



Annual Monitoring Report

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Foreword

Welcome to the Annual Monitoring report (AMR). The AMR brings together key reports, from across Bristol Airport's operation during 2019. This report also highlights the key areas of improvement the Airport is undertaking to continuously develop and deliver against its sustainability ambitions.



We have been publishing the AMR for over a decade as part of our ongoing commitment to engagement and transparency within our community. This report tells the story of our year – one of high achievement with record breaking passenger numbers, but importantly continued progress in reducing the impact of noise, carbon and waste in our operation.

We ended 2019 looking forward to another year of sustained growth and continuing to meet and exceed our sustainability challenges. Sadly, as we now know, another huge challenge was to emerge in the shape of COVID-19.

The short and medium-term impact on the aviation industry and what it means for Bristol Airport is difficult to determine, although rest assured our long-term ambitions remain. Bristol Airport is a critical gateway and employment generator within the region and will act as a catalyst to regenerating the economy and deliver sustainable growth in a post-COVID-19 world.

I feel incredibly proud to be leading a dedicated team who pride themselves on delivering a safe, secure and great experience for our customers while working hard to deliver a lower carbon future. We accept that the recovery from COVID-19 and the future growth in air travel needs to be undertaken in a responsible and balanced way.

We have already demonstrated that we can reduce our airport carbon footprint with a reduction in carbon emissions of 12% in the last 4 years and the airport itself will be carbon neutral by 2025. We are taking a leading position by also working towards being carbon net zero (with no offsetting) by 2050. As a responsible business, this is the right thing to do and we are committed to delivering our ambition.

Our broader sustainability performance is also strong with zero waste going to landfill (99%), underpinned by over 50% of our waste being recycled. We continue to champion innovation and

change becoming the first airport to implement a paper cup recycling scheme across our food and beverage outlets and introducing the first compostable security bags.

We continue to invest significantly in local community projects, with a focus on supporting our immediate neighbours. More widely, we want to drive growth in the South West and increase the rate at which jobs are created, replacing those lost during the COVID-19 crisis.

We are committed to delivering a sustainable future we can all be proud of and in doing so, continuing to ensure amazing journeys start here for millions of passengers every year.

A stylized, handwritten signature in white ink, likely belonging to Dave Lees.

Dave Lees
Chief Executive Officer

Summary and key year highlights

- Total¹ passenger numbers increased by 3.1 % to 8,903,718.
- Aircraft movements fell by 9.68 % to 69,534.
- Amsterdam was the most popular destination from Bristol.
- Noise monitoring indicates that the noise climate at the noise monitors is consistent. The peak departure noise levels recorded were below the noise infringement limits and comparable to 2018 levels.
- The area of the 57 dB(A) Leq 16hr noise contour for summer 2020, at the time of writing, is predicted to be 10.4 sq. km, falling compared to the 2019 contour and remains within the permitted noise envelope.
- 451 complaints about aircraft noise were recorded in 2019 an increase from 379 in 2018.
- During the summer season there were 2,933 aircraft movements using 1,408.5 quota count points, during the night quota period of 23:30 to 06:00. A further 8,371 aircraft movements took place during the 'shoulder periods' of 06:00 to 07:00 and 23:00 to 23:30.
- Over 979,667 journeys were undertaken on the Bristol Flyer Airport Express bus service to Bristol, an increase of 8.9 % on the previous year. Around 13.8 % of passengers used public transport in 2019.
- The Airport was recognised in the annual Travelwest Awards, being awarded 'Most Improved Workplace' for sustainable transport in 2019.
- The air quality monitoring programme shows air quality levels at the Airport remain within Government Air Quality Objectives.
- In 2019, there has been a 10% decrease in per passenger carbon emissions compared to 2018.
- Over 99 % of general waste generated at the Airport was recycled or reprocessed and diverted from landfill, remaining consistent with 99 % in 2018.
- The number of people working could not be compiled to the unprecedented COVID-19 outbreak in early 2020.
- In 2019, the Fund provided grants totalling over £221,513 to local projects and to local residents through noise insulation grants. In addition, over £20,000 was raised by airport employees and customers for the Great Western Air Ambulance service.
- Bristol Airport was awarded with ISO 14001 : 2015 certification for its Environmental Management System in 2019, a first for the airport.



¹ Includes all terminal, transit and infant passengers.

Aircraft movements

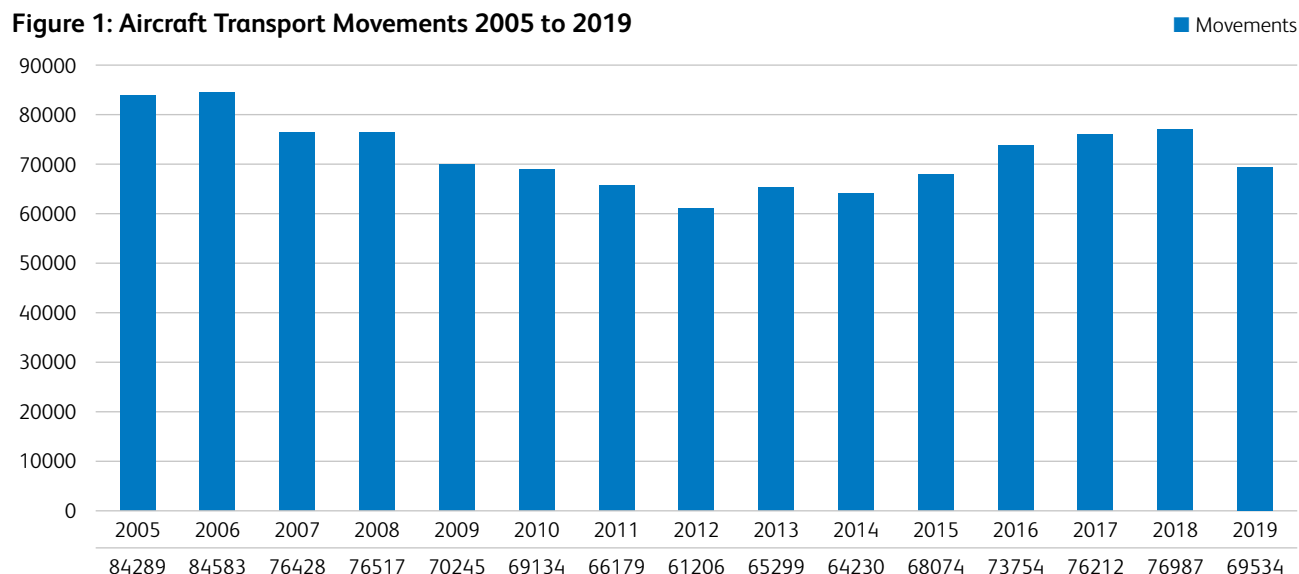
There was a total of 69,534 Aircraft Transport Movements (ATMs) in 2019 (compared with 76,987² in 2018). The almost 10% reduction in movements was due mainly to two airlines, Fly BMI and Thomas Cook, ceasing operation in 2019. The breakdown of these ATMs is provided in Table 1 below. This data is provisional Bristol Airport data and therefore may differ to data published by the CAA.³ Aircraft Transport Movements includes all flights rather than aircraft movements which mainly reflects scheduled and charter flights only.

Table 1: Aircraft Transport Movements in 2018 and 2019

Air Transport Movements Categories	2019	2018	Change 2018 to 2019
Cargo	0	0	0%
Scheduled domestic passenger aircraft	11,100	10,589	4.83%
Scheduled international passenger aircraft	43,355	47,513	-8.75%
Charter domestic passenger aircraft	33	1,289	-97.44%
Charter international passenger aircraft	6,618	6,112	8.28%
Positioning flights	-	1,324	-
Other (incl. flying club, private charter)	8,428	10,160	-17.05%
Total ATMs	69,534	76,987	-9.68%

The number of ATMs for the past fifteen years are shown in Figure 1.

Figure 1: Aircraft Transport Movements 2005 to 2019



² Includes Military and Helicopter movements

³ CAA Air Transport data for 2019 was 69,434 compared to 69,534 reported (https://www.caa.co.uk/uploadedFiles/CAA/Content/Standard_Content/Data_and_analysis/Datasets/Airport_stats/Airport_data_2019_annual/Table_03_1_Aircraft_Movements.pdf)

Aircraft types

A breakdown of ATMs by aircraft type that used Bristol Airport during 2019 is set out in Table 2.

The difference between totals in Table 2 and Table 1 is due to the availability of data when breaking down to aircraft type level.

Table 2: ATMs by aircraft type

Aircraft Types	No. of movements
Helicopter	1742
Aérospatiale Gazelle SA-341/342	1
AgustaWestland AW109	17
AgustaWestland AW139	8
AgustaWestland AW169	2
AGUSTAWESTLAND LYNX WILDCAT	2
Airbus Helicopter H145	2
Airbus Helicopters AS365 Dauphin	4
Airbus Helicopters Eurocopter AS550 Fennec	3
Airbus Helicopters H155	3
Bell 206	15
Boeing CHINOOK 114/234/414	6
Boeing EC135A	431
Eurocopter - EC135	1134
Eurocopter - EC155	1
Eurocopter AS-355 ECUREUIL 2	2
Eurocopter AS-365 DAUPHIN 2	74
Eurocopter AS365 MB Panther	10
Eurocopter EC130	17
MD 901 Explorer	4
Robinson RAVEN II R-44	2
Sikorsky S-76	6
Jet	57744
Boeing 787-9 Dreamliner	2
Airbus 139	161
Airbus 319	13385
Airbus 320	10928
Airbus 320 neo	5418
Airbus 320 WINGLET	2625
Airbus 321	288
Airbus 321 neo	432
Airbus 321 WINGLET	1768
Airbus 365	2
Airbus A330-343	2
Avro RJ-100	4
BAe-125 (HAWKER 800)	6
BEECH Beechjet 400	20
Beechcraft/Raytheon Premier 1	7

Aircraft Types	No. of movements
Boeing 737-300	4
Boeing 737-3L9	2
Boeing 737-400	29
Boeing 737-500	10
Boeing 737-600	2
Boeing 737-700	6
Boeing 737-700 WINGLET	165
Boeing 737-800	1411
Boeing 737-800 WINGLET	12443
Boeing 757-200	236
Boeing 757-200 WINGLET	812
Boeing 767-300	2
Boeing 787-8 Dreamliner	418
Boeing 787-9 Dreamliner	11
Bomardier Challenger CL601-A3 (600 Series)	19
Bombardier Challenger 850	6
Bombardier Challenger CL300	21
Bombardier CRJ200	13
Bombardier CRJ-900	266
Bombardier Global 5000	6
Bombardier Global Express	21
British Aerospace 146	5
British Aerospace BAE 146-200	9
Cessena Citation 525	600
Cessena Citation C25B CJ2	1
Cessena Citation CJ2	1
Cessena Citation Excel 560X	10
Cessena Citation II C550	18
Cessna CITATION 10	3
Cessna Citation 25A	44
Cessna Citation 525B CJ3	6
Cessna Citation 560 5 Ultra	53
Cessna Citation 56X	78
Cessna Citation 680 SOVEREIGN	31
Cessna Citation CJ4-525C	30
Cessna Citation Latitude (Model 680A)	12
Cessna Citation Mustang	69
Dassault Falcon 50	6
Dassult Falcon 2000	195

Aircraft Types	No. of movements
De Havilland DOMINIE HS-125	2
Eclipse Aerospace EA500	2
Embraer 145	2276
Embraer 170	81
Embraer 175	272
Embraer 190	2178
Embraer 195	44
Embraer E175	2
Embraer ERJ-135LR	11
Embraer Legacy 450	2
Embraer Phenom 100	33
Embraer Phenom 300	339
Eurofighter Typhoon	2
FALCON 10 MYSTERE	2
FALCON 20 (FAN JET FALCON)	2
Falcon 7X	23
Falcon 900	11
Fokker 100	2
General Dynamics F-16AM Fighting Falcon	1
Gulfstream 1125 ASTRA	2
Gulfstream 4	3
Gulfstream 5	26
Gulfstream 550	3
Gulfstream G100	1
Gulfstream G650	106
Honda HA-420 HondaJet	4
Learjet 31	23
Learjet 35	24
Learjet 45	110
Learjet 55	1
Learjet 55 LONGHORN	6
Learjet 60	18
Learjet 75	6
McDonnell Douglas MD-82	2
Panavia Tornado	2
Pilatus PC-24	2
Raytheon BAe-125 (SERIES 1000)	4

