chartered, private and general aviation flights. There was a total of 75,985 aircraft movements¹(ATM's) in 2023 across the same flight types. 2023 saw an increase on 2022 passenger and aircraft numbers as the aviation industry continues to return to pre-COVID-19 pandemic levels.

Glasgow Airport supports over 15 airlines flying to over 100 destinations worldwide. More information can be found at www.glasgowairport.com/destinations with information on new routes and an interactive destination map. Figure 1 below shows the percentage split between each airline / aviation operator in 2023.

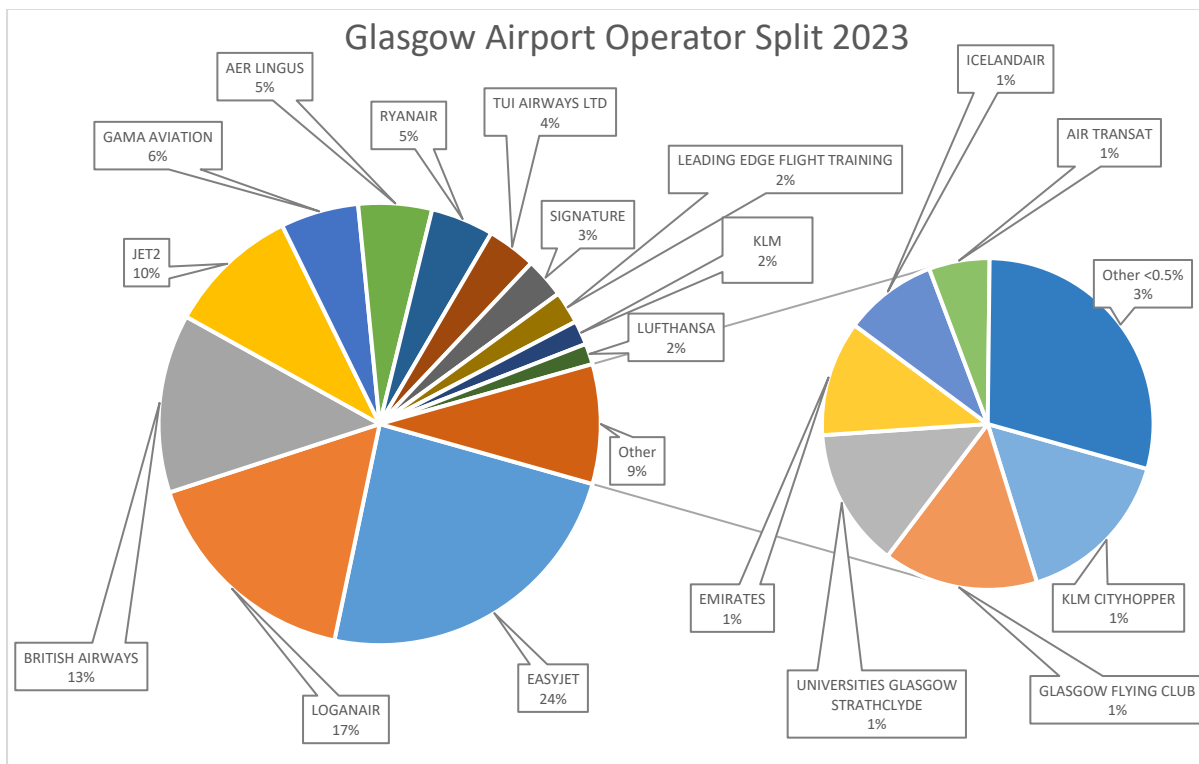


Figure 1 Airline/Aviation Operator split of ATMs across 2023.

Figure 2 summarises the number of movements per specific aircraft type in 2023. In addition to passenger flights, Glasgow Airport facilitates, cargo, general aviation, air ambulance, military and training flights. Glasgow Airport is pleased to support the Airbus A320Neo which is powered by Pratt & Whitney GTF™ engines that contribute to the A220's 25% lower fuel burn per seat ²when compared to previous-generation aircraft, as well as half the noise footprint and decreased emissions. The Airbus A320 is gradually being phased out and replaced with the more sustainable model. In 2023, the A320 Neo made up 10% of all aircraft movements – this is a 5% growth compared to 2022.

