



Aberdeen International Airport Annual Noise Report 2021

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Air Traffic Statistics

2021 Summary

In 2021, Aberdeen International Airport (ABZ) supported nearly 1.14 million passengers, through approximately 65,000 aircraft movements. This includes passengers both arriving and departing from commercial, private, and chartered flights. Of these passengers there were almost 800,000 through the main fixed-wing terminal, and over 340,000 through the four helicopter terminals on site.

The effects of the COVID-19 pandemic were still felt during 2021, however travel restrictions did begin to ease and we saw a 10% increase in our passengers compared to 2020. With an 8% increase in aircraft movements. Still not hitting the nearly 3 million passengers seen pre-pandemic in 2019 – but a sign of the aviation industry on the road to recovery.

2021 saw the beginning of the recovery from the pandemic, however, it will be difficult to use direct comparisons to 2020 as this was an anomalous year. Please consider the context of these impacts whilst reading this report.

Aberdeen International Airport supports over 15 different airlines and flies to multiple destinations across the UK and internationally. More information can be found at <https://www.aberdeenairport.com/flight-information/destinations/>. Figure 1 below shows the percentage split between each airport operator in 2021. Loganair remains one of the biggest operators in terms of number of flights within the airport, making up 19% of all operations. In 2021 this was driven by the fact they maintained lifeline operations between Aberdeen and the Islands all through the pandemic.

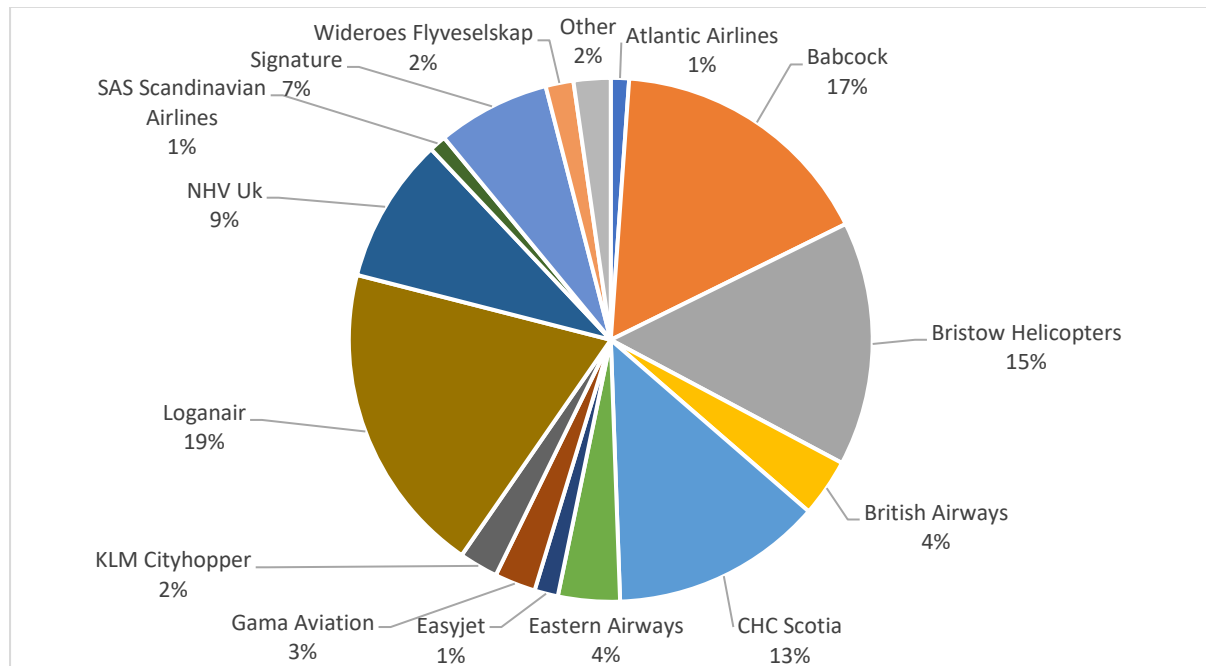


Figure 1 Percentage of flights operated by each airline at Aberdeen Airport. Airlines with <500 movements are combined into 'Other'.

Figure 2 presents the flight movements split by fixed wing and helicopter operations at Aberdeen Airport during 2021. Aberdeen Airport is home to one of the Europe’s busiest commercial heliports supporting the offshore industry. This is clearly seen in the percentage of helicopter operations compared to overall movements at the airport, with helicopters making up 54% of the movements in and out of Aberdeen Airport.

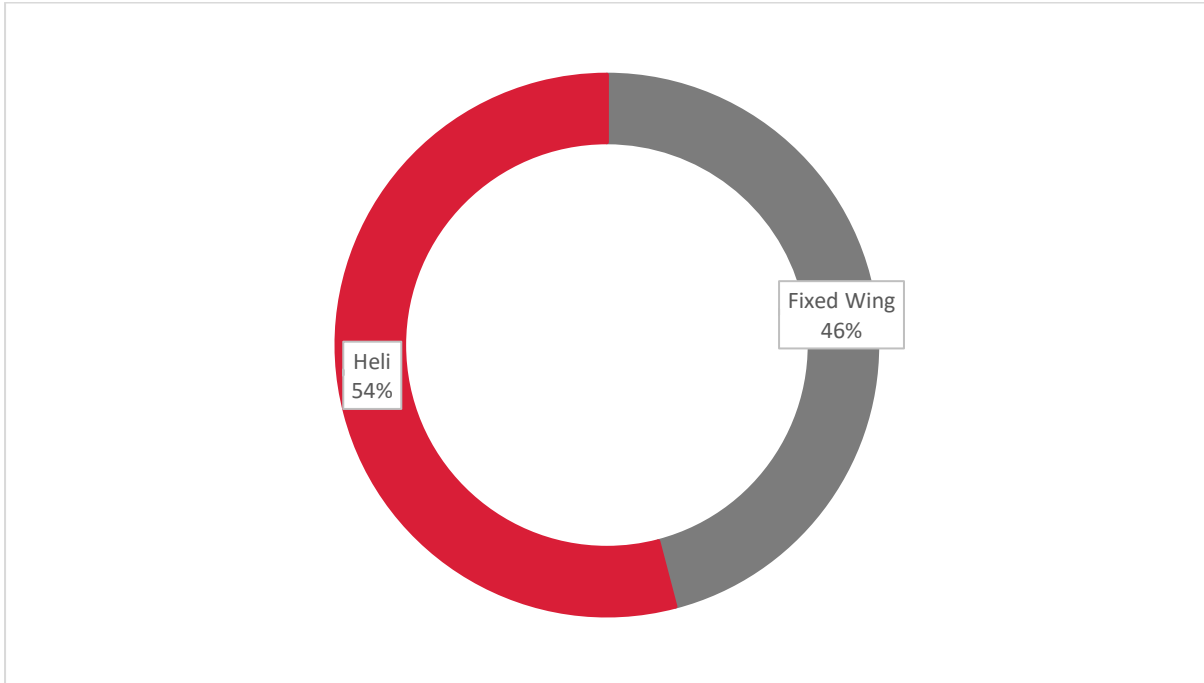


Figure 2 Flight movements split by fixed wing and helicopter operations at Aberdeen Airport during 2021.