Prop 10003

2000 Rockwell Commander 114B	2
Airbus A400M Atlas	10
ATR 42-300	259
ATR 42-500	201
ATR 72 600	3492
Beechcraft 200 SUPER KING AIR	951
Beechcraft Bonanza BE-35 V-TAIL	2
Beechcraft King Air 200	51
Beechcraft King Air BE-90	10
Beechcraft Super King Air 200	3

Aircraft Types	No. of movements
Beechcraft Super King Air 300	1
Beechcraft Super King Air 350	2
Britten-Norman BN2T Islander	19
Cessna 172 SKYHAWK Mescalero	1506
Cessna Citation Mustang 510	8
Cessna 152 AEROBAT	4
Cessna 182 SKYLINE	74
Cessna 421 GOLDEN EAGLE	4
Cessna F150L	7
Cirrus SR-22	87
Dassault Dash 8-400 series	18
De Havilland Canada DHC-4 CARIBOU	5
Diamond DA-42 Twin Star	9
Diamond DA62	32
Dornier Luftfahrt 328	3
Fairchild Swearingen METROLINER 2/A	2
Fokker F-50	2
GROB G-115	2
Grumman American AA-5	2
Gulfstream 1/1C	4
Partenavia/Vulcanair PA-68	4
Piaggio P180 Avanti	16
Pilatus PC-12	23
Pilatus PC-12/47E	5
Piper J-3 CUB/L-4 GRASSHOPPER	2
Piper P28A CHEROKEE WARRIOR	163
Piper PA-28 CHEROKEE	2622
Piper PA-28R 180/200/201 CHEROKEE	4
Piper PA-28RT-201T TURBO ARROW 4	34
PIPER PA-31	1
Piper PA-31-350 CHIEFTAN/MOJAVE/NAVAJO T1	8
Piper PA32	2
Piper PA-32 CHEROKEE	
SIX/SARATOGA/TURBO SARATOGA	13
Piper PA-34 SENECA	91
Piper PA-46 MALIBU MIRAGE	8
Reims-Cessna F-406 CARAVAN II	2
Robin DR400	1
SAAB 2000	46
SAAB 340 - SF34/SF340A/B	4
Slingsby T67M260	2
Socata Tampico 9	6
Socata TB-20 TRINIDAD	2
Socata TBM-850	6
Socata TBM900	2
Socata TB-10 TOBAGO	134
Socata TBM-700	34
Grand Total	69489

Passenger statistics

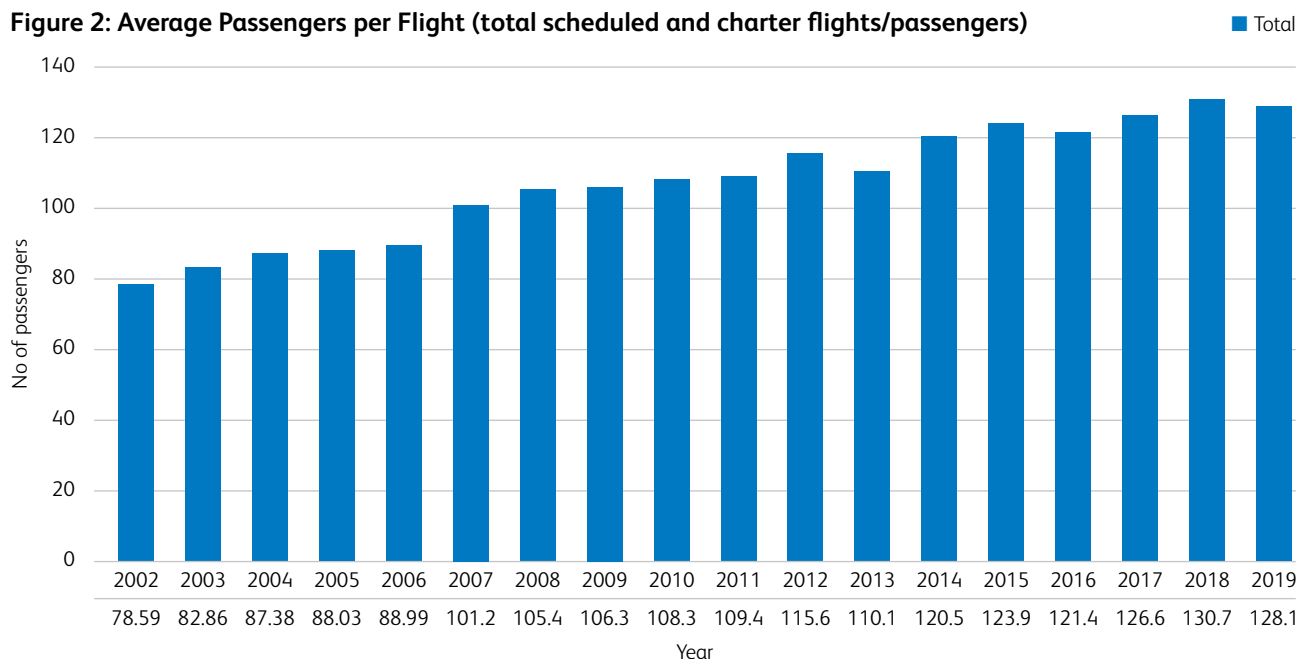
The number of passengers travelling through Bristol Airport increased by 3.1 % in 2019. Statistics related to passenger numbers are provided in Table 3. The breakdown of data for itemised infants and transit passengers for 2018 was not available, so the % difference cannot be applied against these categories.

Table 3: Passenger statistics

Passenger Categories	2019	2018	Change
Scheduled Domestic	1,365,362	1,331,183	2.57 %
Scheduled International	6,297,344	6,142,435	2.52 %
Charter Domestic	1,024	9,603	-89.34 %
Charter International	1,211,260	1,075,764	12.60 %
Other	28,728	73,741	-61.04 %
Infants	0	0	-
Transit	0	0	-
Total	8,903,718	8,632,726	3.14%

The average number of terminal passengers per commercial passenger carrying aircraft is shown in Figure 2.

Figure 2: Average Passengers per Flight (total scheduled and charter flights/passengers)



It is important to note that due to differences in the way some flights are recorded, passenger and aircraft movement figures generated by Bristol Airport may contain small variances when compared to those reported by the UK Civil Aviation Authority (CAA).

Passenger routes

Table 4 lists the top ten most popular routes from Bristol Airport during 2019 and 2018. These are represented in the map below (Figure 3).

Figure 3: Map detailing the 10 ten destinations in 2019

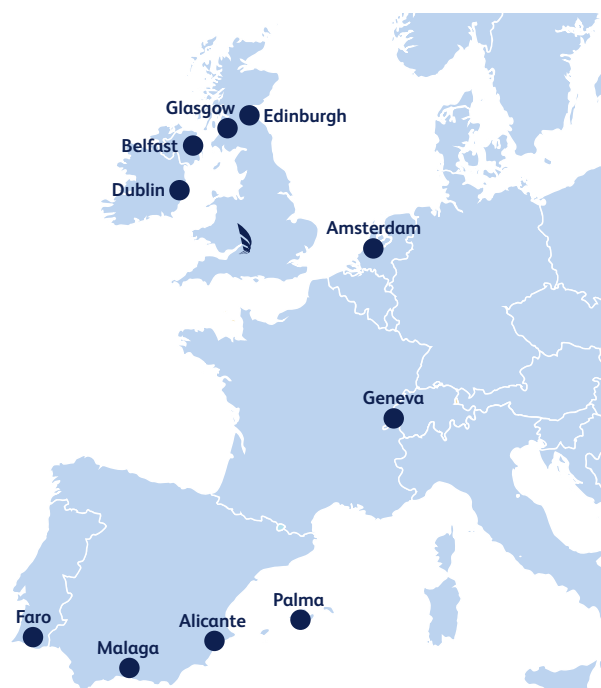


Table 4: Top ten most popular routes 2019 and 2018

Destination	2019 Passengers	2018 Passengers
Amsterdam	455,098	431,311
Dublin	419,583	402,807
Edinburgh	395,290	397,608
Alicante	363,608	339,870
Palma	359,609	352,502
Malaga	343,041	354,414
Glasgow	320,970	310,425
Faro	304,600	298,675
Belfast	275,882	256,239
Geneva	214,614	219,383

Runway usage

The runway at Bristol Airport is aligned east/west. The runway designation is derived from the compass bearing of each direction. The westerly runway is known as runway 27 and the easterly runway as runway 09. Runway use is dictated by wind direction. The percentage of movements by direction since 2001 is provided in Table 5. The average usage over this period has been 77 % for Runway 27 and 23 % for Runway 09.

Table 5: Runway usage 2001 to 2019

Year	Westerly (27)	Easterly (09)
2001	79%	21%
2002	77%	23%
2003	65%	35%
2004	82%	18%
2005	71%	29%
2006	75%	25%
2007	79%	21%
2008	84%	16%
2009	80%	20%
2010	82%	18%

Year	Westerly (27)	Easterly (09)
2011	83%	17%
2012	86%	14%
2013	75%	25%
2014	67%	33%
2015	76%	24%
2016	86%	14%
2017	80%	20%
2018	64%	36%
2019	73%	27%
Average	77%	23%



Flight routings

Indicative flight routes for easterly and westerly operations are provided in Appendix A.

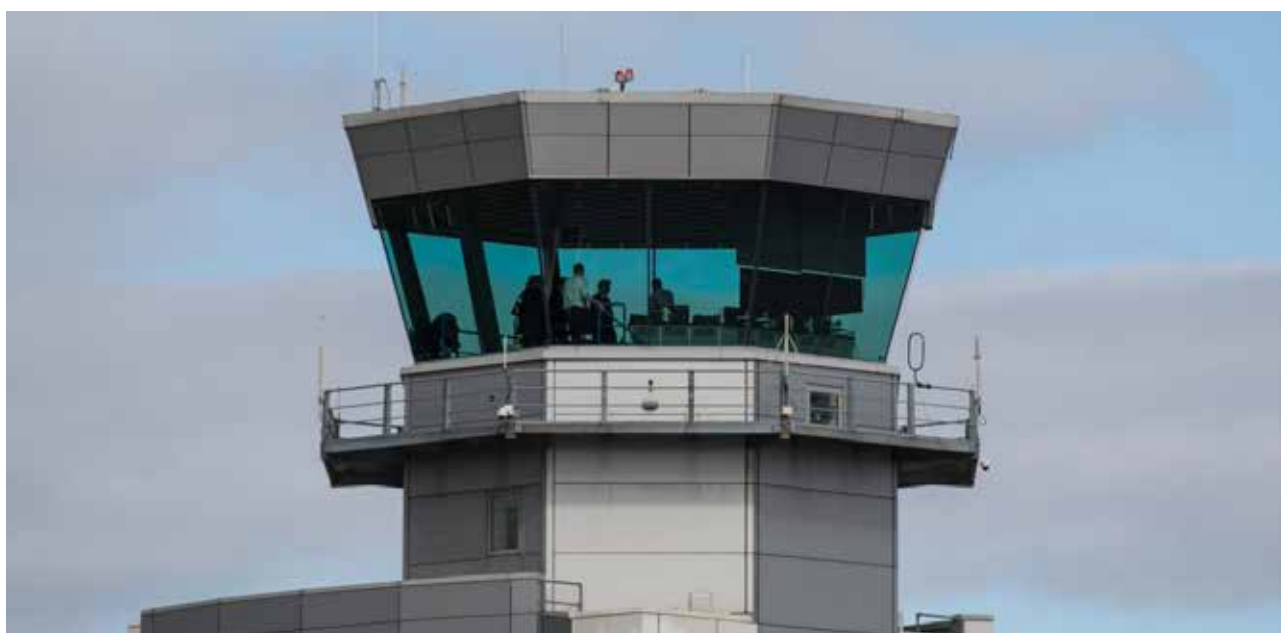
Flight routes are shown as 3km swathes for departing aircraft on Noise Preferential Routings (NPRs) and arrivals which are established on final approach. The NPRs are to be flown by all departing aircraft of more than 5700 kg maximum certified weight, unless otherwise instructed by Air Traffic Control (ATC) or unless deviations are required in the interests of safety and/or weather. The NPR requires aircraft to climb straight ahead for 4.5 nautical miles when departing on runway 27 and 4.7 nautical miles on runway 09 and to be no lower than 3,000ft above sea level before commencing the turn. The obligations of the NPR cease when an altitude of 4,000ft above sea level has been reached.