¹ An aircraft movement is defined as either an arriving or departing aircraft

² <https://www.airbus.com/en/products-services/commercial-aircraft/passenger-aircraft/a220-family>

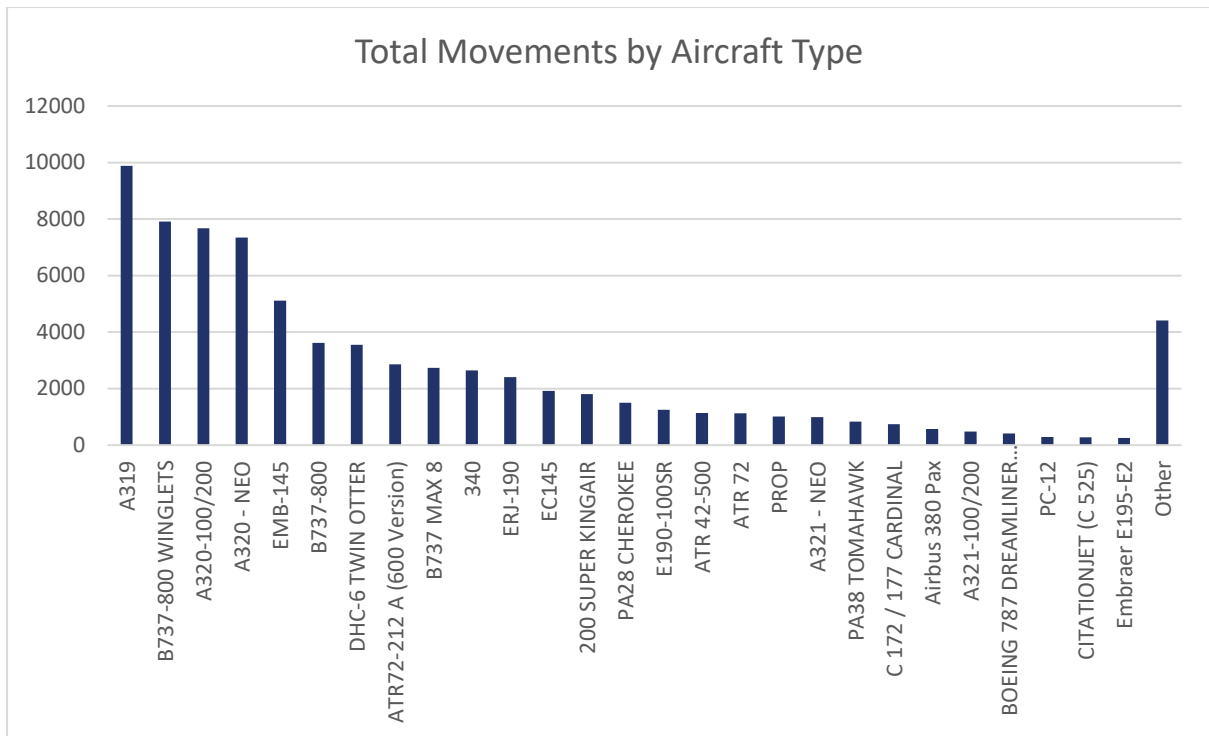


Figure 2 - Total movements by aircraft type. 'Other' includes all aircraft with <250 movements.

Figure 3 shows our average daily aircraft movements per month. 2023 saw the average daily movements grow slightly compared to 2022. The pattern of average daily movements in 2023 followed a very similar pattern to 2022, with most flights during the summer months, and fewest movements in the winter months. June was the peak in 2023 with an average of 243 movements. The busiest day was 2nd of June 2023 with 294 movements. The quietest month was January at an average of 153 movements. The quietest day fell on the 25th of December with only 58 movements.

