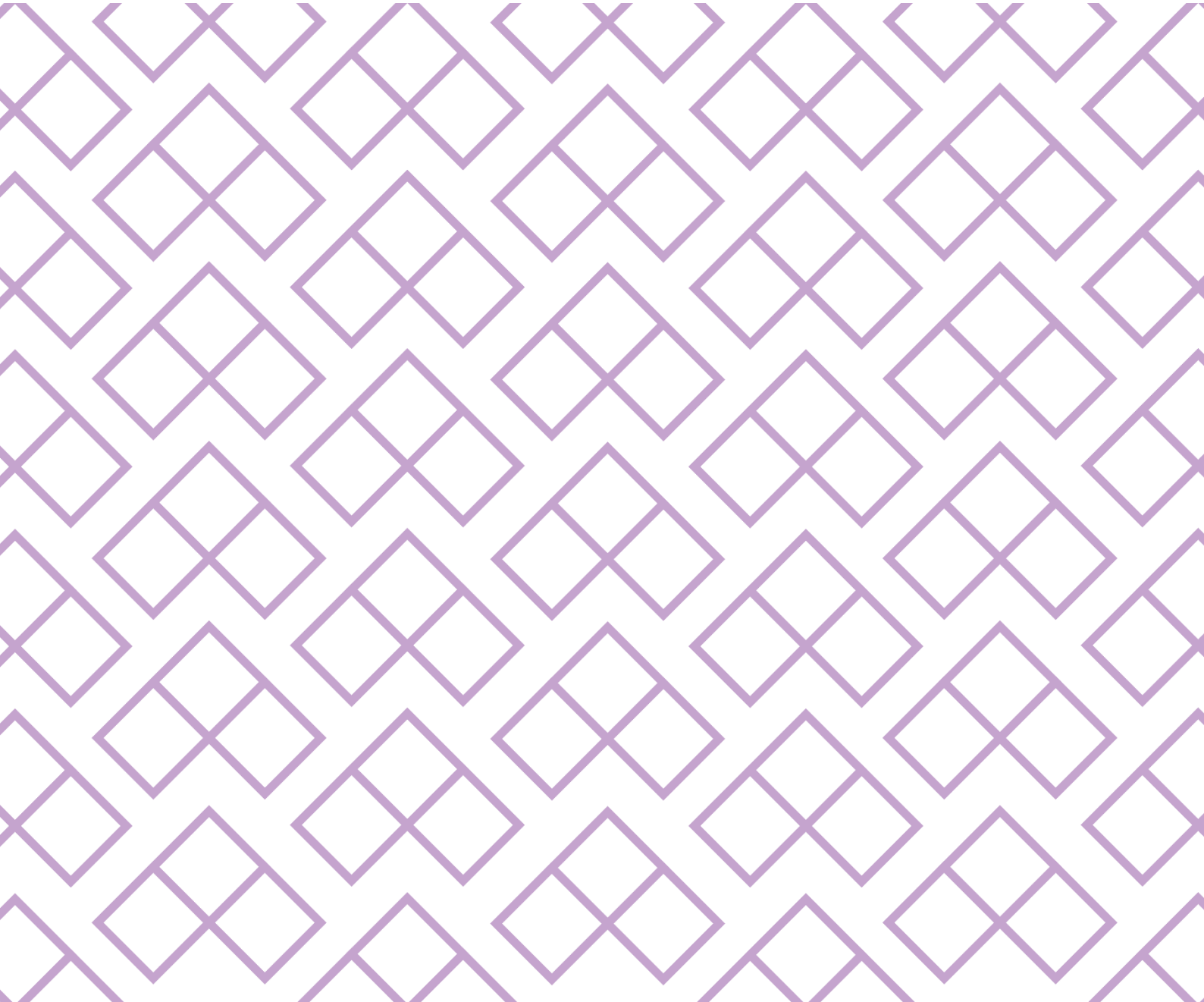
London Luton Airport

Quarterly Monitoring Report

QUARTER 4 2023



INTRODUCTION

This report provides statistics on aircraft operations at London Luton Airport (LLA) during the period October to December 2023.