Bristol Airport's noise and track keeping system, ANOMS, is used to monitor adherence to the NPRs and to record continuous descent approaches. Aircraft tracks can be downloaded from the airports website and viewed using Google Earth. As part of the Airport's Noise Action Plan a new online flight tracking system was due to be available for public use on the Airport's website in 2019. However this has been delayed due to finalising of the data feed, and to ensure the shortest delay possible when presenting the information. This work has now been completed but the impact of COVID-19 during the first two quarters of 2020 means the flight tracking system will be published later in 2020.

Bristol Airport works with the airlines and the air traffic services provider, NATS, to promote the use of continuous descent approaches (CDAs). In contrast to conventional airport approaches, aircraft following CDAs descend continuously from

as high as possible. A continuous descent requires less engine thrust than level flights and provides additional noise attenuation by keeping the aircraft higher for longer. In 2019, 80 % of arrivals were undertaken using the CDA operating technique, which is comparable with the previous year. An arrival is classified as a CDA if it is below an altitude of 6000ft, no level flight, or one phase of level flight is no longer than 2.5 nautical miles. CDA performance is regularly reviewed with the airlines at the Flight Operations and Safety Committee to improve performance. In 2019, over 99 % of monitored departures conformed to the NPRs which demonstrates our continued high rate of compliance in this area.

Bristol Airport reserves the right to levy a surcharge against any operator who, on a persistent basis, fails to operate in-line with the prescribed NPRs as recorded by ANOMS. No such surcharges were levied in 2019.



Noise monitoring

Bristol Airport continually analyses aircraft noise using three monitors located near Felton, Winford and Congresbury. The Congresbury and Winford (known as Littleton Hill) monitors are positioned in accordance with ICAO standards for monitoring noise from departing aircraft. They are positioned 6,500m from the start of roll from Runway 09 (Littleton Hill) and Runway 27 (Congresbury).

Aircraft using Bristol Airport are required to be operated in the quietest possible manner. Departing aircraft exceeding 90 dB(A) by day (0600 to 2330 local time) and 85 dB(A) by night (2331 to 0559 local time) at the Congresbury and Littleton Hill noise monitoring points will be subject to a penalty as set out in the Airport Fees and Charges. A summary of data relating to departing aircraft from the noise monitoring undertaken in 2019 is provided in Table 6 with 2018 data represented in brackets. All departing aircraft complied with the noise infringement limits and no penalties were levied in 2019.

Table 6: Noise monitoring - departing aircraft from Congresbury and Littleton Hill noise monitoring points (2018 data in brackets)

Month	Peak departures noise level Lmax dB(A)		Average departures noise level
	Runway 27	Runway 09	Runways 09 and 27
January	78.8 (79.4)	77.5 (81.0)	73.8 (73.9)
February	79.1 (79.7)	75.8 (81.7)	73.1 (73.4)
March	78.5 (79.7)	79.8 (82.9)	73.3 (74.0)
April	79.1 (79.9)	81.6 (81.2)	74.6 (74.0)
May	79.3 (79.4)	80.5 (81.1)	74.4 (74.0)
June	80.1 (79.8)	81.3 (81.3)	74.2 (74.1)
July	80.0 (81.7)	81.2 (81.0)	73.9 (73.7)
August	80.7 (80.6)	80.6 (81.4)	74.0 (74.2)
September	80.3 (80.2)	80.8 (80.6)	74.1 (73.8)
October	79.8 (80.2)	82.3 (80.5)	73.8 (73.3)
November	80.0 (79.1)	81.4 (82.3)	73.8 (73.4)
December	80.0 (80.3)	81.7 (79.9)	73.7 (73.0)

The noise climate recorded at the three noise monitors is provided in Table 7.

Table 7: Noise climate

	Congresbury		Littleton Hill		Felton	
	2019	2018	2019	2018	2019	2018
Month	Leq dB(A)	Leq dB(A)	Leq dB(A)	Leq dB(A)	Leq dB(A)	Leq dB(A)
January	61.5	62.4	55.8	59.5	59.9	61.1
February	60.0	60.4	57.0	55.7	60.7	60.1
March	59.5	59.6	60.4	57.1	61.4	60.2
April	63.2	60.2	57.3	56.3	60.9	60.9
May	59.6	58.9	56.3	55.9	60.6	60.8
June	59.7	59.5	57.2	56.2	61.2	61.7
July	58.0	58.3	56.1	55.8	60.9	60.5
August	58.6	60.7	57.2	56.4	61.4	61.0
September	58.8	62.2	57.4	57.4	61.7	61.2
October	59.8	64.4	57.6	57.8	61.2	60.8
November	59.4	60.1	55.2	56.3	60.2	59.5
December	59.2	59.0	57.6	57.3	60.9	60.5

Noise contours

It should be noted the contours produced and analysed in this section were completed in January 2020 as per the Airport's planning requirement. Subsequently, due to COVID-19, the summer forecast will change significantly and therefore the airport will be seeking to update this if the Airport's Noise Insulation Scheme is resumed later in 2020.

Conditions 30 and 31 attached to the planning permission for the development of the Airport dated 16 February 2011 require forecast aircraft movements and consequential noise contours over a 92 day period between mid-June and mid-September to be reported to the local planning authority on 31 January each year. Condition 30 refers to the 57dB(A) Leq16hr (0700-2300) contour and condition 31 refers to the 63dB(A) Leq 16hr (0700-2300) contour. Noise predictions have been undertaken using the latest version of the Federal Aviation Authority noise contour modelling software Aviation Environment Design Tool (AEDT – Version 2d), which has replaced the Integrated Noise Model 7.0 used previously. Forecast commercial aircraft movements for summer 2020 have been derived from the airline scheduling system operated and

co-ordinated for Bristol Airport by Airports Coordination Limited.

Movements have been allocated to the 09 and 27 runway directions in accordance with the 16-year average modal split between the two runways for the summer period of 23 % / 77 % (as shown in Table 5). The area of the 57dB predicted contour for summer 2020 has been calculated at 10.2 sq. km, compared with a limit of 12.42 sq. km set out in planning condition 30. The resulting noise contours are included at Appendix B, albeit this will be updated for the reasons detailed above. It is this contour which determines the eligible properties as per the airports Noise Insulation Scheme.

It is important to note, the methodology used to collate this contour does not take into consideration:

- Topographical terrain data for the area.
- Final climb and arrival profiles for airline fleets.
- Adjustments to noise emissions to represent measured noise levels at the airport.

Comparing the areas of the current forecasted 2020 contours with those previously forecasted for 2019 shows a decrease in area. For example, the area of the 57 dB LAeq,16h contour decreases by 11 % from 2019 to 2020. A broadly similar decrease is evident across all contour bands.

Looking at the scheduled movement numbers in the 2020 forecast compared to 2019, they have decreased by 8 % overall. This result, in part, is due to FlyBMI and Thomas Cook ceasing operations.



Considering the aircraft mix, Airbus and Boeing jet aircraft have increased as a proportion of movements made, from 77 % to 83 %. However, the Airbus A320neo aircraft type, which is a modernised, quieter aircraft type, now makes up 11 % of the forecast movements for summer 2020 when it was completed in January 2020. Due to the COVID-19 pandemic and the change in aircraft movements, this forecast is being re-modelled as agreed with the Airport Community Fund Committee. This will be published in due course and ultimately, due to the significant decrease in movements over the summer period, will reduce the size of the noise contour beyond the January 2020 forecast as detailed in this report.

The 2019 forecast excluded information of the number of Airbus A320neo aircraft movements because it was not clear how many A320 Neo's would operate during the summer of 2019. Therefore, to forecast the previous 2019 summer contour, whilst being conservative, the assumption was made to model all A320s as the existing type last year. The current forecast allowed us to build a clearer picture of the uptake in A320 Neo's. Therefore the 2020 Summer contour includes what we consider to be a more representative forecast of the airbus Neo family of aircraft which is likely to remain proportionately the same once an updated summer 2020 contour is produced. Given these changes, it follows that we would

expect to see a decrease in contour area in-line with the findings.

The number of properties within the forecasted summer daytime contours are detailed in Table 8 below. The number of properties is accumulative. For example, the number of properties in the 63dB contour are also included in the 60dB contour.

Table 8: Number of Dwellings in Noise Insulation Scheme contours 2019 and 2020 comparison.

Contour Level (dB LAeq,16h)	Dwellings within Summer Daytime Air Noise Contours	
	2019	2020
≥57	467	425
≥60	204	192
≥63	13	13



Noise Complaints

Bristol Airport operates a dedicated noise complaint telephone number, an email address and a web-based system for logging and tracking complaints at www.bristolairport.co.uk.

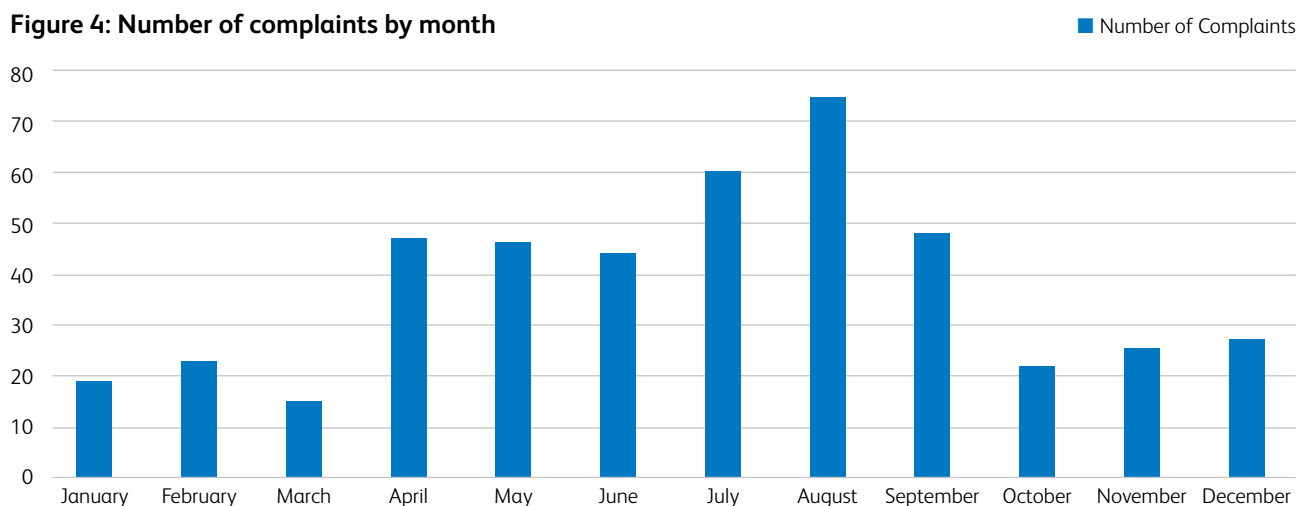
Noise complaints can also be submitted by post. During 2019, Bristol Airport received a total of 451 complaints relating to aircraft operations through all communication channels. The number of aircraft movements per complaint has fallen from 203 in 2018 to 154 in 2019. These statistics are provided in Table 9.

Table 9: Noise complaints

	2019	2018	2017	2016
Total number of complaints	451	379	172	167
Number of individual complainants	229	176	100	71
Average number of complaints per complainant	1.9	2.2	1.7	2.4
Number of aircraft movements per complaint	154	203	443	442

The distribution of noise complaints by month throughout 2018 is shown in Figure 4.