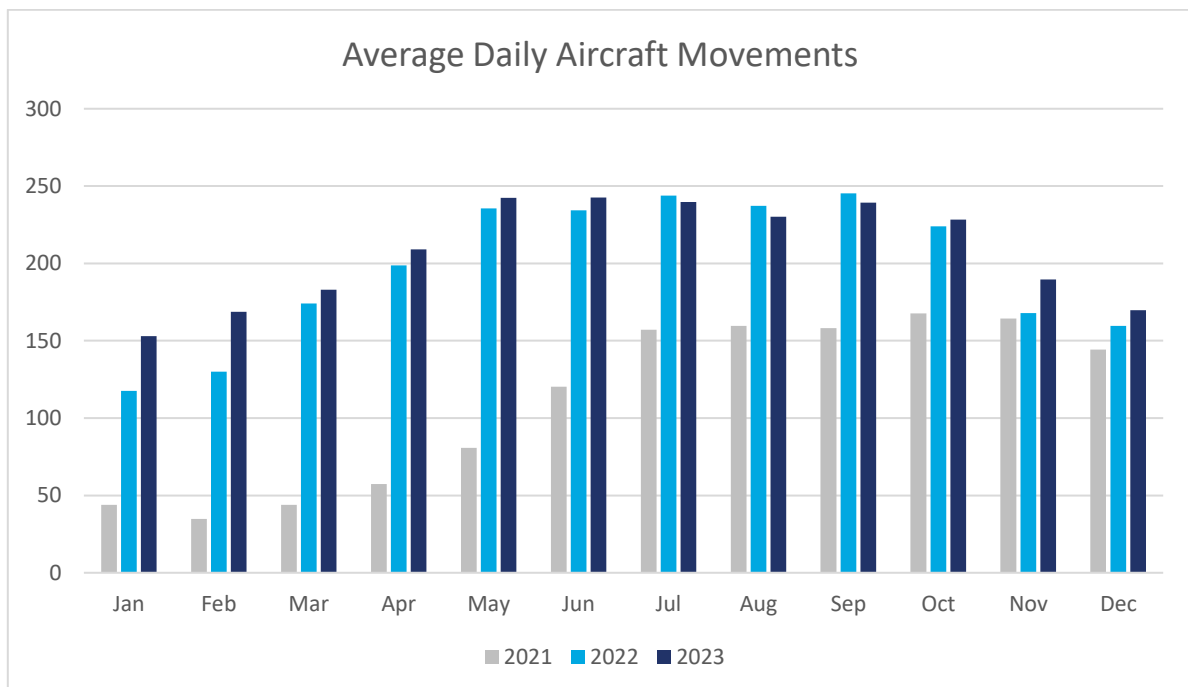


Figure 3 - Average daily movements across each month from 2021-2023.

On average, the busiest period for arriving aircraft in 2023 was between the hours of 1400-1500 with a total of 2916 aircraft departing during this timeslot across 2023. The average peak time for aircraft departing in 2023 was between 1400-1500 with a total of 1592 aircraft landing during this timeslot. The average busiest timeslot for total aircraft movements fell between 0700-0800 with a total of 3281 movements during this period. Figure 4 also highlights that flight arrivals and departures between the hours of 23:00–07:00 make up 9% of all aircraft movements totalling 7109 movements vs 7.5% in 2022.