Aircraft Movements

Aberdeen Airport operates throughout the entire year, during all times without exception, with restrictions on commercial rotary operations only. As a noise mitigation strategy, there are no helicopter operations between the hours of 22:30 and 06:00 daily, except for emergencies. Along with commercial, Aberdeen airport supports cargo, air ambulance, general aviation, military, and training flights. In total there were 134 different types of aircraft arriving and/or departing from the airport in 2021. Figure 3 presents the helicopter movements for Aberdeen Airport in 2021 categorised by aircraft type. Flights using the S-92 model comprise 55% of helicopter movements, with the remainder of flights being a mix of six aircraft. The S-92 is one of the larger models and carries up to 19 passengers. Figure 4 presents the fixed-wing movements for Aberdeen Airport categorised by aircraft type. Movements from fixed wing aircraft were spread across more aircraft types – with the highest single aircraft being the Saab 340 at 15% of movements.

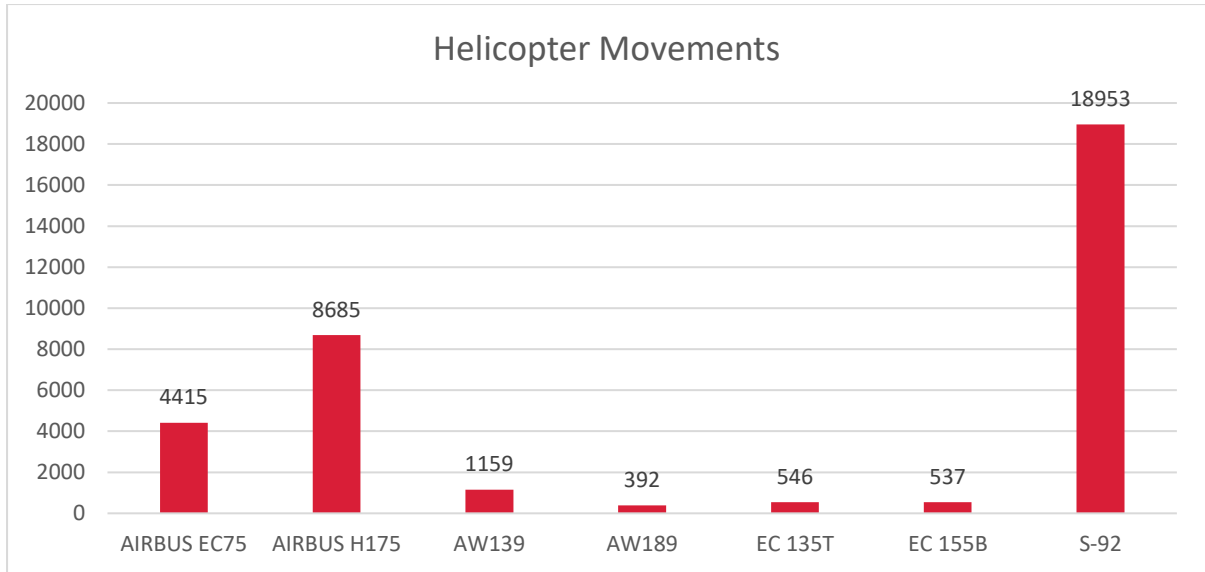


Figure 3 Helicopter movements for Aberdeen Airport in 2021, categorised by aircraft type.

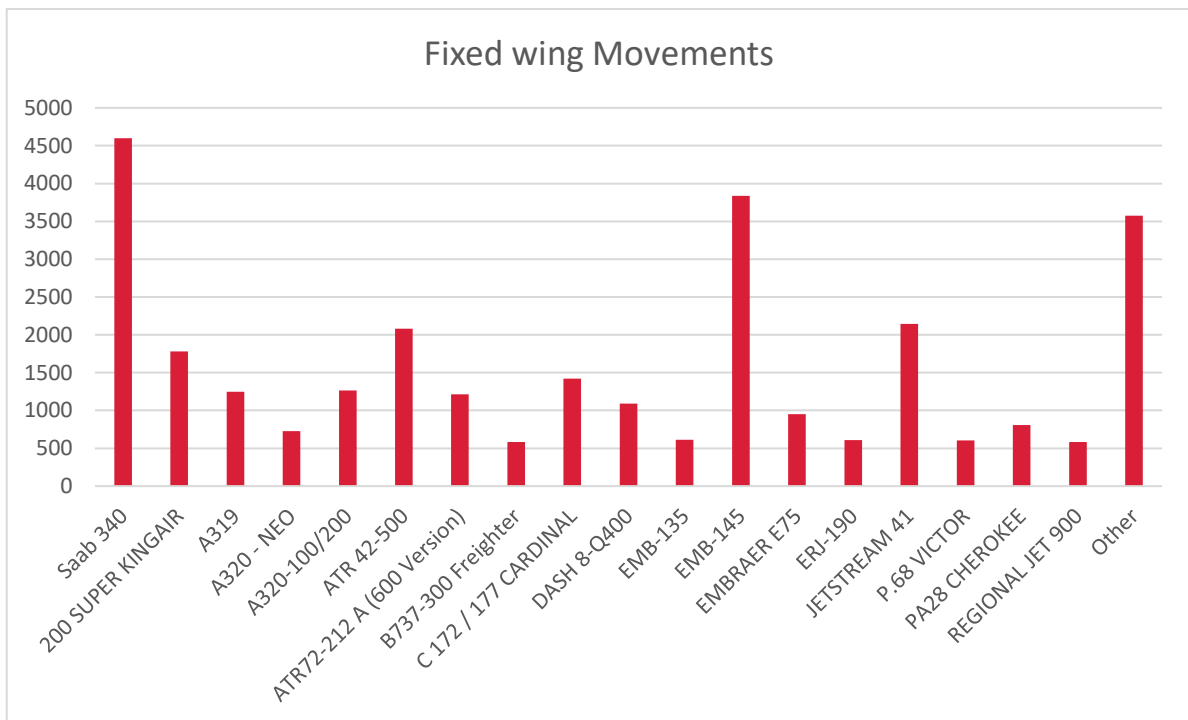


Figure 4 Fixed wing movements for Aberdeen Airport in 2021, categorised by aircraft type.

Figure 5 presents the monthly spread of aircraft movements during 2021, including fixed wing aircraft and helicopters. Flights can be seen to generally increase throughout 2021, up until August where they levelled off for the winter season. Between Apr-Dec in 2020 vs 2021 there is a stark increase in the monthly aircraft movements in 2021. This is due to COVID-19 restrictions gradually being lifted throughout 2021 in various countries, allowing for increased travel – an indication that aviation has been recovering since the pandemic.