KEY MONITORING INDICATORS – 4th QUARTER 2023

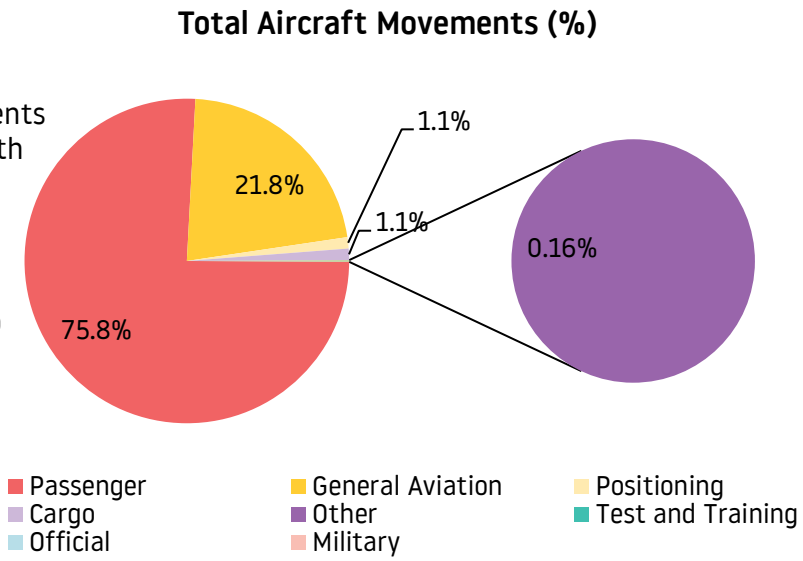
Parameter		4th Quarter 2023	4th Quarter 2022
Total Passenger Number	↑	3,704,487	3,286,090
Total Aircraft Movements	↑	30,563	28,620
Night Movements (23.00 – 06.59)	↓	3,842	3,852
Early Morning Movements (06.00 – 06.59)	↑	1,389	1,114
Aircraft Movement and Quota Count limits (per rolling 12-month period)			
Night Quota Movements (*9,650 limit*)	↑	9,279	9,157
Night Quota Count (*3,500 limit)*	↓	2,118.875	2,848.25
Early Morning Shoulder (*7,000 movements*)	↑	5,491	4,669
24hr CDA (% achievement)	↑	94%	91%
Day CDA (% achievement)	↑	95%	91%
Night CDA (% achievement)	↑	92%	91%
Track Violations	↑	16	8
Departure Noise Infringements (Day)	↑	5	0
Departure Noise Infringements (Night)	-	0	0
Noise Monitor Results*			
No. Day (Night) > 80 dB(A)	↑	7 (0)	0 (0)
No. Day (Night) > 75 dB(A)	↑	1,307 (161)	1,256 (184)
No. Day (Night) > 70 dB(A)	↑	9,060 (1,164)	8,656 (1,217)
Night Noise Contour Area (48 dB $L_{Aeq, 8h}$)	↓	25.2 km^2	26.2 km^2
Noise Complaints	↓	1,647	2,365
Complainants	↓	82	142
Number of New Complainants	↓	16	62
Largest Source of Complaints	-	Arrivals. West	Arrivals. West
Origin of Concerns (>5 Complainants)	-	Cambridge Harpenden St Albans	Cambridge Harpenden Luton Sandy St Albans
Westerly/Easterly Runway Split (%)	-	81/19	80/20

1 AIR TRAFFIC DATA

1.1 Aircraft Movements

There were 30,563 aircraft movements during this quarter (compared with 28,620 for the same period in 2022), an increase of 6.8%.

This resulted in an average 340 movements per 24 hours (compared to 318 last year).