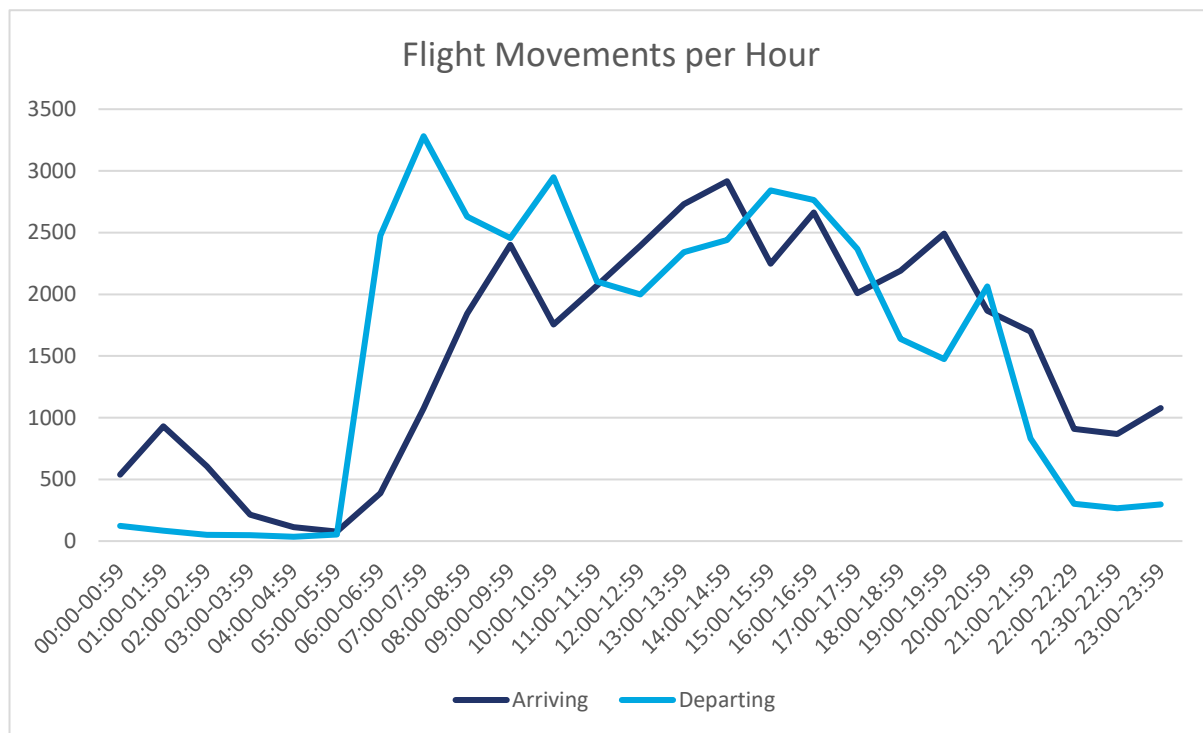


Figure 4 - Number of movements per hour, split into arriving and departing movements.

In 2023 63% of flights have utilised Runway 23; arriving from the east over the Bearsden and Clydebank areas and Departing towards the west over the Linwood, Johnstone and Howwood areas. 31% of flights have utilised Runway 05; arriving from the west and departing towards the east. A small number of flights did not have the runway data recorded, accounting for 7.5% of total flights. This split can vary within the months and is wholly dependent on the prevailing wind direction. Figure 5 shows the monthly split of runway use over the course of 2023.

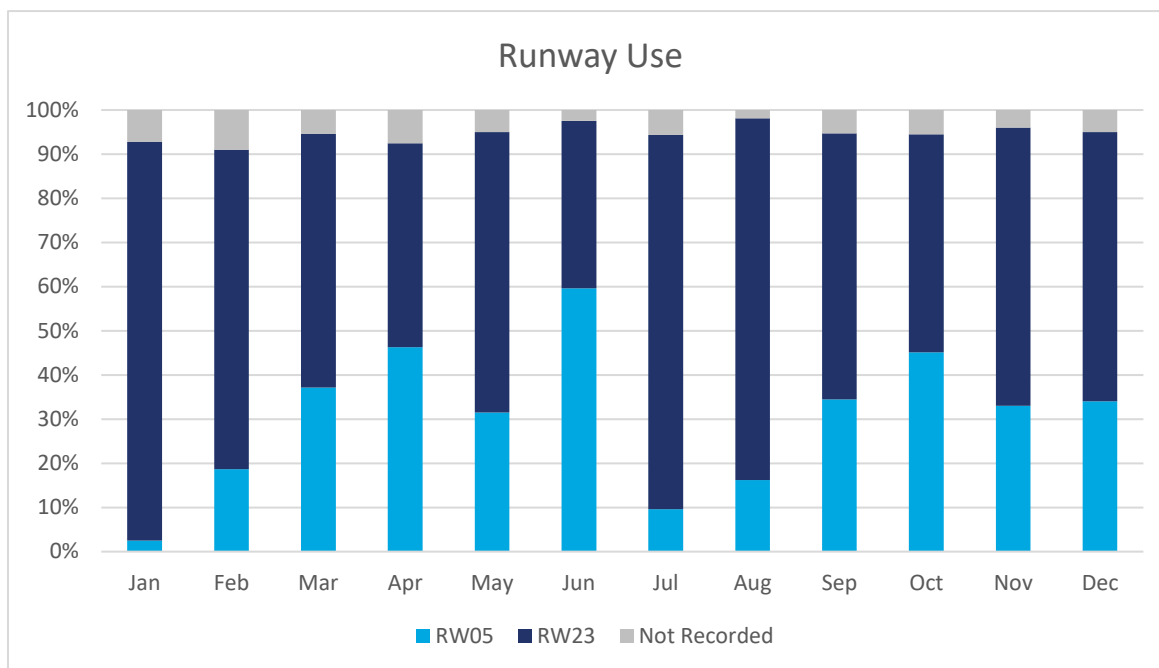


Figure 5 - Runway usage split across each month in 2023.

Operational Noise Abatement Measures

Continuous Descent and Continuous Climb

Glasgow 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 6 shows the monthly CDO performance totals and targets. The overall CDO compliance on aircraft arriving on Runway23 was 71.6% against a target of 68%. The overall CDO compliance on aircraft arriving on Runway 05 was 67.03% against a target of 61%. Due to recording restrictions CCO is reported as a combined figure for Runways 23 and 05 – figure 7 shows the monthly CCO performance totals and targets. The overall CCO compliance for both runways combined was 94.2% against a target of 94%.