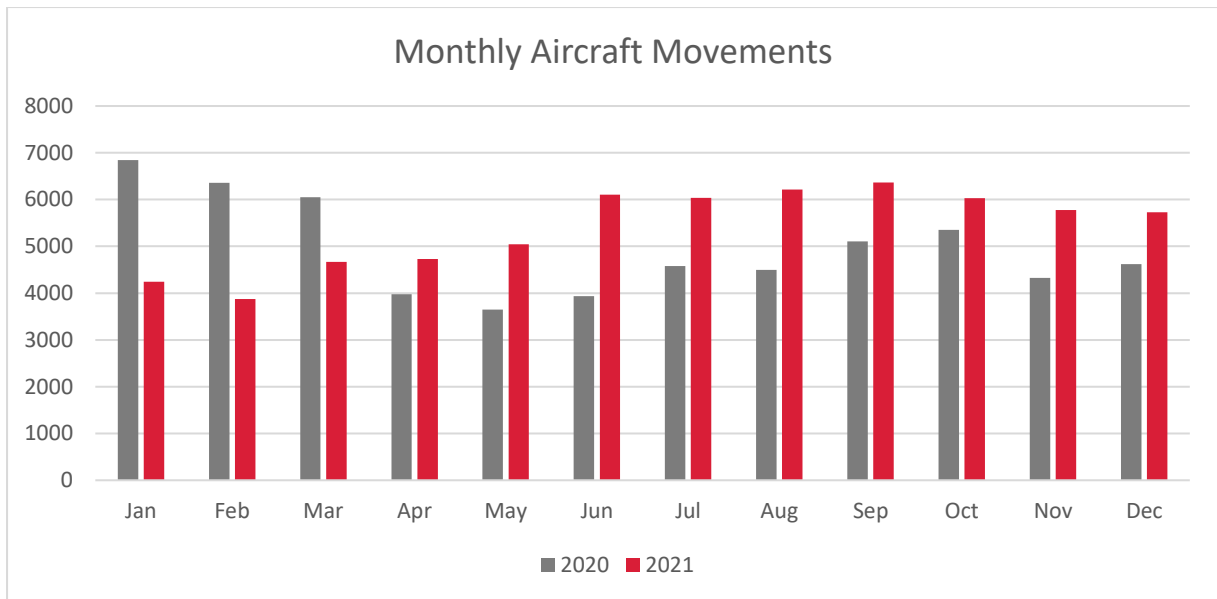


Figure 5 Monthly aircraft movements for Aberdeen Airport in 2020 and 2021 - including both fixed wing and helicopter operations.

Figure 6 shows the average daily movements each month through 2021. The average daily movements are seen to increase through the year, until about September where they level off for the winter. This is a further indication of the recovering status of aviation at Aberdeen Airport post-pandemic.

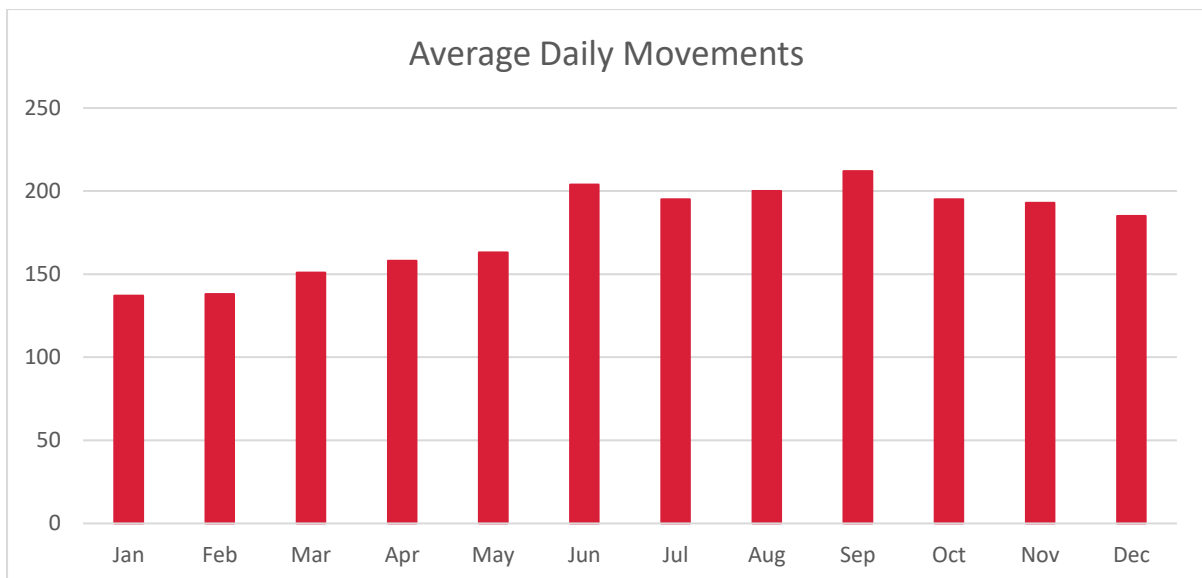


Figure 6 Average daily movements per month at Aberdeen Airport 2021, including both fixed wing and helicopter operations.

Figure 7 highlights the total hourly aircraft movements at Aberdeen Airport. The peak operating hours were between 10:00-11:59, with operations decreasing throughout the day from here. During the hours of 22:30-06:00 there were 1.6% of all airport operations.

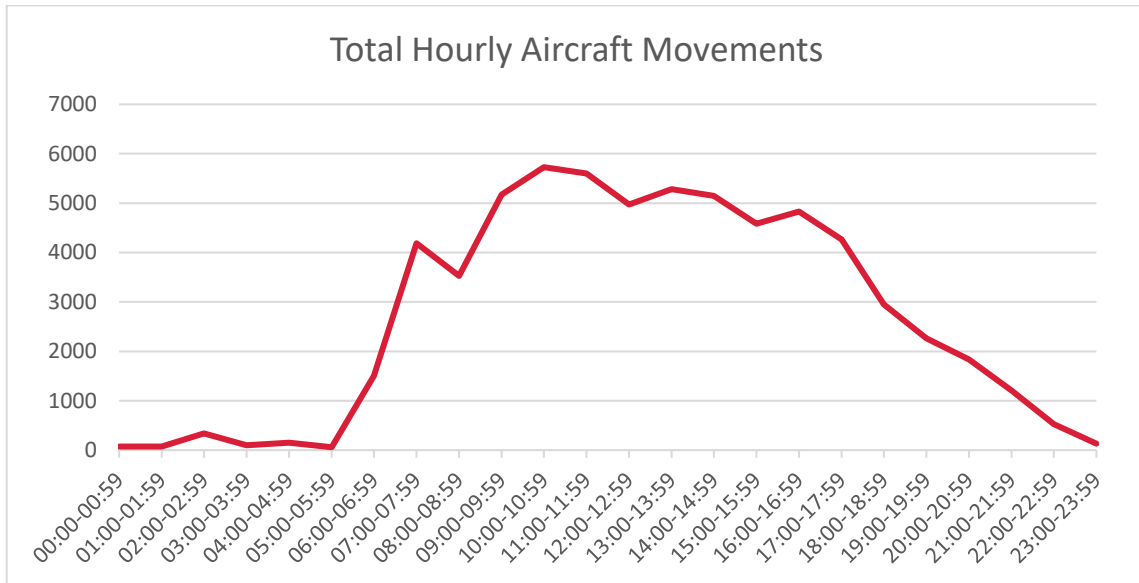


Figure 7 Total hourly aircraft movements for both fixed wing and helicopters at Aberdeen Airport for 2021.