Figure 4: Number of complaints by month

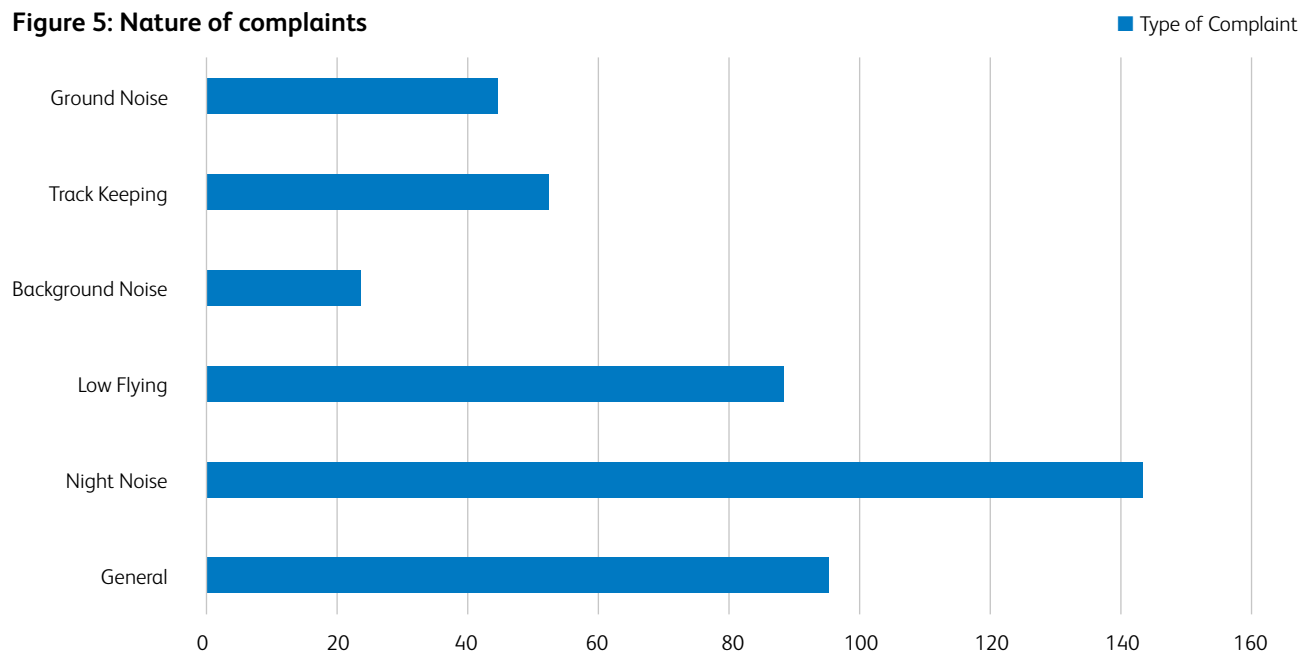


The nature of complaints, as allocated by complainants, in 2018 is shown in Table 10. Figure 5 shows this data by nature of complaint.

Table 10: Type of Concern and number of complaints raised

Type of Concern	Number of Complaints
General	96
Night Noise	144
Low Flying	89
Background Noise	24
Track Keeping	53
Ground Noise	45
Total	451

Figure 5: Nature of complaints



The source of noise complaints in 2019, as allocated by the complainants, can be found in Figure 6. The size of the dot represents the number of complaints from a specific location made to the airport. The colour of the dot represents the main theme of the complaints made.

Figure 6: Top 10 locations of noise complaints

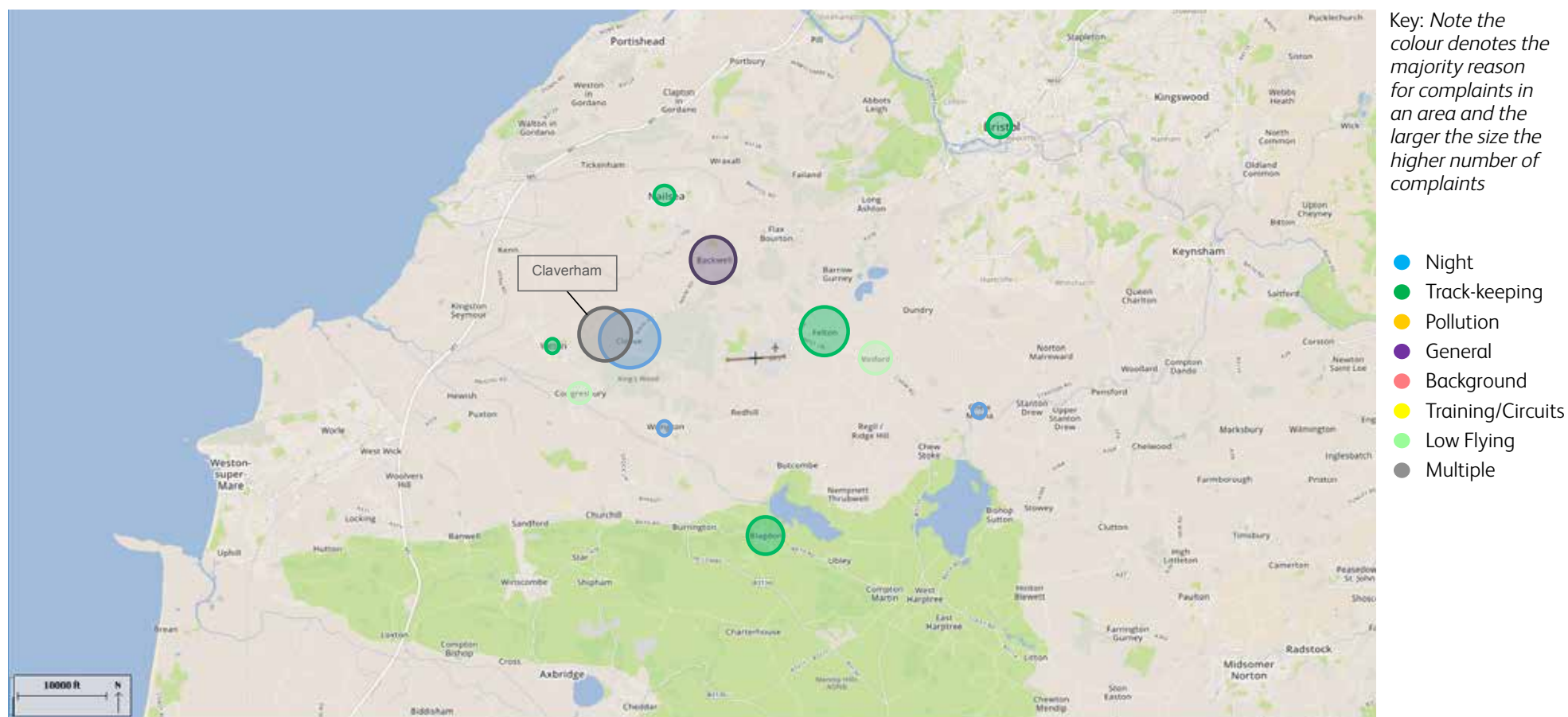


Table 11 identifies the areas from which three or more complaints were received in 2019 compared with 2018. New areas with three or more complaints in 2019 are Burnett, Chew Magna, Claverham, Dundry, Kingston Seymour, Portishead, Publow and Redhill.

Of these new areas the most common reason for complaint was night flights however a high number of these are directly associated with other airport correspondence such as reference to the airports planning application which was submitted to the local planning authority in December 2018 and continued to be subject to public attention throughout 2019. As detailed in Chapter 12, the number of night flights decreased year-on-year in 2019 during the summer period. The volume of complaints in certain areas, especially those with a particularly high number, were generated by 1 or 2 complainants. This is the case with the top two areas of Claverham and Cleeve as seen in Table 12.

Table 11: Areas with three or more noise complaints during 2019 and 2018

Location			Location		
Number of complaints			Number of complaints		
	2019	2018		2019	2018
Abotts Leigh	1		Longwell Green	1	
Backwell	39	14	Nailsea	16	4
Barrow Gurney	1		Pensford	3	
Bath	6	14	Portishead	1	
Blagdon	25		Publow	5	
Bristol	23	6	Redhill	3	
Burnett	5		Shipham	1	
Burnham on Sea	1		Speedwell	1	
Chew Magna	8		Stanton Drew	2	
Chew stoke	1		Stoke Lodge	2	
Claverham	64		Timsbury	1	
Cleeve	69	82	Unknown	6	
Clevedon	6	6	Usk	1	
Congresbury	17	26	Weston super Mare	6	15
Dundry	3		Whitchurch	6	8
Felton	58	56	Willsbridge	1	
Flax bourton	1		Winford	23	22
Hampton Park	1		Winscombe	1	
Hartcliffe	1		Wrington	14	18
Kingston Seymour	6		Yate	1	
Langford	2		Yatton	12	11
Long Ashton	3				

Table 12 shows, based on origin, where Bristol Airport received complaints from in 2019 and the number of individual complainants raising concerns.

Table 12: Number of Complaints, Origin and Number of Complainants

Please note totals differ due to absence of address information for some complaints made.

Location	No of Complaints	No of Complainants	Location	No of Complaints	No of Complainants
Cleeve	69	5	Pensford	3	3
Claverham	64	5	Redhill	3	1
Felton	58	27	Langford	2	2
Backwell	39	11	Stanton Drew	2	1
Blagdon	25	11	Stoke Lodge	2	1
Winford	23	16	Abotts Leigh	1	2
Bristol	24	16	Barrow Gurney	1	1
Congresbury	17	12	Burnham on Sea	1	1
Nailsea	16	9	Chew stoke	1	1
Wroughton	14	6	Flax bourton	1	1
Yatton	12	10	Hartcliffe	1	1
Chew Magna	8	4	Longwell Green	1	1
Bath	6	6	Portishead	1	1
Clevedon	6	3	Shipham	1	1
Kingston Seymour	6	4	Speedwell	1	1
Weston super Mare	6	4	Timsbury	1	1
Whitchurch	6	4	Usk	1	1
Burnett	5	4	Willsbridge	1	1
Publow	5	1	Winscombe	1	1
Dundry	3	5	Yate	1	1
Long Ashton	3	3	Total	451	198

Night noise quota usage

The following information relates to the requirements as set out within the airports Section 106 Conditions 36 to 39, 16th February 2011. night-time operations at Bristol Airport are controlled by a noise quota system. The restrictions specify a night period (23:00-07:00) during which time the noisiest types of aircraft may not be scheduled to land or take off. In addition, between 23:30 and 06:00, the night quota period, aircraft movements are restricted by a noise quota limit. Aircraft count against the noise quota according to their quota count (QC) classification.

The quota count itself is related to the noise classification of aircraft as set out in a formal notice published by the CAA on a regular basis. The restrictions allow for dispensations to be given in certain circumstances and there are provisions for dealing with delayed departures and early arrivals. The quota limits are set on a seasonal basis, defined by the period of British Summer Time. The summer season is therefore about seven months long for which a current quota count limit of 1,260 applies. The winter season is about five months long for which a current quota count limit of 900 applies. Up to 10% of the noise quota, if not used in the current season, is carried over to the following season. Similarly, up to 10% of the next season's quota may be anticipated in the event of an overrun. Any excess overrun over 10% is penalised in the following season at double the amount of the excess.

The total number of take-offs and landings between the hours of 23:30 and 06:00 shall not exceed 3000 in the summer season and 1000 in the winter season. The total number of take-offs and landings between the hours of 06:00 and 07:00 and between 23:00 and 23:30 shall not exceed 10,500 in any calendar year. Table 13 records the night movements and quota usage since the system came into use.

Table 13: Night movements and quota use

Year	Night movements		Quota use	
	Summer	Winter	Summer	Winter
1996/97		1251		447.5
1997/98	2334	1238	1124	675
1998/99	2492	1361	1351	765
1999/00	2940	1254	1294	632.5
2000/01	2564	1371	1239	435.5
2001/02	2999	1536	1230	614
2002/03	2655	1386	1150	444.5
2003/04	2960	1033	1378	413.5
2004/05	2082	786	1288	426
2005/06	2183	891	1225.5	472.5
2006/07	2181	163	1138	88
2007/08	2057	939	974.5	451

Table 13: Night movements and quota use continued

Year	Night movements		Quota use	
	Summer	Winter	Summer	Winter
2008/09	2322	831	1118.5	326
2009/10	2146	816	940	346
2010/11	2984	559	1375.5	216
2011/12	2216	257	1112.5	120
2012/13	1861	253	938	117
2013/14	1888	233	975.5	100
2014/15	2210	232	1145	106
2015/16	2378	244	1180	96.5
2016/17	2704	298	1354	120.5
2017/18	2991	353	1522	152
2018/19	2975	254	1490	117.5
2019/20	2933	Current	1408.5*	Current

*Summer 2019 noise quota was 1408.5. The allowance is 1260, however as described above the night flying restrictions allow for overrun from the season before and after. In this case 10% of the previous season 53.5 has been borrowed and a further 100 borrowed from the season to come (winter 2019/20).

**Summer 2019 breakdown is below:

Table 14: Calculation for QC provision summer 2019 and winter 2019/20.