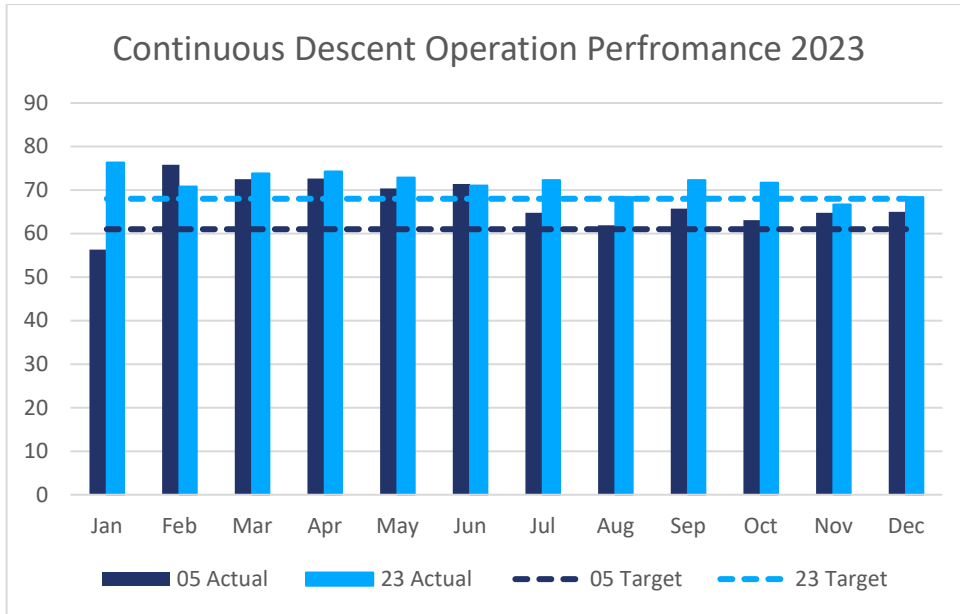


Figure 6 Monthly CDO performance and targets for both Runway 23 and 05.

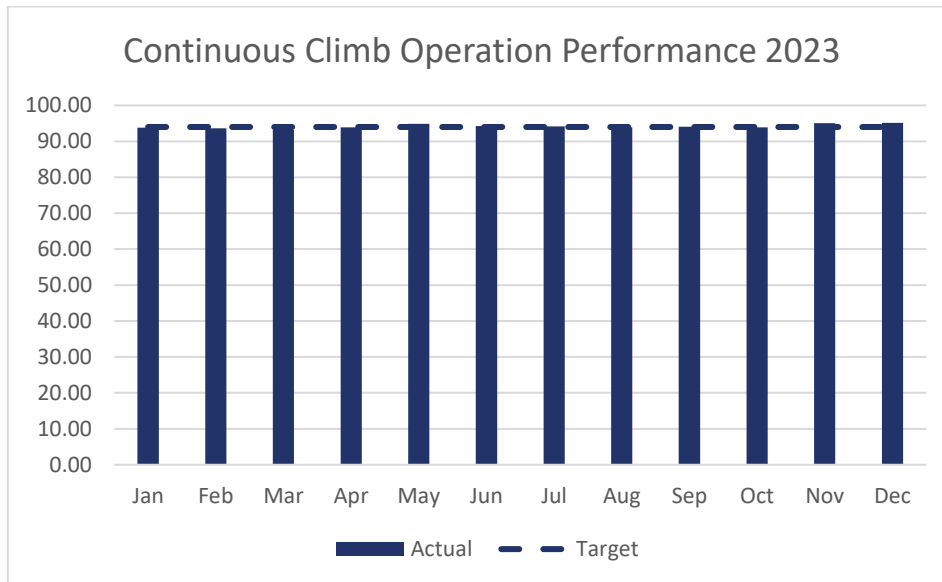


Figure 7 - Monthly CCO performance and target for all departures.

Aircraft Engine Testing

Aircraft will routinely test their engines to ensure they are operating correctly. The times and locations of these engine runs are restricted to ensure noise disturbance as a result, is minimised. Engine test runs are not permitted between the hours of 23:00 and 07:00, except in exceptional circumstances. Engine runs carried out within these times must only occur for a maximum of 5 minutes and must be on low power/idle mode. Table 1 shows the number of engine runs that have taken place during each time frame in 2023.