A breakdown of these movements is shown below:

	Commercial				Non-Commercial					Total
	Cargo	*Passenger*	*Positioning*		*Military*	*Official*	*Other*[1]	*General Aviation*[2]	*Test & Training*	
			Other	*STN*						
Oct 2023	118	8,629	119	8	0	0	16	2,530	0	**11,420**
Nov 2023	125	6,605	85	18	0	0	22	2,093	0	**8,938**
Dec 2023	106	7,921	117	9	0	0	10	2,042	0	**10,205**
QTR Total	**349**	**23,155**	**319**	**25**	**0**	**0**	**48**	**6,665**	**0**	**30,563**

1.2 Passenger Statistics

A total of 3,704,487 passengers passed through LLA during the period October to December 2023 (compared with 3,286,090 for the same period last year); 3,683,686 on scheduled flights (99%) and 20,801 on charter flights (1%). This represents 12.7% increase in passengers and equates to an average 41,161 passengers per 24 hours (compared to 35,718 during the same quarter last year).

	Domestic	EU	Non-EU	Total
Oct 2023	110,126	1,081,308	226,350	**1,417,784**
Nov 2023	100,989	762,925	206,773	**1,070,687**
Dec 2023	112,781	828,350	274,885	**1,216,016**
QTR Total	**323,896**	**2,672,583**	**708,008**	**3,704,487**

* *Non-Commercial relates to aircraft not operating for hire or reward.*

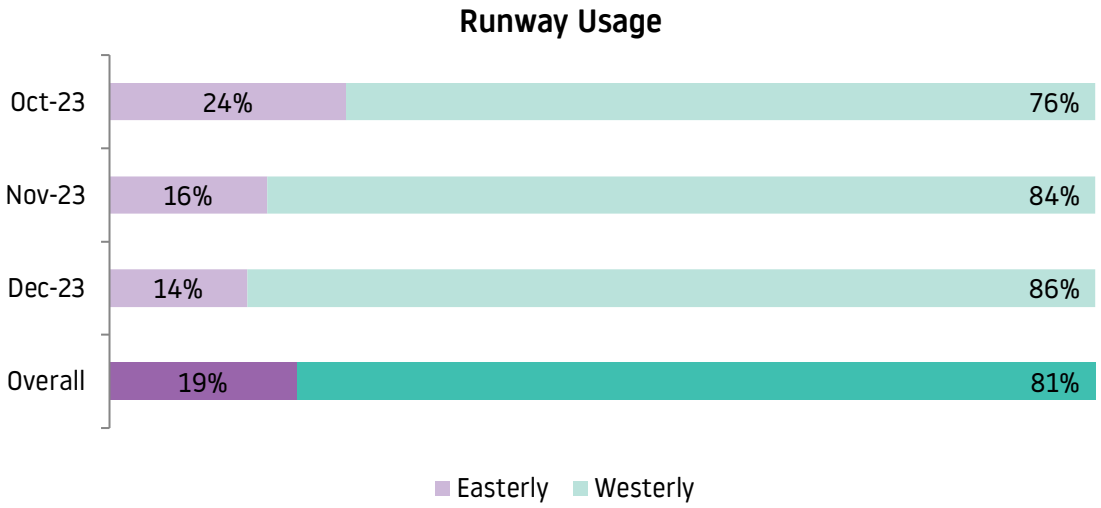
[1] *Other relates to flights coming for maintenance and or departing aircraft that have made an unscheduled return to base*

[2] *General Aviation incorporates Private Aircraft, Helicopters and Business Jets*

1.3 Runway Usage

The direction of operation is determined by wind direction. Aircraft operating in a westerly direction take off towards the west and land from the east. Aircraft operating in an easterly direction take off towards the east and land from the west.

The runway usage split during this period was 19% easterly and 81% westerly (in comparison to a 20%-80% split in the same quarter last year). The monthly breakdown of these statistics is as follows:



1.4 Night Flying Restrictions

On 1st April 2015 London Luton Airport introduced Night Restrictions as part of planning conditions.

These restrictions are put in place to limit and mitigate noise disturbance from aircraft operating at night, to prohibit aircraft of certain types from operating, and to limit the number of occasions on which aircraft may take off or land.

The night flying restrictions contain a 12-month period aircraft movement limit and a 12-month period quota count limit. The quota count (QC) is a points-based system that allocates points to different aircraft types according to the level of noise they produce. The noisier the aircraft type, the higher the points allocated.

1.4.1 Definitions

The 'Night Quota Period'

The 'Night Quota Period' is from 23:30 to 05:59 hours local. During this period the number of aircraft movements (take-off or landing) is restricted, as well as an additional limit on the number of noise QC points.