REF	Description	Value
A	Actual QC Summer 2019	1408.5
B	QC Budget Allowance Summer (S)	1260
C	QC Budget Allowance Winter (W) 2018/19	538.5
D	Initial QC Budget for W2019/20	900
E	10 % allowance of QC Budget W2018/19 if unused	53.5
F	10 % allowance of future QC Budget W2019/20	90
G	Running Summer Allowance for Summer 2019 (Ref B+E+F)	1403.5
H	Remaining QC required (Ref A less G)	5
I	Removal of Quota Count Budget from W2019/20 @ 2:1 ratio to cover Quota Count required for Summer 19 (Ref H x 2)	10
J	New W2019/20 Quota Count Budget Allowance (Ref D less [F+I])	800

The breakdown of movements in each quota count level in summer 2019 is shown in Table 15 for arrivals and departures.

Table 15: Quota use by aircraft quota count, summer 2019

	Movements	Quota count use			
		Exempt	0.5	1	2
Arrivals	2801	318	2,431	94	0
Departures	132	7	52	73	0

Both the Quota Count and Night Movement limit schemes allow the airport to raise dispensations for night flying. These dispensations relate to those identified within Condition 36 of the airports current planning permission.⁴ Such dispensations highlight, where applicable, if a movement occurred within the night period but was outside of the airports sphere of control. Such instances include wider air traffic congestion, air strikes and medical emergencies amongst others. Dispensations were submitted and agreed with North Somerset Council in 2019. For clarity, the 325 exempt movements in Table 15 are still included in the total night movements. The reason for exemption is due to the aircraft type meeting the criterion of exemption as part of the Quota Count scheme rather than the movement, in its entirety, being granted dispensation as per the criteria in Condition 36.

In 2019, Bristol Airport continued slot coordination for the night period. This ensures compliance with existing planning conditions. This was established by a competent and independent organisation known as Airports Co-ordination Limited (ACL). ACL manage all movements at the larger London airports such as Heathrow. Bristol Airport's use of such services was approved by the Department for Transport in 2017.

ACL designate a certain number of slots to airlines for the night period in accordance with the limits, they also manage dispensation requests whilst actively managing the airlines conformance against our controls. If a movement occurred within the night period, an airline could lodge a request for it to be dispensed via ACL as per the requirements of Condition 36. Both ACL and Bristol Airport would review these and report any dispensations to the local planning authority. Those requests which did not align to the conditional criteria would be refused.

In total, 133 movements were logged with dispensations to ACL, of which only 42 were accepted by Bristol Airport based on the agreed criteria in Condition 36.

Further to this, in late 2019, Bristol Airport, through the same process which granted the airport to be slot co-ordinated at night, commenced an exercise to implement year-round slot coordination. At the time of writing the consultation for this has been initiated by the Department of Transport. It is important to make completely clear, by Bristol Airport becoming completely slot coordinated does not mean an increased ability to fly aircraft during the night period or an alteration of the controls. The introduction of this is to allow the airport to better manage and control all movements and associated passenger numbers.

There were 8,371 movements between the hours of 06:00 and 07:00 and between 23:00 and 23:30 in 2019 compared with 5,352 in 2018.

Ground noise management

Measures adopted by Bristol Airport to minimise the effects of ground noise are set out in a Ground Noise Management Strategy prepared in accordance with the Section 106 Agreement dated 16 February 2011. Progress and key performance indicators against the areas of action are set out below.

Fixed electrical ground power

- Fixed electrical ground power (FEGP) is provided as a primary substitute for the use of aircraft auxiliary power units (APUs) or mobile ground power units. Its use is mandatory where provided and is subject to strict operational rules. Aircraft stands 19, 20, 34, 35, 36, 37, 38 and have been equipped with FEGP and the equipment was used by in 1,108 aircraft turnarounds in 2019.

Ground running of aircraft engines

- Ground running of aircraft engines is necessary as part of the scheduled maintenance undertaken to ensure that aircraft are airworthy and fit for flight. All such activities are subject to strict operational procedures.

Table 16: Ground Running of Aircraft Engines

(*September to December estimated based on 2017 due to data loss)

	2019	2018*	2017	2016	2015
Idle	347	412	356	360	300
Above Idle	32	33	39	36	27

Aircraft auxiliary power units

- Strict operational procedures are in place to control the use of APUs engine runs. APU engine runs between 23:00 and 07:00 are subject to prior approval and there were 20 such runs in 2019 (33 in 2018, 24 in 2017, 41 in 2016, and 47 in 2015).

Complaints about ground noise

- As noted in section 11 there were 45 ground noise complaints. The minority were concerned about engine ground noise. The main cause was noise associated with the access barriers to the terminal forecourt during the night which has since been addressed.

Public transport

Our public transport services continued to grow in 2019 with increased patronage across all our key bus routes, supported by continued investment in service improvements. For instance, the A2 service began in October 2018 which would have positively impacted the performance of modal share in 2019.



Bristol Airport operates the Bristol Flyer and the Weston Flyer express bus services as part of the wider network of routes serving the airport. The key public transport services at the airport are shown in the table below:

Table 17: Bus Operators and Routes

Service	Route	Operator
A1 Bristol Flyer	Bristol City Centre (Metrobus)	First
A2 Air Connect	Bristol City Centre via Bedminster	First
A3 Weston Flyer	Weston-super-Mare	First
A4 Air Decker	Bath City Centre	Bath Bus Company
A5 Local Bus	Local services	Carmel (North Somerset Council)
216	Cardiff via Newport	National Express
404	London to Penzance via BRS	National Express
Falcon	Plymouth, Exeter to Bristol via BRS	Stagecoach

The Bristol Flyer is now complemented by the Air Connect service, providing two key routes between the airport and Bristol City Centre. Patronage grew year-on-year by 7% on this key corridor in 2019. The Weston Flyer service, providing crucial connectivity to Weston-super-Mare, grew year-on-year by 36%.

Other services have also seen significant year-on-year patronage growth. This has resulted in the overall public transport mode share for airport passengers increasing from 12.5% in 2018 to 13.8% in 2019. Well over one million passengers now choose to access the airport by using our bus services every year.



For the Bristol Airport-commissioned Flyer services, patronage for 2019, compared with the 2018 figures, are as shown below.

Figure 7: Bristol City Centre graph from bus statistics

■ 2018 ■ 2019

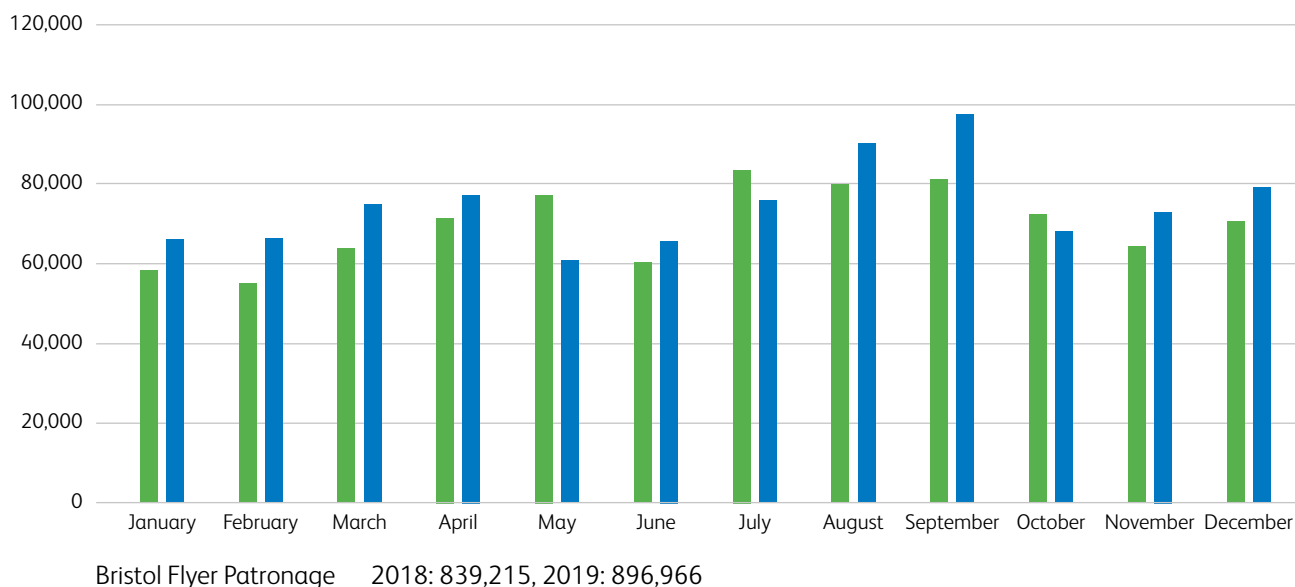
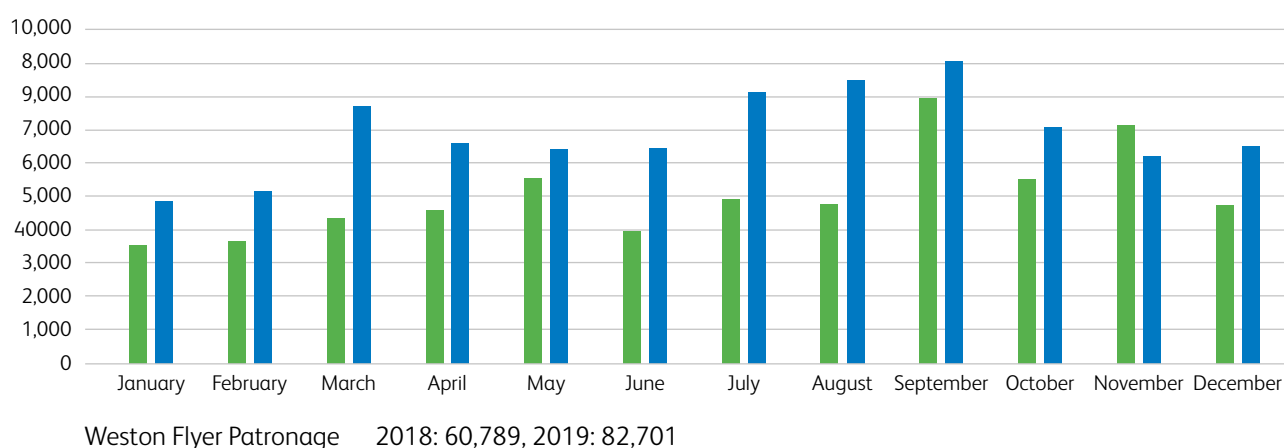


Figure 8: Weston super Mare graph from bus stats

■ 2018 ■ 2019



Our mode share percentage is based on the number of people travelling on the bus services listed above compared with the number of airport passengers throughout the year. The CAA survey undertaken in 2019 also records some wider public transport use, for example passengers travelling by rail to Bristol or Bath and then completing their journey by another mode of transport. When considering the 'primary mode' of travel, such as rail journeys, the public transport mode share can be identified as a higher figure, as shown by the CAA survey results. A new Airport Surface Access Strategy is under development which will look at this methodology further.

In 2019 we also continued to make improvements to our sustainable travel incentives for employees at the airport. We took part in the *Travelwest* employee travel survey which identified that 21 % of airport staff travel to work using a sustainable mode of travel, including through our car sharing scheme. Whilst continuing to promote public transport to staff in 2019, we also invested in new cycle parking, car sharing and electric vehicle infrastructure for employees. Our work in this area was recognised at the annual *Travelwest* Awards, being awarded 'Most Improved Workplace' for sustainable transport in 2019.

Air quality

Air quality can be affected by several pollutants that, in high concentrations, may pose harm to human health. Combustion processes produce Nitrogen Dioxide (NO₂) and Particulate Matter (PM₁₀) with the main potential airport sources coming from vehicle traffic (staff and passenger journeys and airport operational vehicles), aircraft engines (during taxiing, take-off and landing), energy generation (diesel generators and gas boilers), fugitive emissions (evaporation - during fuelling of aircraft and vehicles) and other activities such as fire training.



This section considers air quality at Bristol Airport during 2019, comparing recorded concentrations with the UK's Air Quality Strategy and against the commitments contained within Bristol Airport's S106 Agreement⁵ with North Somerset Council.

The National Air Quality Strategy (NAQS) forms the legislative basis for air quality in the UK, stipulating long and short-term objectives to ensure air quality does not contribute to health issues.