Figure 8 displays the split of hourly movements between helicopters and fixed wing aircraft. Helicopter movements peak between 11:00-11:59 and tail off during the day. Helicopter operations between 22:30-06:00 make up 1.4% of all helicopter movements. This is accounted for by medical and emergency flights. Fixed wing movements had a morning peak between 09:00-10:59 with nearly 5000 movements and an afternoon peak between 16:00-17:49 with also nearly 5000 movements.

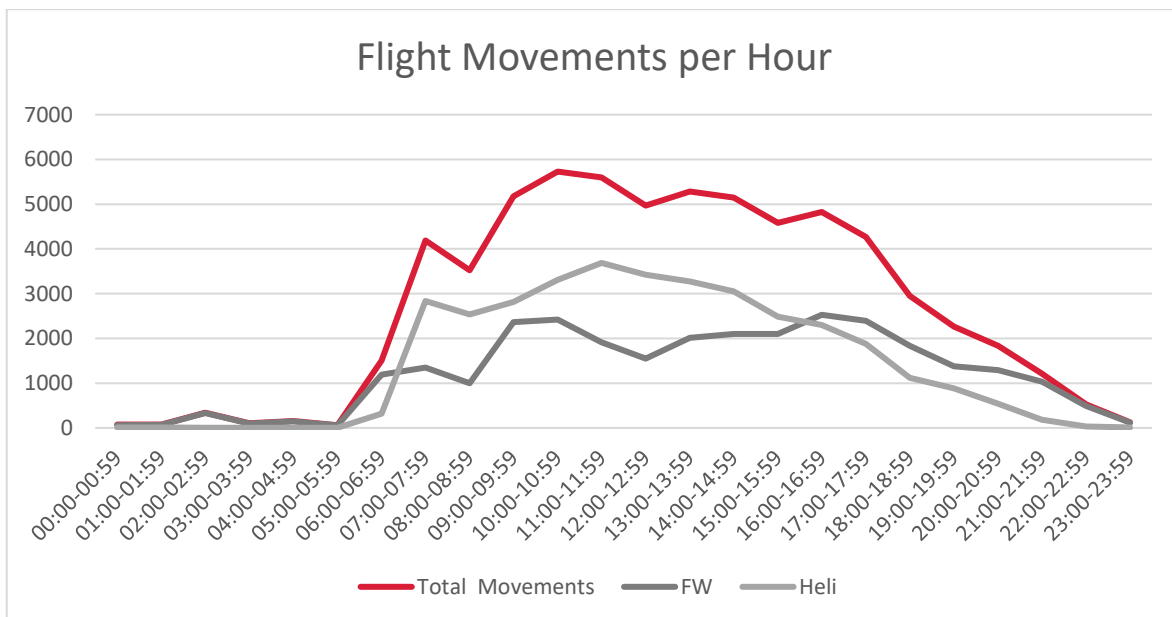


Figure 8 Hourly aircraft movements for Aberdeen Airport for 2021, detailing separate helicopter and fixed wing operations.

Runway Movements

Aberdeen Airport has a unique combination of helicopter and fixed wing operations. To ensure the airfield operates effectively and safely, whilst limiting ground running and taxiing time, we operate four runways – fixed wing operate solely on the main runway whilst helicopters arrive and depart on all four. This is decided under CAA criteria and is assessed through numerous factors, including runway length, slopes and level of rescue and fire fighting protection required.

Figure 9 shows the runway movements for 2021 for all operations. The main Runway 16/34 runs from North-North-West (NNW) to South-South-East (SSE), whilst our other runways run South West to North East (05/23), North West to South East (14/32) and North (36) only. Of these runways, numerous factors can dictate the nature of operations on each. For example, Runway 36 only operates arrival flights to ensure a safe operation due to proximity to buildings and length of the runway. The same rule applies for Runways 23 and 32. Throughout 2021, it can clearly be seen in Figure 9 that Runway 16/34 was used the most, with 93% of movements using them.

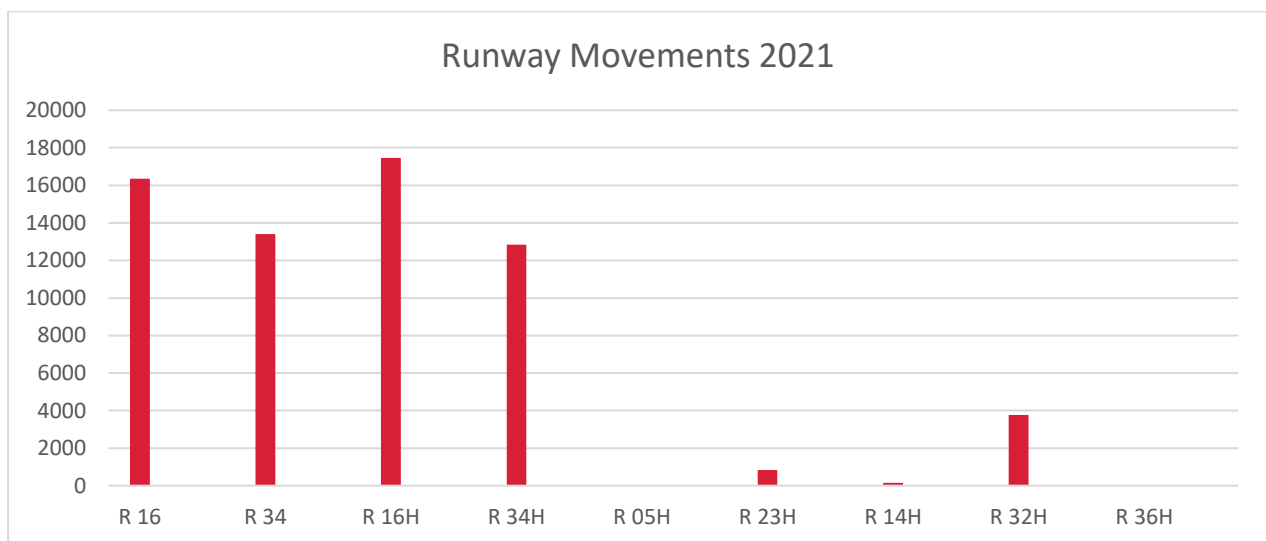


Figure 9 Runway movements for 2021 for all operations. 'H' denotes helicopter movements on corresponding runway.