Table 1- Engine runs for 2023 spit into timeframes.

Time Period	0500-0700	0700-2300	2300-0500	Total
Q1 - Jan-Mar	6	257	1	264
Q2 - Apr-Jun	9	174	1	184
Q3 - Jul-Sep	14	296	6	316
Q4 - Oct-Dec	4	206	3	213

Correspondence & Complaints

As part of our noise action plan commitment, we have a dedicated noise action telephone line (0800 013 2429) and email inbox (GLAnoise@glasgowairport.com). We endeavour that all complaints will be responded to within 3 working days. All complaints are tracked, logged and trends are reviewed.

There were 56 recorded complaints in 2023. This is a decrease of 11% compared with 2022. Complaints were split between the 10 categories noted in Figure 7. General Noise was the main cause of complaints, with complaints related to night flights and flight paths being the next largest categories. Out of the 56 complaints there were a total of 45 complainants.

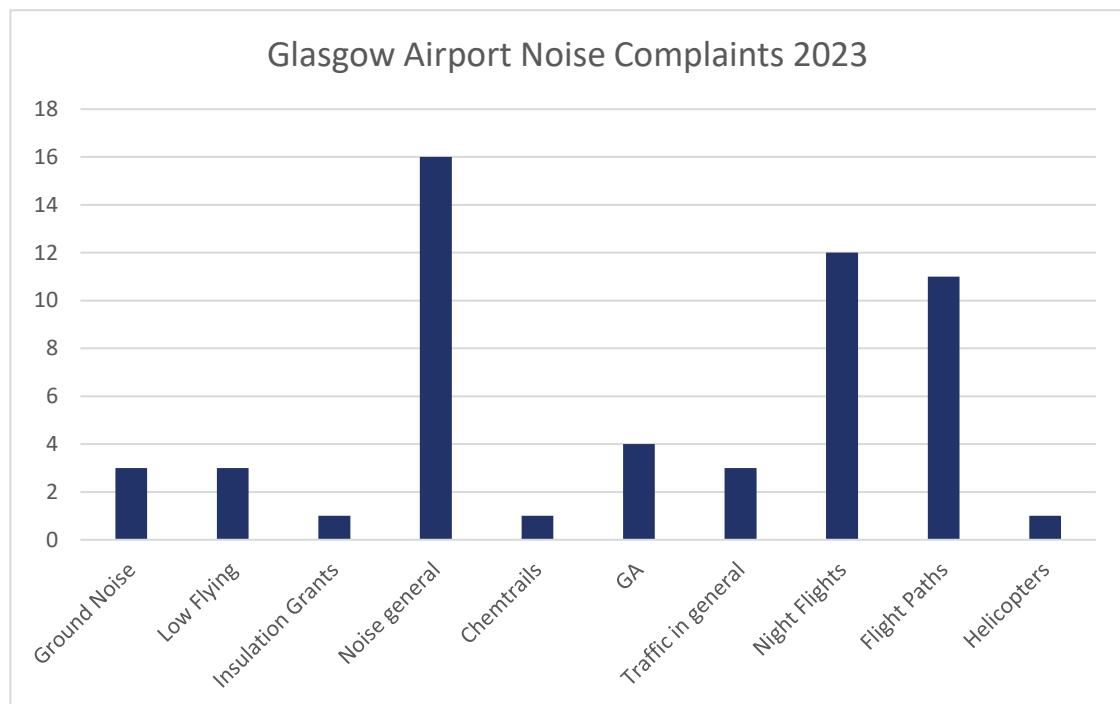


Figure 8 - Noise complaint categories for Glasgow Airport

Figure 8 shows that the highest number of complaints were, as expected, voiced during the summer period of June - September, where aircraft movements were at their peak. This is on trend with 2022. As seen earlier in Figure 5, runway 05 was used more than usual in the month of June - this could contribute to the increased number of complaints seen during the month.