National Air Quality Strategy Objectives

Pollutant	Annual objective (mean limit)	Short term objective (max events per annum)
NO ₂	40 µg/m ³	18 hourly means > 200 µg/m ³
PM ₁₀	40 µg/m ³	35 daily means > 50 µg/m ³

Section 106 Agreement

- Highlight air quality monitoring locations where monitored levels exceed 90 % of the National Air Quality Strategy limit
- Report significant deterioration in air quality, defined as an increase in average annual concentration of more than 15 % compared to the average levels recorded between 2007 – 2011 (NO₂) or particulate levels exceeding 50 µg/m³ in more than 15 days in a calendar year (PM₁₀)

Monitoring of air quality is undertaken continuously, with real-time monitors recording levels of both NO₂ and PM₁₀ at the Airport site. Additionally, passive diffusion tubes are deployed to monitor average monthly NO₂ concentrations at nine locations across the Airport, including the location of the continuous air quality monitor. The locations of the monitors are shown in Figure 9.

Figure 9: Location of air quality monitors



Ambient concentrations of NO₂ and PM₁₀ recorded by real time monitoring in 2019 are shown in Table 18 with analysis against NAQS and S106 objectives.

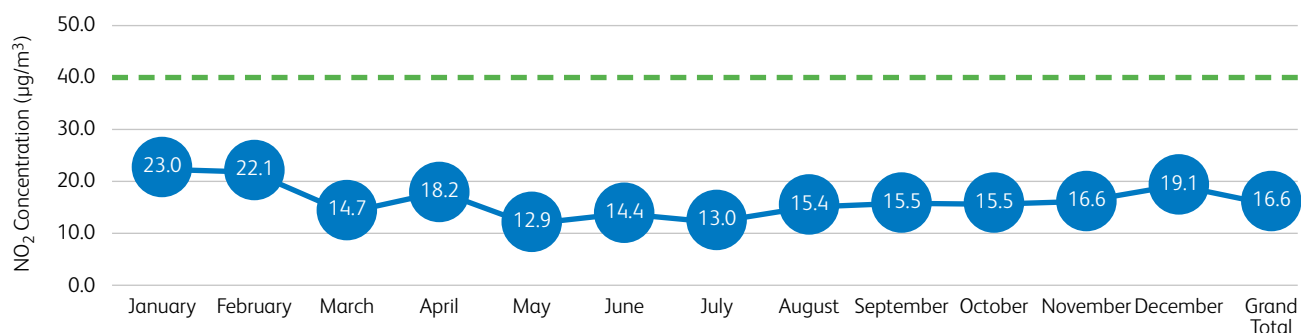
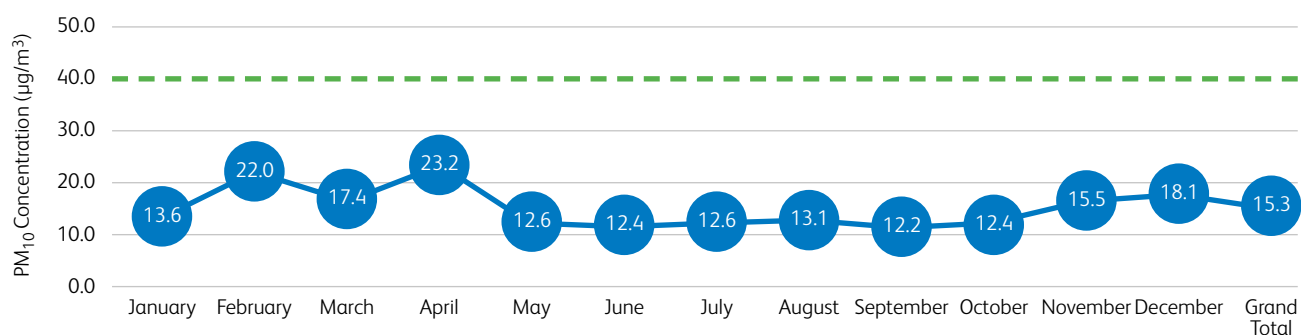
Table 18: Recorded results for 2018 and performance

	Recorded Annual Mean (µg/m ³)	NO ₂ - Hourly Means > 200µg/m ³ PM ₁₀ - Daily Means > 50µg/m ³	NAQS Compliant	Annual Mean <90% NAQS Objective
NO ₂	17	0	Yes	Yes
PM ₁₀	17.7	10	Yes	Yes

Five-year baseline data is derived from historic monitoring prior to 2012. The current air quality monitoring programme includes several sites which were not monitored prior to 2012 and therefore a five-year baseline is not available at all locations. A five-year baseline running from 2013 – 2018 is in bold where necessary⁶.

Monthly ambient concentrations recorded by real time monitoring are in Figures 10 & 11.

⁶ This not required as part of the S106 Agreement relating to Bristol Airport, 16th February 2011

Figure 10: Nitrogen Dioxide monthly average readings for real time monitoring in 2019**Figure 11: Particulate Matter monthly average concentrations recorded by real time monitoring in 2019**

NO₂ levels recorded by diffusion tube monitoring are shown in Table 19 with analysis against NAQS and S106 objectives.

Table 19: Diffusion tube monitoring results for 2019⁷

Monitoring Location	5yr Baseline (µg/m ³)	Recorded Annual Mean (µg/m ³)	NAQS Compliant	Annual Mean <90% NAQS Objective	Significant Deterioration
1	34	31	Yes	Yes	No
2	39	34	Yes	Yes	No
3	16	11	Yes	Yes	No
4	15	13	Yes	Yes	No
5	38	33	Yes	Yes	No
6	21	20	Yes	Yes	No
7	25	23	Yes	Yes	No
8	50	36	Yes	Yes	No
9	22	21	Yes	Yes	No

⁷ Diffusion tube monitoring results are reported following the removal of anomalous data and bias adjustment in line with Defra Guidance. The baseline data is based on data collected between 2007 and 2011.

Waste management

Bristol Airport Limited manages all the waste streams from property under its control (including terminal and administration waste). The waste figures for 2018 and 2019 are shown in Table 20.

Table 20: Waste management results for 2018 and 2019

Waste Stream	2019		2018	
	Totals (tonnes)	Waste per passenger (kg)	Totals (tonnes)	Waste per passenger (kg)
Recycled waste				
• Cardboard	272.08	0.03	170.03	0.02
• Glass	198.85	0.02	194.17	0.02
• Plastic bottles	33.71	<0.01	22.84	<0.01
• Mixed (incl. paper/plastics/cans)	66.03	<0.01	199.77	0.02
• Coffee Cups	13.01	<0.01	Not Itemised	Not Itemised
• Other such as wood, metal and electrical	76.83	<0.01	Not Itemised	Not Itemised
Total recycled waste	660.71	0.10	617.72	0.07
Food waste to Anaerobic digestion	232.49	0.02	199.1	0.02
Waste treated and sent to energy from waste	778.40	0.08	820.23	0.09
Waste sent to landfill	0.12	<0.01	0.51	<0.01
Total waste removed from BIA	1671.52	0.18	1638.57	0.19
% waste recycled or recovered	99.99		99.94	
% waste recycled on site (including food waste)	53.4%		49.9%	

In 2019 the Airport remained a zero-landfill airport. The ash (a by-product of the waste to energy disposal process) is collected at the Avonmouth Waste 2 Energy plant and is used in other products such as tarmacadam and colourisation of concrete. This residual amount is 0.01 % of the total waste generated.

Recycling efforts increased with an extra 3.5 % of waste recycled on site, amounting to over 50 % of all waste generated recycled in this way. In 2019, the airport challenged itself to increase recycling levels by 5 % (to 55 %) and to reduce waste produced on site. The airport recycled over 53 % of waste generated on site in 2019 which is a great achievement. This has been delivered through clear business-to-business partnerships with all the airports on-site operators and a significant effort by our dedicated waste management team who govern the segregation and quality of waste leaving the airport site. The airport will continue to refine and increase recycling levels in the years ahead, whilst also reducing waste volumes where possible.

Utilities & energy management



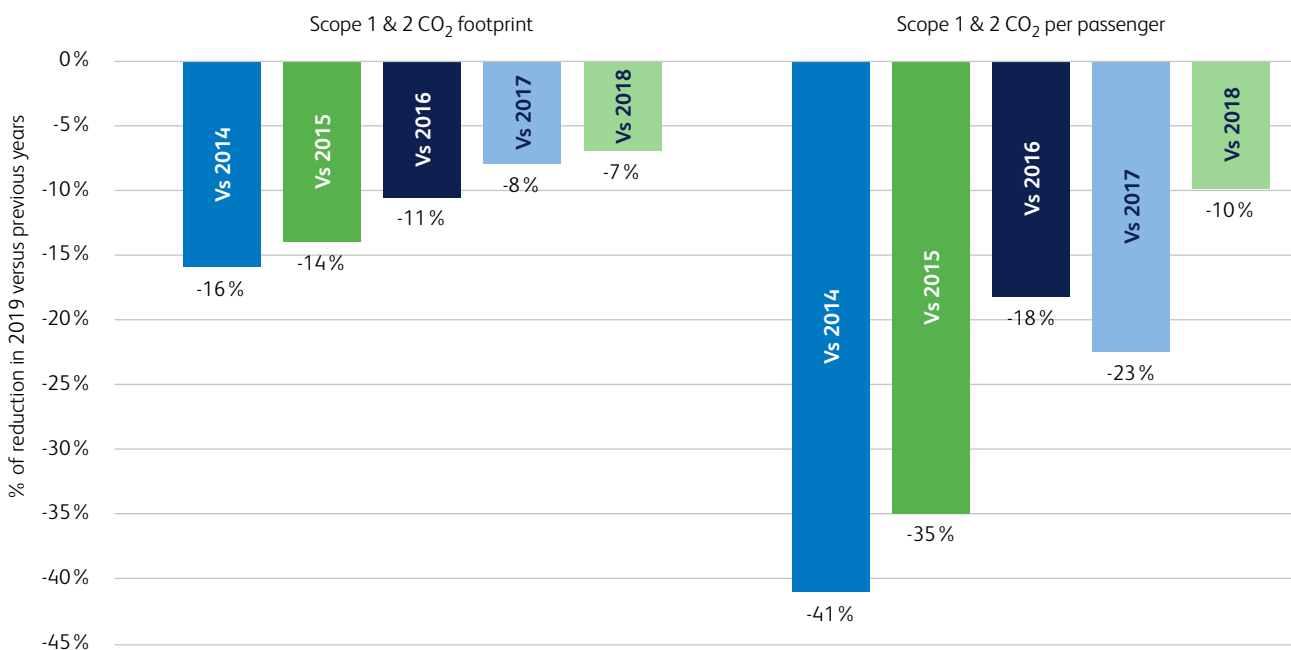
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Bristol Airport is committed to continuing to reduce carbon emissions across the airport site to achieve its objective of being carbon neutral by 2025. This will be achieved through monitoring energy use across the site and seeking to limit emissions. A range of actions are taking place to reduce the carbon intensity of the airport infrastructure. The success of this is measured through reducing per passenger carbon emissions.

Bristol Airport calculates the footprint in accordance with the Airports Council International's (ACI's) Airport Carbon Accreditation (ACA) Scheme. ACI's ACA is endorsed by the European Civil Aviation Conference (ECAC), the European Organisation for the Safety of Air Navigation (EUROCONTROL) and the United Nations Framework Convention on Climate Change (UNFCCC). Over 120 airports across the world are accredited.

Bristol Airport has achieved the first level of certification in the ACA scheme during 2015, 2016 and 2017. In June 2018, Bristol Airport gained ACA Stage 2 Certification of the four-stage programme by successfully reducing its carbon emissions year-on-year. We are delighted to announce we have retained our Stage 2 Certification in 2019.

Figure 8: Graph showing reduction in carbon emissions for per passenger and total Scope 1 and 2 emissions comparing each year to 2019 performance.



Below is a breakdown of our 2019 vs 2018 full year Scope 1 and 2 Carbon Footprint:

Table 21: Scope 1 and 2 emissions for 2017 and 2018

Scope 1			
Activity	Component	2019 CO ₂ eq (kg)	2018 CO ₂ eq (kg)
Gas use	Natural Gas	659,314	764,404
Fleet vehicles	Biodiesel	1,004,216	943,058
Heating/ red diesel	Gas Oil	290,242	250,602
Fire Training	LPG	10,658	10,633
Company cars	Petrol	2,900	3,877
Refrigerants	F-Gas	145,833	119,812
Total Scope 1 tonnes CO ₂ eq		2,113	2,092
Scope 2			
Activity	Component	CO ₂ eq (kg)	CO ₂ eq (kg)
Grid electricity	Electricity	3,659,966	3,925,333
Total Scope 2 tonnes CO ₂ eq		3,660	3,925
TOTAL ALL SCOPES tonnes CO ₂ eq		5,773	6,018

Compared to 2018:

- Absolute carbon emissions have decreased by 7%.
- Kg CO₂ per passenger has decreased by 10%.
- There has been a 41 % decrease in per passenger carbon emissions for Scope 1 and 2 emissions compared to 2014 (the baseline for improvement) and 16 % in total emissions.