Operational Noise Abatement Measures

Continuous Descent and Continuous Climb

Aberdeen International Airport has a continuing effort to mitigate noise disturbance to residents, and as such our aircraft are measured against a noise mitigation procedure called Continuous Decent Approach (CDA) for arriving aircraft and Continuous Climb Departure (CCD) for departing aircraft.

CCDs and CDAs are operating techniques used in fixed-wing aircraft and facilitated by Air Traffic Control (ATC). CCD and CDA allow aircraft to follow a flexible, optimum flight path that delivers major environmental and economic benefits – including a reduction in fuel burn, gaseous emissions, noise impacts and fuel costs. Many factors will affect the exact CCD and CDA, including type and weight of aircraft, wind, air temperature and atmospheric pressure. CCD and CDA may not always be possible due to safety reasons, ATC aim to maximise continuous movements to the extent possible, whilst not adversely affecting safety.

Aberdeen International Airport fixed-wing aircraft measure CDA from 12,000 to 4,000ft and CCD from 0-10,000ft. Throughout 2021 ATC managed to ensure Aberdeen International Airport continuously achieved above targets set for both CCD and CDA, as shown in Figure 10.

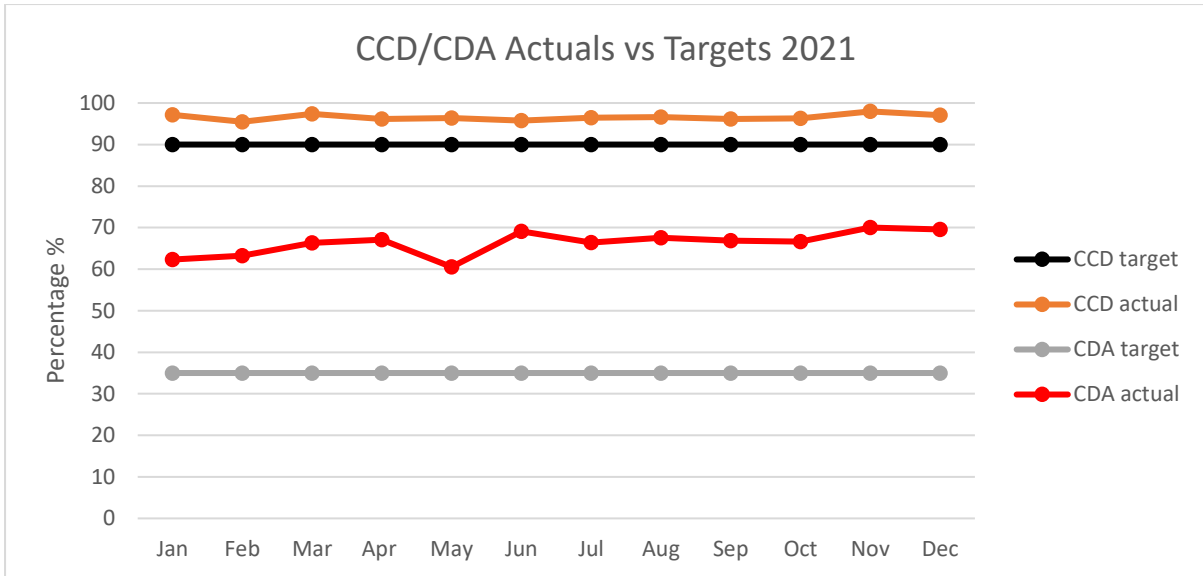


Figure 10 Percentage of flights achieving CCD and CDA monthly at Aberdeen Airport for 2021.

Figure 11 shows a comparison of percentage CCD and CDA achieved between 2020 and 2021. In 2021 Aberdeen Airport saw a 13% increase of flights achieving CDA compared to 2020. In 2021, 96% of flights achieved CCD which was level with 2020.

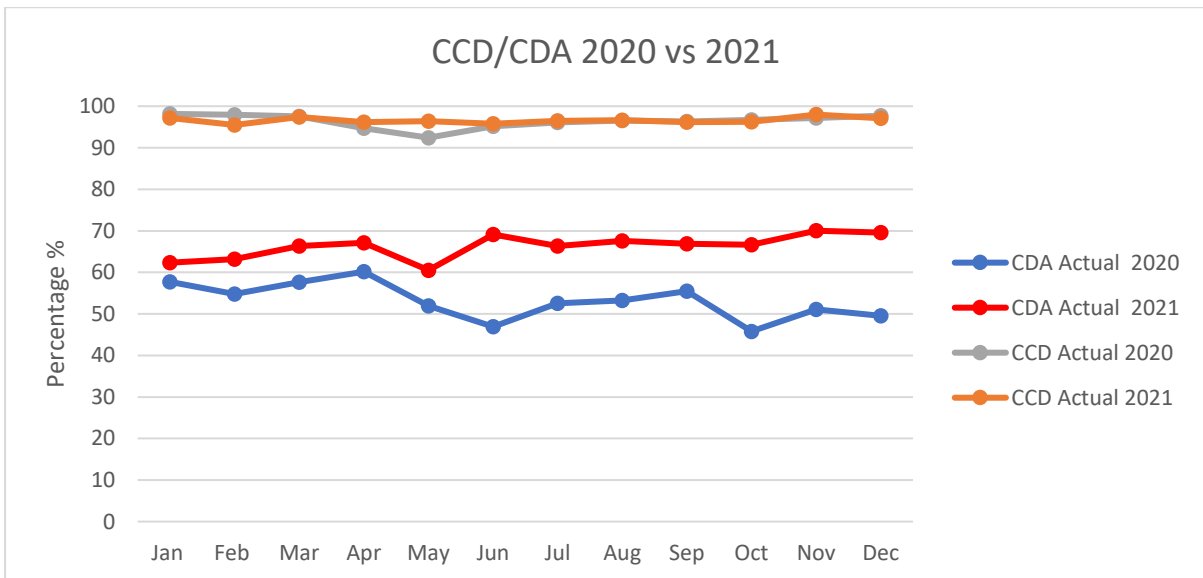


Figure 11 Comparison of percentage CCD and CDA achieved between 2020 and 2021.

Helicopters, due to the differences in landing-take off cycles, in-flight height profiles and operations, cannot complete CCDs or CDAs. Instead, all operators, in cooperation with ATC, work to mitigate noise and fuel burn on a flight-by-flight basis.

Aircraft Engine Testing

Aircraft will routinely test their engines to ensure they are operating correctly. Given the complexity of operations at ABZ, these tests must be requested to Airside Operations and ATC, and include location, duration, and reason for tests. The times and locations of engine runs and hover tests are restricted to ensure noise disturbance is minimised. Engine test runs are not permitted between the hours of 22:30 and 06:00, except in exceptional circumstances, and between 11:00 and 13:00 local time on a Sunday. All low power, idle and start/stop tests are permitted on stands and leased area on the east apron, whilst high power tests are performed on designated areas, to mitigate noise to nearby residents. Throughout 2021 there were no instances of engine testing between 2230-0600, and only 10% of these happening between 0600-0700 (Table 1).