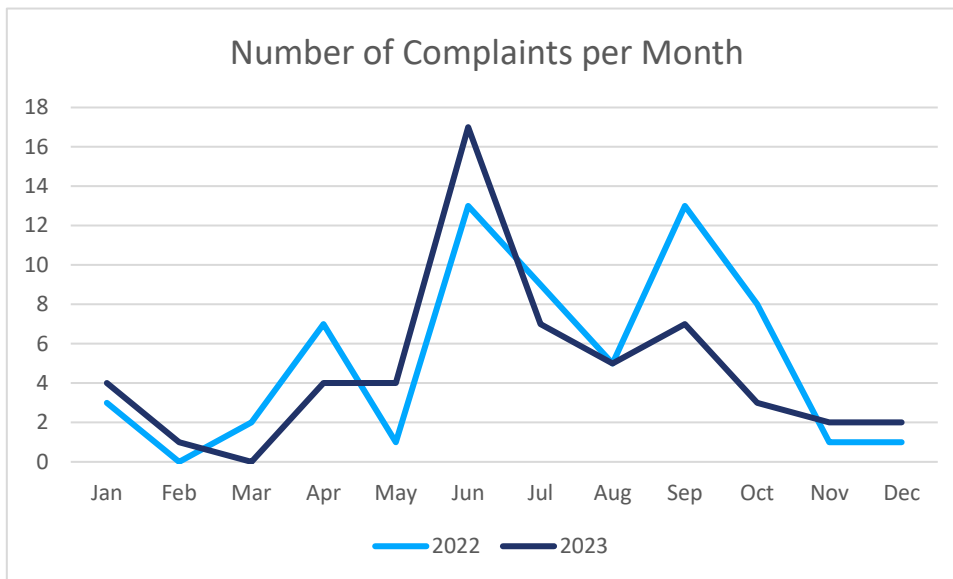


Figure 9 - Number of complaints per month 2022-2023

The geographical location of noise related correspondence and complaints covers a widespread area. 34% of complaints in 2023 came from the Bearsden area at the northeast of the runway. 13% did not provide their location and the remaining 53% of complaints were widely scattered around the flightpath. Figure 9 shows all areas where 2 or more complaints were received from.

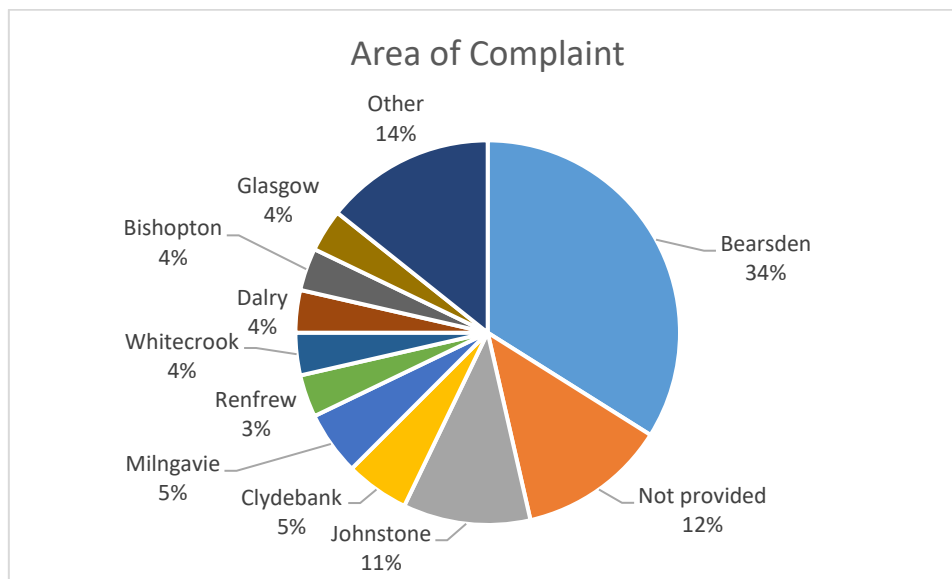


Figure 10 - Areas of noise complaints - Other includes 8 locations with one complaint each.

Noise Monitoring

Glasgow Airport actively monitor the noise levels of both our arriving and departing aircraft with two permanent noise monitoring terminals located towards the end of each runway. Noise levels must not exceed 94 dB LA_{Max} during the day or 87 dB LA_{Max} at night. If any breaches are recorded, airlines will be fined accordingly. In 2023 there were no recorded infringements of these noise levels.

Flight Tracking Portal

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

The Flight Tracking Portal 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 Glasgow Airport Flight Tracking Portal click [here](#).

Community Liaison

Glasgow Airport Consultative Committee

Glasgow Airport runs a Consultative Committee on a quarterly basis in which noise is a standing agenda item. The consultative committee provides a regular forum for the management of Glasgow Airport to discuss matters relating to its operation. More information on this can be found at our website <https://www.glasgowairport.com/glasgow-airport-consultative-committee/>.