Bristol Airport's carbon footprint includes all Scope 1 (directly generated) and Scope 2 (indirectly generated) emissions. This includes all infrastructure and vehicles under the airports direct control, including:

- Terminal common areas
- Offices and workshops (Lulsgate House, Aviation House, Fire Station, Silverzone Reception building and Motor Transport)
- Fleet vehicles (car park buses, airside operations vehicles, fire vehicles, other pool vehicles)
- Air Traffic Control Tower- electricity use (gas for heating is paid for by the tenant).

It includes tenanted common areas but not tenant's units, as operators are accountable for their own energy use in those areas using metered rates.

These savings have been driven with Building Management System optimisation, the installation of further renewables at Lulsgate House and further energy efficient equipment being installed through IT installations and new building infrastructure being opened such as Aviation House.

Employment

Bristol Airport is a critical employment generator within North Somerset. Regular surveys are undertaken by Bristol Airport to determine the extent and nature of employment available. The number of staff working at the Airport between 2011 and 2018 is reported in the 2018 Annual Monitoring Report. The impact of the COVID-19 pandemic has meant collating the 2019 information from our business partners has not been possible.

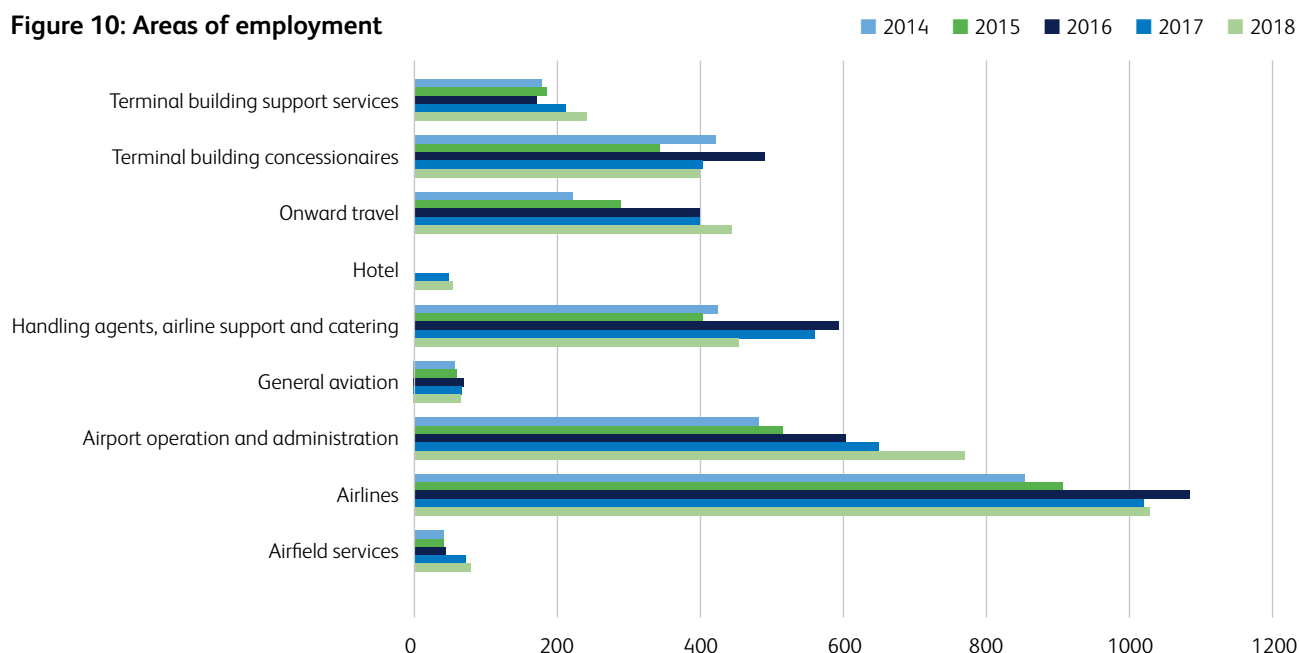
However, in 2019, the direct employment of Bristol Airport Limited (not including business partners on site) was 366. This is a 2.8 % increase in employee numbers compared to 2018.

Table 22: Details of employment at the airport.

	2018	2017	2016	2015	2014
Full time staff	2957	2976	2,669	2,243	2,396
Part time staff	1021	942	801	1,149	600
Total number of staff	3978	3918	3,470	3,392	2,996
Full time equivalents	3654	3459	3,070	2,818	2,696
Number of companies	56	54	52	52	47

A breakdown of the airport staff headcount by area of employment is provided in Figure 10.

Figure 10: Areas of employment



Bristol Airport's Skills and Employment Plan aims to provide opportunities for local residents, particularly young people, to access jobs at Bristol Airport. The Airport ran two careers fairs at Weston and City of Bristol colleges during 2019, with representation from Bristol Airport management and directors, along with attendance from many of our business partners.

A new set of corporate values were curated in 2019 (Figure 11) which became the foundation for a new induction programme for new employees. This included updates from various roles across the business and presentations on Health, Safety and Sustainability.



As a business we will be incorporating our values and behaviours, alongside our vision and strategy, into how we recruit, develop, engage, and measure performance across the airport.

ALWAYS AIMING
HIGH

WORKING WITH
PASSION

ONE TEAM ONE
FAMILY

MAKING A
DIFFERENCE

DOING WHAT'S
R/IGHT

Furthermore, members of the Bristol Airport team were delighted to visit local primary schools during 2019 to focus on learning and sustainability matters such as plastics, water usage and climate change.

Community relations

In 2019, Bristol Airport paid £166,643 into the Airport Environmental Improvement Fund, also known as the Bristol Airport Local Community Fund. The main purpose of the Fund is to mitigate the environmental and social impacts of the Airport's operations and give something back to the surrounding communities affected by being situated near an international airport. It reflects our aim to develop the airport in a sustainable way, respectful of the local community and the environment.

The Fund supports projects in the following areas:

Initiatives to mitigate the impact of aircraft and ground noise on the local community which may include (but not be limited to) noise insulation for schools and homes in affected areas, the construction of additional noise insulation barriers and the funding of school trips; The on-going improvement of transport infrastructure and services to and from Bristol Airport with an emphasis on reducing the impact of airport traffic in the community and villages surrounding the Airport which may include (but not be limited to) road improvements, public transport initiatives and measures to reduce community severance; and Nature conservation, educational projects and sustainability initiatives in the locality of the Airport.

The Fund's area of benefit concentrates on the areas most affected by aircraft operations and comprises the parishes of Winford, Wrington, Backwell, Brockley, Cleve and Barrow Gurney.

The Local Community Fund has been set up as a Community Interest Company dedicated to the purpose of investment in local community projects. A partnership approach has been taken to the management of the fund which involves community representatives in determining how funds are allocated. Applications for funding are considered four times a year by a Management Committee comprising four representatives from Bristol Airport Limited and four elected members of North Somerset Council. The Management Committee is independently chaired and the Chairman has a casting vote on funding decisions. The Management Committee evaluates each application carefully and uses its local knowledge and expertise to ensure that the fund is used to deliver the greatest possible benefit to the local community.



In 2019, the Fund provided grants totalling over £221,513* to 91 local projects.⁸ A list of the organisations and projects that have been supported follows:

Table 23: Locations and projects introduced through the community fund in 2019

Project Location	Project Description
Winford Parish Council	Play equipment
Winford C of E School	Learning dog
Theatre Orchard Group	Performing arts events for local community
Chew Valley Monday Club	Day enrichment activities
Winford Parish Council	Village noticeboards
Local residents noise insulation grants	Noise insulation
Backwell Parish Council	Village hall technical equipment
Regil Village Hall	Solar panels
Yatton Youth Club	Outdoor space improvements
Meadowside Pre-School	Outdoor learning space improvements

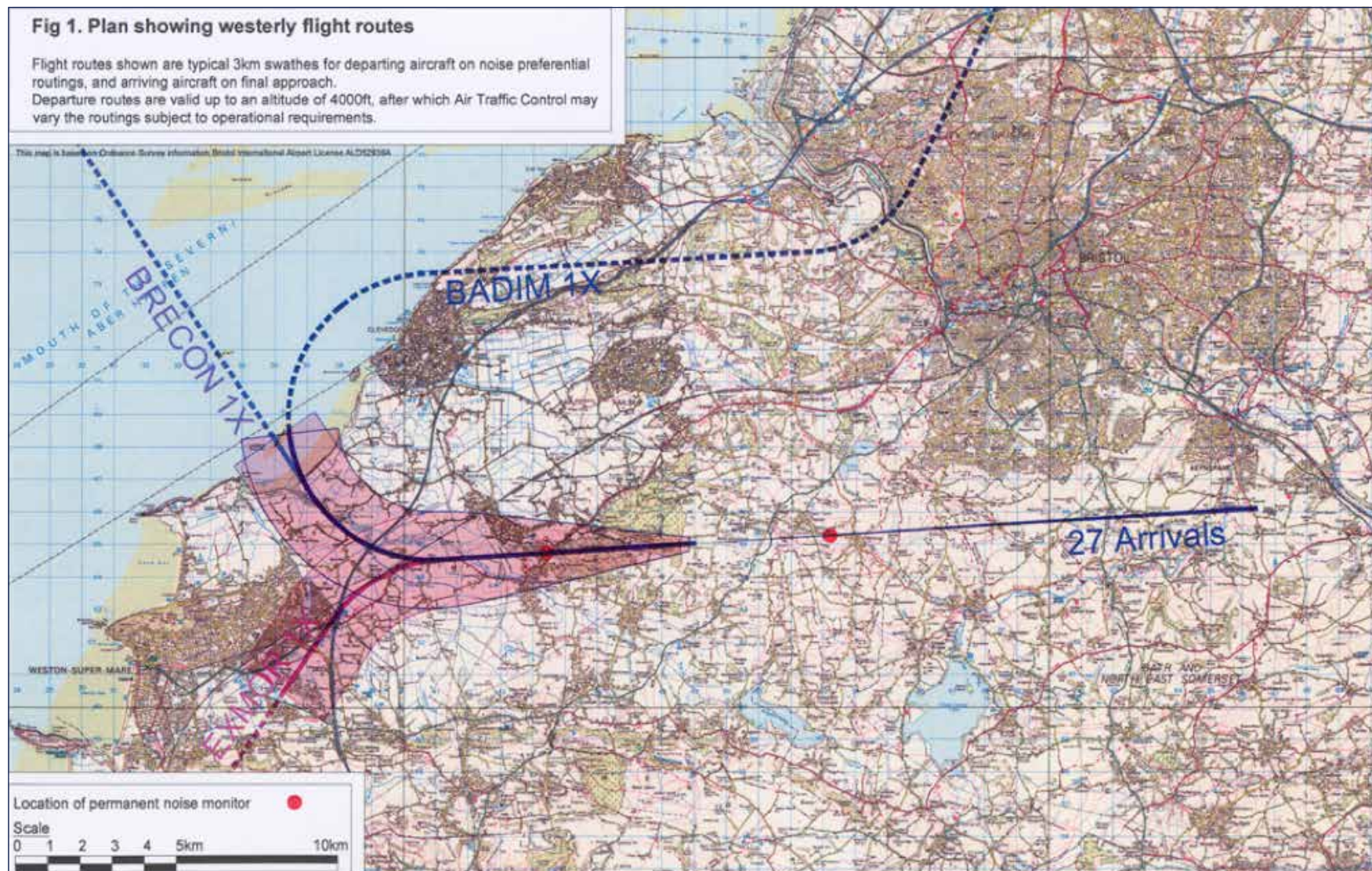
Airport staff raise money for a staff nominated charity of the year. In 2019, over £20,000 was raised by staff and customers for Great Western Air Ambulance. This charity provides emergency care to people who are in a state so critical that they require the specialist skills at the scene of the accident or medical incident.

A further £5,000 was collected for the local Poppy Appeal. Bristol Airport also hosted local community events including Local Community Drop-in sessions and school visits - totalling 18 over the year - to view the airport operations. The Airport also supported the St Paul's Carnival and Bristol Pride events.