Ground and Auxiliary power units constitute a source of noise emission, and therefore the use of these is restricted and cannot be used out with the times of 0600-2230, unless a battery powered Ground Power Unit (GPU) is utilised. The use of Auxiliary Power Units (APU's) on the east apron is suggested to no more than 45 minutes prior to aircraft departure and no longer than 45 minutes after arrival. Beyond these times a GPU should be utilised. Finally, the use of APU's for maintenance purposes is only permitted where the task cannot be achieved using a GPU.

Table 1 Aberdeen Airport fixed wing engine tests 2021

	0600-0700	0700-2230	2230-0600	Total
Q1 - Jan-Mar	2	59	0	61
Q2 - Apr-Jun	12	74	0	86
Q3 - Jul-Sep	10	91	0	101
Q4 - Oct-Dec	6	53	0	59

Helicopter Air Testing

Air tests are maintenance requirements for all helicopters after any form of repair has taken place, be it engine, rotor blades or electronics. The duration, height, speed, and route of each test will vary depending on the item being tested, the weather conditions, and other air traffic. Air test clearances are at approximately 1500ft and these are often conducted on land to avoid offshore traffic. They can range anywhere between 20 minutes and hours.

Air tests are done sporadically and when required. Tests can be completed once, or they may take place multiple times over multiple days, depending on the nature of the fault. Routine maintenance tests also must be completed after each aircraft has flown a certain number of miles.

There is no requirement at ABZ for these tests to be logged, however, helicopter operators keep this data for maintenance logs and these flights must be completed within commercial helicopter operating hours when and where possible.

Correspondence and Complaints

At Aberdeen International Airport, 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 (abznoise@aairport.com) 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 wide variety of complaint types received by the ABZ Noise complaint e-mail, Aberdeen International Airport works very closely with ATC and Helicopter Operators when resolving them. The noise complaint mailbox deal with all noise and disturbance related complaints, from both fixed-wing and helicopter operations, rather than delegating to specific operators per complaint. Not only does this ensure we have full understanding of all complaints, but it ensures continuity and quality of responses and solutions every time.

Figure 12 shows the number of monthly complaints for years 2020 and 2021. In 2021 there were 150 complaints against 81 in 2020. At the end of 2020 complaints increased and this higher level of complaints maintained through to July 2021, whereafter the number of complaints decreased. In 2021 there was a potential relationship between the number of complaints and the ‘Working From Home’ guidance. The reduction of complaints from August onwards in 2021 coincides with the lifting of lockdown restrictions due to the pandemic. At the end of July and beginning of August most physical distancing guidance was removed in Scotland, meaning many more people could go back to work in offices. The relationship between aircraft movements and noise complaints is shown in Figure 13.

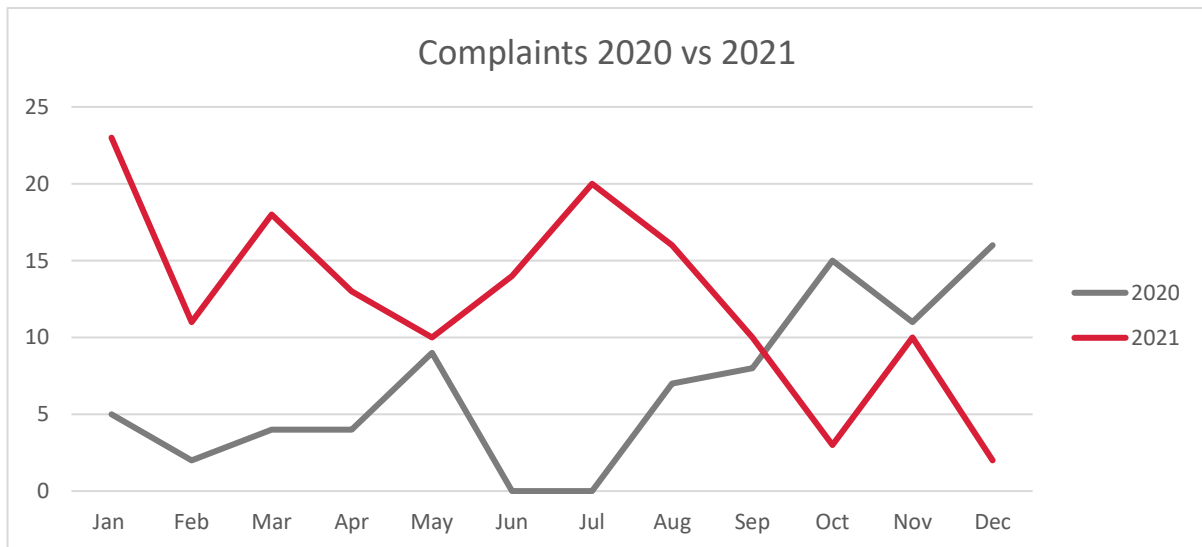


Figure 12 Number of complaints each month in 2020 and 2019. (Note: Mailbox was offline for maintenance during June and July 2020, so no data was recorded for this time).

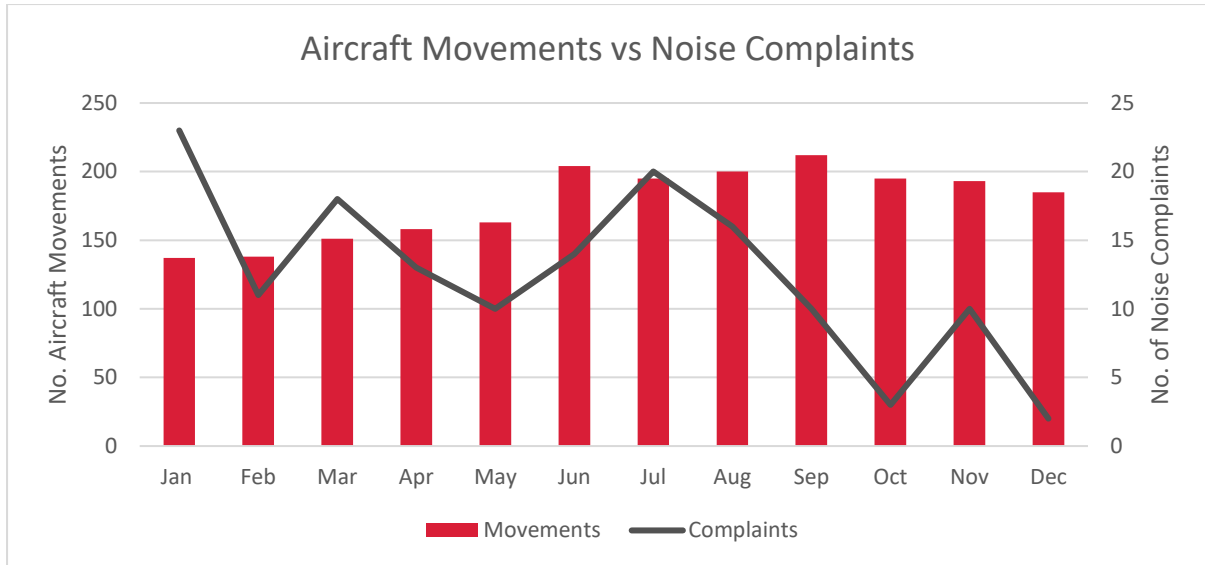


Figure 13 Number of noise complaints against number of aircraft movements - including both fixed wing and helicopter operations.