Noise Insulation Scheme

The Noise Insulation Grant Scheme (NIS) has been established by Glasgow Airport Limited ("Glasgow Airport") to provide an opportunity for eligible properties to apply for a noise insulation grant. 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 Glasgow Airport. The NIS was launched end of the year 2023. There are two eligible properties in this round of the scheme. Glasgow airport will be reviewing the contour data end of 2024 and contacting the eligible houses. The 2023 noise contour can be found in Appendix A of this report or [here](#) . The management of the NIS is overseen by an independent management committee made up of airport managers and representatives of the local communities, known as the Airport Consultative Committee (ACC). For further information on the scheme see our dedicated web page [here](#).

Noise Action Plan

The noise action plan for Glasgow is currently being updated and will be going to consultation this summer 2024.

Glasgow Airport 2018-2023 Noise Action Plan	
Action	Progress
Reduction of noise at source	
We will develop, publish and implement a policy prioritising airlines operating Chapter 4 and Chapter 14 aircraft when introducing new business to Glasgow.	This action is currently being progressed through a benchmarking review
We will work with the airlines through our airline consultation process to review the landing fee differential to incentivise the use of quieter aircraft.	This action is currently being progressed through a benchmarking review
We will continue to work with our partners in the aerospace sector through Sustainable Aviation to achieve the visionary noise goals of FlightPath 2050 which seek to achieve a 65% reduction in perceived noise, or 15dB, from aircraft by 2050 compared to 2000.	In progress. We are a member and continue to input to Sustainable Aviation working groups.
Land-use planning and management	
We will engage directly with local planning authorities to ensure awareness of aircraft operations is considered in the development of sensitive land uses. We will continue to contribute to local development plans and monitor planning applications within the vicinity of Glasgow Airport.	Excellent links with local planning authorities continuing. We continue to work with the local authorities 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 Policy to mitigate noise for residents most affected by aircraft noise in line with UK Airspace Policy. We will continue to offer our existing home relocation schemes.	This was launched in 2023, and will be updated on an annual basis.
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.	Ongoing through existing links with local planning authorities
Noise abatement operational procedures	
We will promote adherence to the Arrivals Code of Practice (ACOP) and in particular the achievement of Continuous Descent Operations (CDO) where possible.	Promoted through the Flight Operations Committee
We are currently developing our airspace change proposal (ACP) and we will review and report on aircraft performance and adherence to departure routes in the first 12 months of its implementation.	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 Glasgow Airport
We will continue to fine aircraft in breach of our departure noise limits (94dB(A) during the day and 87dB(A) during the night) and direct the money raised through these fines to the FlightPath Fund.	Policy in place and operational.
We will continue to encourage aircraft operators to plan maintenance schedules to avoid the need for ground running of engines at night. We will continue to enforce our policy that runs should not last longer than 20 minutes. We will investigate any complaints received from ground running activity and revisit our policies if appropriate. We will report on the frequency and times of engine running to the local community through the website.	Engine Runs are logged and monitored and discussed at Flight Operations Committee Investigated where noise complaints are made. Reported on website
Our Noise Action Plan is consistent with the ICAO Balanced Approach and EU Regulation 598, which requires operating restrictions to be considered only after other measures of the Balanced Approach have been exhausted and only where it is cost effective to do so. We will continually review the effectiveness of our mitigation measures in the context of the Balanced Approach to ensure that mitigation is considered in a consistent way with a view to addressing noise impacts in the most cost-effective way.	In place and continuously monitored.
Working with local communities	
We will discuss noise issues and report on our progress against the Noise Action Plan under a standing agenda item of the Consultative Committee.	Noise is discussed at the ACC and in preparation for the

	forthcoming NAP and ACP consultations has a standing agenda point
We will carefully consider any best practice guidance published by ICCAN on information and communication requirements.	ICCAN has since been disbanded, we review any relevant guidance available.
We will continue to operate a free noise action line and dedicated email inbox. We will log all complaints, seek to respond to 100% of complaints and enquiries within three working days and report our performance to the Glasgow Airport Consultative Committee and in the FlightPath newsletter.	Noise Action Line and email inbox is live and regularly monitored.
We will continue to operate the Noise and Track Keeping system to enable monitoring and investigation of noise issues.	System in place and used consistently.
We will make our Noise and Track Keeping system publicly available on our website. This will provide transparent information on flight paths and noise levels from each aircraft.	Flight tracking and noise footprint software is available to view here VolansPublic (airportnetwork.com)

Appendix A: 2023 Average Summer Day Noise Contours