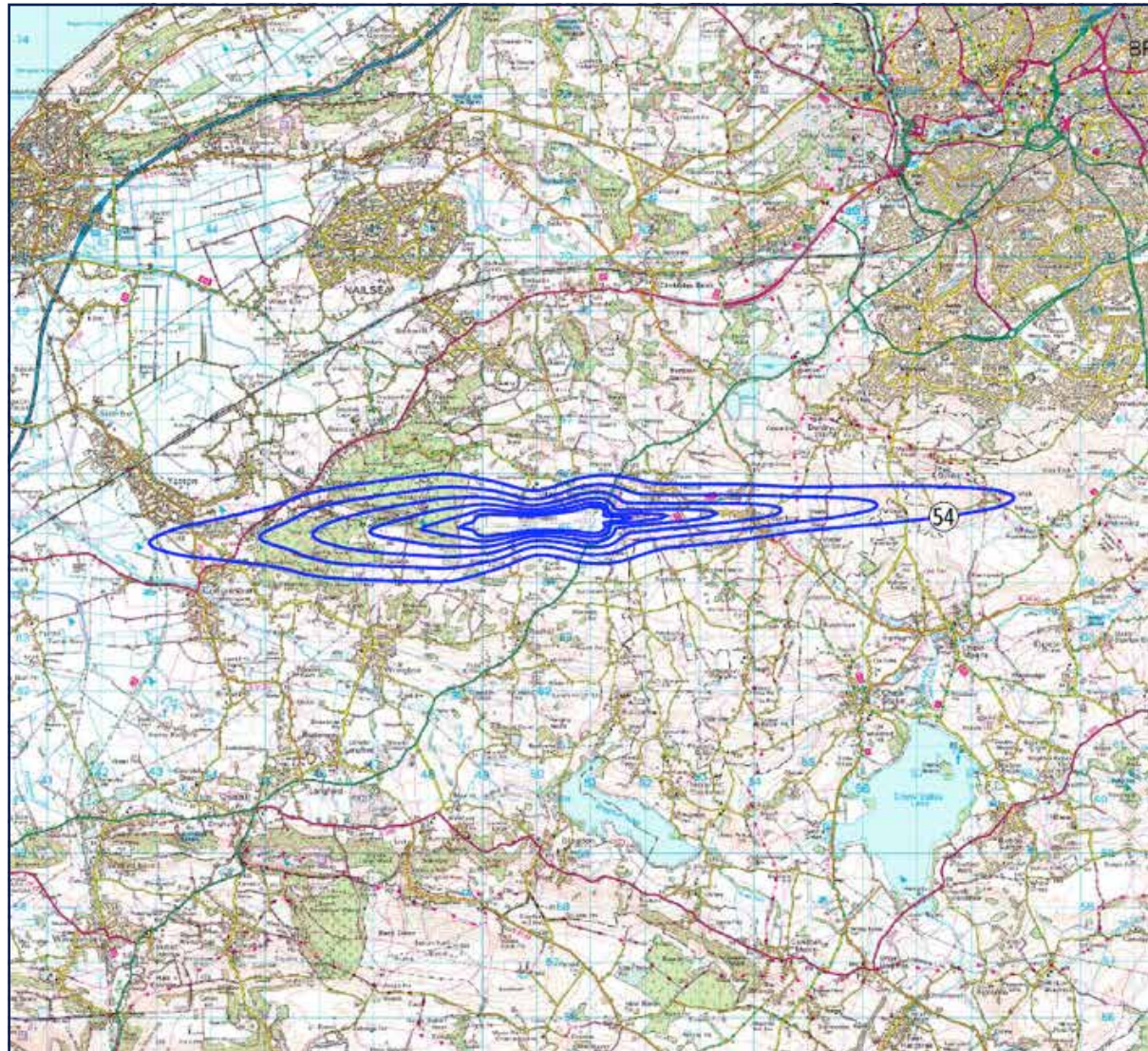
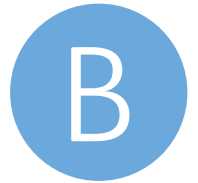
**grants included un-spent monies carried over from 2018*

⁸ This includes 81 noise insulation scheme grants for noise insulation works in 2019.

Appendix A - Flight routing maps



Appendix B – Predicted noise contours for summer 2020



This drawing contains Ordnance Survey data © Crown Copyright and database right 2020.

LEGEND:

Noise Contours,
54 to 69 dB LAeq,16h in 3 dB steps

Rev	Date	Description	Initials

REVISIONS

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**Bristol Airport
2020 Forecast Noise Contours**

**2020 Forecast Noise Contours
Summer LAeq,16h**

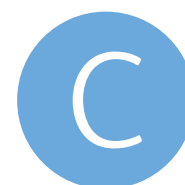
DRAWN: NW CHECKED: DC

DATE: January 2020 SCALE: 1:100000@A4

Drawing No:

A11326_01_DR002_1.0

Note: contours are at 3dB intervals with an outer contour of 54dB_{LAeq,16h}



Appendix C – Noise Action Plan

Noise Action Plan 2019-2024

Our first Noise Action Plan covered the period from 2010 to 2015, and our second from 2014 to 2018. This is our third Noise Action Plan covering the period 2019 to 2024 and where applicable, includes actions beyond this time period.

The Noise Action Plan (2019 – 2024) was fully adopted on 11th February 2019 by the Department for Environment Food & Rural Affairs for Bristol Airport as required by the Environmental Noise Directive and the Environmental Noise (England) Regulations 2006 (as amended). The main purpose of an airports Noise Action Plan is to effectively plan, manage and where possible reduce the adverse effects of aviation noise associated to our operations.

Within the Noise Action Plan 19 new actions were developed and progress are as follows:

Action No	Action	Define Success	Timescale	Status
1	Complete a feasibility study for the further installation of FEGP provision to service stands which currently rely on MGPU use by December 2020. Once completed any actions derived will be presented to the airports Consultative Committee.	Completed Feasibility Study	Dec-20	On Track - The study has begun in earnest exploring the need of not only FEGP but also ground power provision in general. This includes mobile ground power and exploration of alternative fuel sources such as Hydrogen.
2	We will review the Bristol Airport Ground Noise Management Strategy prepared in 2012 in 2019.	Review of Ground Noise Management Study	Dec-19	Achieved - The review of the Ground Noise Study was completed as part of the Airports Planning Application and the only main revision was the ability to provide FEGP to the East Stands in 2019. This will be revised again in 2021.
3	By June 2020, the Airport will review the aeronautical fee differentials based on aircraft noise certification to further enhance incentives for quieter aircraft to operate from Bristol Airport. The resulting findings and actions will be published within our Annual Operations Report for the year 2021.	Review the aeronautical fee differentials based on aircraft noise certification	Jun-20	Reconsidering timing - This pending due to the impact of COVID19 on the industry. Will seek to complete the review by June 2021



Action No	Action	Define Success	Timescale	Status
4	We will assess the mechanics of the Penalties Scheme and update, where applicable, in line with latest guidance and best practice in 2019. Reviews of the application of the scheme and if required alterations applied, every two years thereafter.	Completed assessment of the mechanics of the Penalties Scheme	Dec-19	Achieved - The mechanics of the Penalties Scheme using daytime and night-time Lmax levels continues to be best practice as emulated by other airports. This will be reviewed as further guidance provided by industry bodies to highlight best practice in this area as and when available.
5	In conjunction with the above, in association with a successful planning application, the penalty system will be reviewed.	Review of Penalty System	Dec-20	Reconsidering timing - Due to the airports recent planning application being refused in February 2020 this will be reviewed by December 2021.
6	We will seek to achieve an 85 % CDA compliance rate by 2023.	Achieving 85 % CDA success rate	Dec-23	On Track - Work will continue with our customer airlines to promote CDA compliance as part of the airports Flight Operations Sub Committee.
7	We will begin looking at alternative flight paths for respite purposes with a view for implementation by 2026/27.	Review and Implementation of Airspace Change	Dec-27	On Track - This is essential area for airspace change which Bristol Airport consulted extensively in 2019 albeit, due to COVID19 the entire FASI South Programme is paused.
8	In association with a successful planning application the night quota count system will be reviewed.	Review of Night Quota Count system	Dec-20	Achieved - The airports night quota count scheme was reviewed and changes were proposed as part of Bristol Airports Planning application.
9	We will review our approach with the General Aviation (GA) community and how best to deliver best practice in conjunction with future airspace change work.	Enhancements gained through Airspace Change	Dec-27	On Track - This is essential area for airspace change which Bristol Airport consulted extensively in 2019 albeit, due to COVID19, the entire FASI South Programme is paused.



Action No	Action	Define Success	Timescale	Status
10	The Airport will provide localised guidance to CDA's and will issue to airlines by 2020.	Localised Guidance on CDAs	Dec-20	Achieved - This has been made clear within the updated Aeronautical Information Package (AIP) for Bristol Airport available online within a specific section for Noise Abatement Controls. The Airport will also produce a localised booklet to pilots during the life of this iteration of the Noise Action Plan.
11	The Airport will seek to introduce RNAV routes for arrivals and departures by 2026/27 (subject to consultation).	Review and Implementation of Airspace Change	Dec-27	On Track - This is essential area for airspace change which Bristol Airport consulted extensively in 2019 albeit, due to COVID19 the entire FASI South Programme is paused.
12	We will, based on the findings of the noise climate generated from the monitor data, consider suitable noise mitigation measures, as per the current Noise Insulation Scheme, on a case by case basis. This will be introduced from 2019.	Provide Noise Insulation Grants based on localised noise monitoring	Dec-19	Achieved - The airport provided several noise insulation grants based on findings from localised temporary noise monitoring in 2019.
13	The Airport will continue to engage with North Somerset Council as and when local planning policy is developed.	Engagement with North Somerset Council to inform local policy	Dec-24	Achieved and ongoing - This continues at an officer and district Councillor level where applicable.
14	In 2019, we will be updating our noise insulation scheme guidance to allow for two opportunities to apply and enhancements to treatments it can cover.	Two opportunities to apply and treatment enhancements	Dec-19	Achieved - The airport allowed for applications to occur both in June 2019 and when local noise monitoring occurred. For simplicity it is decided only one application timeframe for eligible properties will be allowed for going forward. In addition, the airport also allowed eligible properties to fund noise reduction loft insulation and doors hung on masonry walls as part of the scheme in 2019.



Action No	Action	Define Success	Timescale	Status
15	By 2020, we will review our current noise and track keeping system and upgrade where necessary.	Review and upgrade the airports Noise and Track Keeping System	Dec-20	Achieved - The airport reviewed its Noise and Track Keeping System capabilities and removed the need for complaint reporting due to the launch of a new Customer Relation Management System, up dated maps and improved the frequency of data download from nightly to hourly.
16	By 2020, we will introduce a new interactive online tracker tool presenting, with a minimal delay where possible, of live information to aid members of the public to understand the proximity of aircraft to their location and enhance the ability of improvements of track keeping to be made.	Publication of Online Tracker Tool for public use on the airport's website	Dec-19	Complete but not yet published - This has been delayed due to finalising of the data feed, and to ensure the shortest delay possible when presenting the information. This work has now been completed but the impact of COVID-19 during the first two quarters of 2020 means the flight tracking system will be published later in 2020.
17	In 2019, we will refresh how this information (aircraft and airline track keeping) is presented and reported i.e. citing particular instances and associated improvements where relevant.	Update and refresh track keeping performance	Dec-19	Achieved - As part of the Environment Effects Working Group, close views of tracks to highlight flight profiles in the local community are now reported on a quarterly basis. This will continue to be worked on and refreshed with the group.
18	From 2019, the Airport will host every 6 months a community feedback session at the airport to update residents directly on airport matters including noise abatement measures in order to receive feedback on how these are perceived.	Hold Community Feedback Sessions	Dec-19	Achieved - The airport held two (March and October 2019) drop-in sessions during the evening at the onsite Hilton Hotel for local residents to speak to Bristol Team members concerning noise. In 2020 these are on hold in 2020 due to COVID19 and the social distancing restrictions.
19	In 2019, we will review the Annual Operations Monitoring Report content and presentation to make it even more accessible.	Improve the Annual Monitoring Report and availability	Apr-19	Achieved - The Annual Monitoring Report for 2019 was published with fresh artwork and included more data than previous reports, in particular regarding complaints analysis as requested by local community representatives.

Contact us

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