Figure 14 shows a distribution of noise complaints per area. Noise correspondence and complaints came from a widespread area with 57% complaints coming from Dyce, Bridge of Don and Stoneywood. Both Dyce and Stoneywood are adjacent to the East side of the airfield, so will be most susceptible to helicopter arrival and departure noise. Bridge of Don, although further afield – approximately 6km in a direct line from the airport – is on the offshore oil and gas routes for many of the helicopters. The remaining 43% of complaints are from 12 different areas across Aberdeen city and shire (Fig. 14). With reasons for complaints being varied, including the mail flight and helicopter training exercises.

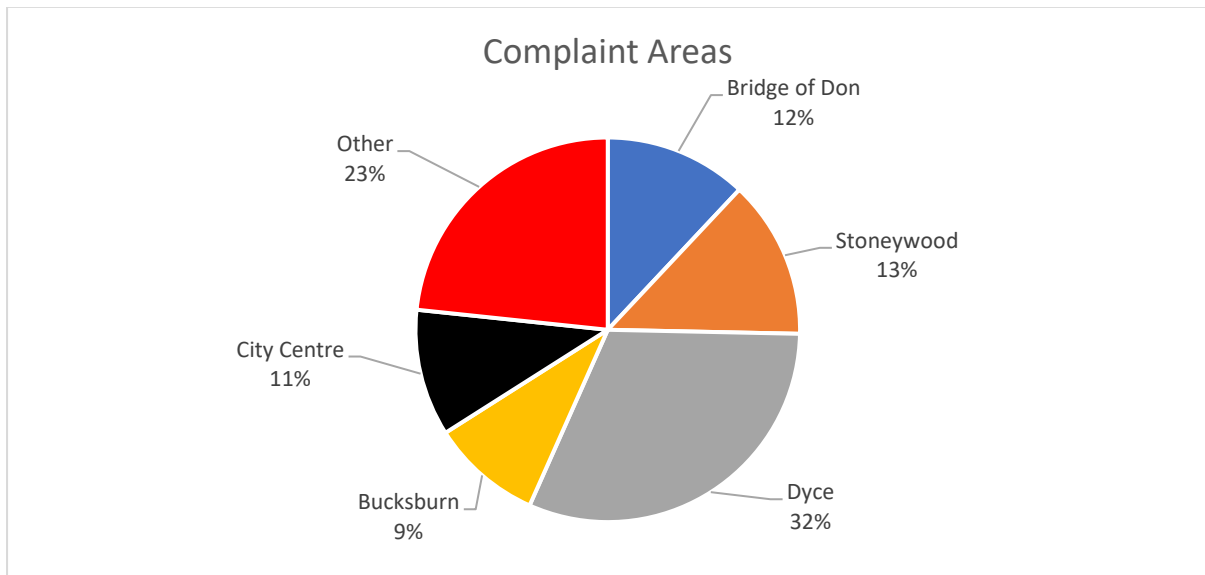


Figure 14 Percentage of complaints from specific areas. Any areas with <5% of total complaints were included in 'Other'.

Figure 15 shows a breakdown of number of complaints into helicopter-related or fixed-wing-related. Helicopters accounted for nearly 63% of all complaints, with fixed wing being only 18%. The remainder of complaints were related to Aberdeen Royal Infirmary aircraft and other miscellaneous noise. Every month in 2021, except for October and December, saw a greater number of complaints towards helicopters compared to fixed-wing aircraft.

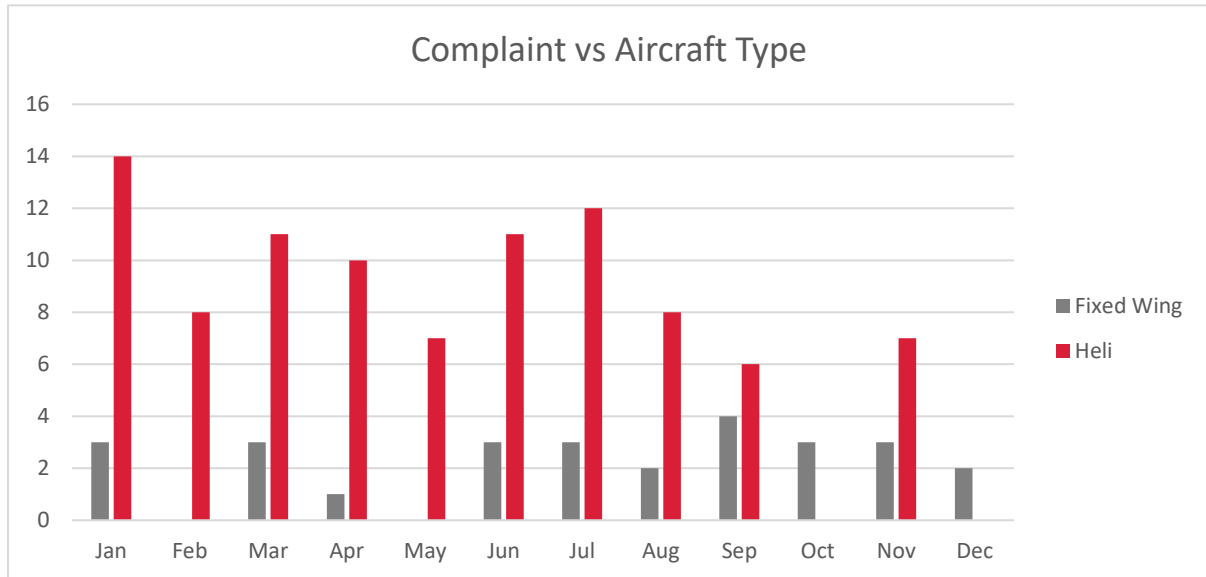


Figure 15 Number of complaints related to fixed wing or helicopters each month.

Figure 16 shows the nature of complaints. The two key themes are perceived low-flying and noise. Noise was seen to be the greater cause of complaints most months. With only May, July and September having equal number of low flying complaints. June was the only month to see more low flying complaints compared to noise complaints.

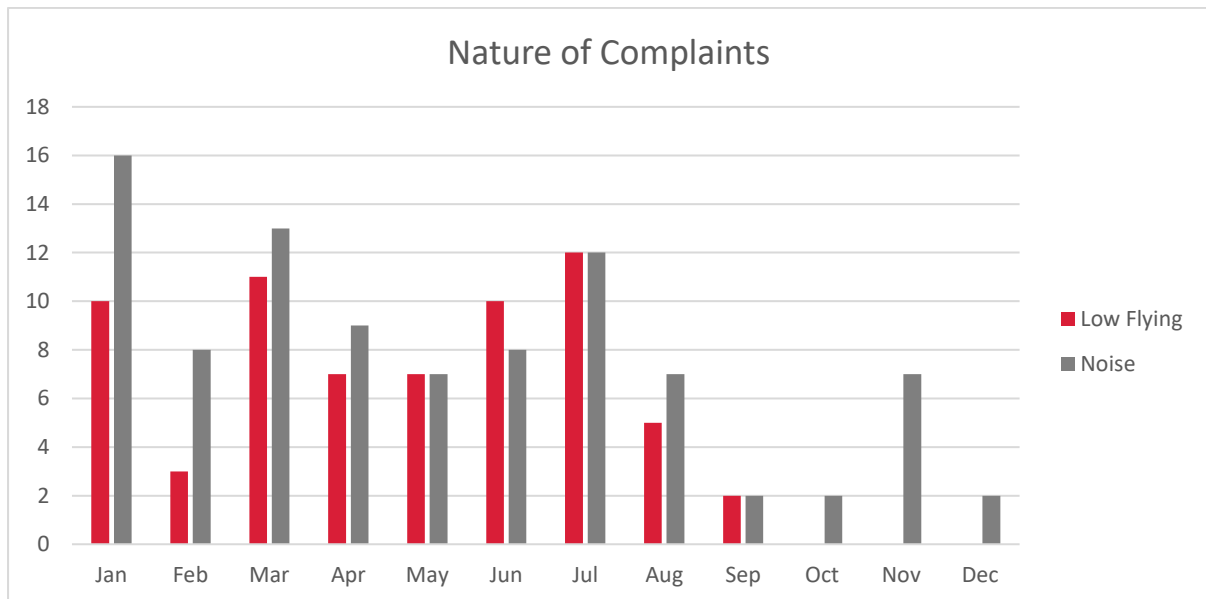


Figure 16 Number of complaints related to 'Noise' and 'Low Flying' each month.

Community Liaison

Aberdeen Consultative Committee

Aberdeen International Airport hosts the Aberdeen International Airport Consultative Committee (AIACC) – a regular, independent forum for the management of the airport to discuss matters related to the airport operations and developments with a range of representatives of the wider Aberdeen City and Shire communities. All airports within the UK are required under civil aviation law to have a recognised means of consultation with the communities affected by their operations. Most airports do this through an airport consultative committee, as we do in Aberdeen.

The Aberdeen Committee has a long history, having been set up in 1953, when the erstwhile War Office invited the Clerk of the former Aberdeenshire County Council to establish a consultative committee. Though the committee has no executive powers within the airport it has an advisory and consultative capacity on issues ranging from the impact of noise arising from operations on the airfield to the role of the airport in the economic development of the City and Shire. More information on this can be found at our website: [Airport Consultative Committee | Aberdeen Airport](#)

Noise impacts are a standing item on the AIACC agenda.

ABZ Noise Working Group

All at Aberdeen International Airport, both those directly employed and third-party operators, work consistently to be better neighbours and strive for improved practices to those impacted by airport activities. As part of the ongoing drive to reduce noise impacts, ABZ has an internal Noise Working Group, with representatives from Aberdeen Airport, Air Traffic Control, and all helicopter operators.

This group was inaugurated in December 2020 and communicates quarterly to highlight areas of concern, understand, and share best practices, and to become industry leaders in noise mitigation and cooperation. During its operations, this group has aided in reducing noise to rural communities, educating and training staff on noise issues, and provide assurance to complaints.

The unique operations at ABZ requires a more complex means of noise management. Aberdeen International Fixed-Wing Operations is currently undergoing Air Space Change consultation, noise contour mapping and plans for advanced tracking systems. However rotary aircraft have different flight routes and legal obligations, and the change in this aspect of operations is longer-term.

Noise Action Plan

Aberdeen International Airport 2018-2023 Noise Action Plan	
NAP Commitment	Progress
We will develop, publish, and implement a policy prioritising airlines operating Chapter 4 and Chapter 14 aircraft when introducing new business to Aberdeen.	In Progress and Ongoing
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 on hold during the pandemic whilst the recovery route of the industry remains unclear
We will work with other helicopter operating airports to understand and share best practice, to provide learning opportunities for noise reduction at the airport.	In Progress and Ongoing – We are working on this through our Noise Group
We will investigate the option of installing Fixed Electrical Ground Power (FEGP) to reduce noise and air quality impacts.	We have accounted for this as part of our AGS Airports Sustainability Strategy
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 Aberdeen International Airport.	We have a good relationship with local authorities and discuss plans with them
We will develop and implement an updated Noise Insulation Policy to mitigate noise for residents most affected by aircraft noise in line with UK Airspace Policy.	Delayed due to the pandemic.
We will review helicopter noise routes and flying procedures to maximise the reduction and impact of noise on residential properties.	ACP in progress, implementation TBC
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 Approaches (CDA) and Continuous Climb Departure and (CCD) where possible through forums such as Flight Ops Safety Committee and other communication events.	Continually reviewed and developed through these forums
Continue to engage with our aviation partners through FLOPSC to seek to improve adherence to noise standards.	FLOPSC meets regularly and has continued throughout the pandemic
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 45 minutes. We will investigate any complaints received from ground running activity and revisit our policies if appropriate.	Complete and Ongoing
We will review the current locations utilised for the ground running of aircraft to reduce noise impact on local communities.	Completed in 2020 and will be reviewed no later than 2023
We will review our operational procedures enhance our noise management systems including the effectiveness of east side protocols ensuring aircraft safety is considered always.	Completed in 2020 and will be reviewed no later than 2023
Operating Restrictions	

<p>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.</p>	<p>In Progress and Ongoing</p>
<p>Working with Local Communities</p>	
<p>We will discuss noise issues and report on our progress against the Noise Action Plan under a standing agenda item of the Consultative Committee.</p>	<p>Complete and Ongoing. We have since created the Noise Working Group</p>
<p>We will carefully consider any best practice guidance published by ICCAN on information and communication requirements.</p>	<p>ICCAN disbanded Sept 2021</p>
<p>We will continue to operate a dedicated online noise complaint system. We will log all complaints, seek to respond to 95% of complaints and enquiries within 5 working days and publish our performance at the Airport Consultative Committee and community newsletter.</p>	<p>Complete and Ongoing</p>
<p>We will look to establish a local noise group with helicopter companies and parties interested in progressing noise issues.</p>	<p>Complete and Ongoing. This forum is now in place</p>