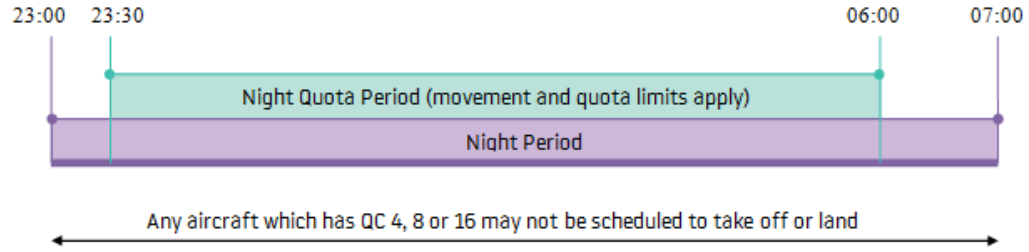
Aircraft are certified by the International Civil Aviation Organisation (ICAO) according to the noise they produce during specific certification tests conducted by the manufacturer. They are classified separately for both take-off and landing. The points are allocated to different aircraft types according to the sound level they produce. The table overleaf details the QC bands identified by the certified noise levels, and gives some typical example aircraft, some of which operate from LLA:

Certificated noise level (EPNdB)	Quota count	Typical aircraft
93 to 95.9	QC 2	Boeing 777-200 Airbus A300-600 Airbus A330
90 to 92.9	QC 1	Airbus A320/A321 Some Boeing 737-800 Boeing 757-200 Boeing 787-8
87 to 89.9	QC 0.5	Airbus A319/A320 Boeing 737-400 Boeing 737-800 Boeing 787-8
84 to 86.9	QC 0.25	Airbus A319/A320 Airbus A321neo Boeing 737-800 Max Dassault Falcon 7X/900/2000
81 to 83.9	QC 0.125	Airbus A320neo Global Express
Less than 81	QC 0	Challenger series (eg CL600) Cessna 525/550

The 'Early Morning Shoulder Period'

The 'Early Morning Shoulder Period' is 06:00 to 06:59 hours local. During this period the number of aircraft movements (take-off or landing) is also restricted in a similar way to the Night Quota Period.

1.4.2 Restrictions at London Luton Airport



1.4.3 Aircraft movement and quota count limits (per 12-month period)

Condition 11(f) requires that the following limits shall not be exceeded for the Night Quota Period (2330 – 0559 hours local):

(i) Total annual movements by aircraft per 12-month period shall be limited to 9,650;
(ii) The total annual noise quota in any 12-month period shall be limited to 3,500.

Condition 11(h) requires that the total number of movements by aircraft in any 12-month period shall be limited to 7,000 for the Early Morning Shoulder Period (0600 – 0659 hours local).

The table overleaf provides the aircraft movement and quota count for the last rolling 12-month period. These can be compared with the limits set within the planning conditions.

	Night Quota Period (2330-0559)		Early Morning Shoulder (0600-0659)
	Movements Limited to 9,650 Annually	*Quota Count Limited to 3,500 Annually*	*Movements Limited to 7,000 Annually*
January 2023	526	156.125	308
February 2023	504	148.625	326
March 2023	663	144.750	349
April 2023	857	197.750	524
May 2023	942	209.000	571
June 2023	917	188.375	529
July 2023	1071	200.500	565
August 2023	994	208.125	557
September 2023	904	200.500	543
October 2023	850	192.250	555
November 2023	491	130.250	347
December 2023	560	142.625	317
QTR Total	**1,901**	**465.125**	**1,219**
Total for preceding 12 months	*9,279*	*2118.875*	*5,491*

1.4.4 Dispensations

In March 2023, LLA started to dispense movements in line with the Section 106 agreement. LLA submitted a Dispensation Policy to the Local Planning Authority to dispense (remove) movements from the night-time movement limit, night time QC limit and early morning movement limit.

The table below shows the number of movements dispensed in October to December 2023. These have not been reported in the table in section 1.4.3.

	Night Dispensations
October 2023	130
November 2023	71
December 2023	148
Total	**349**

The table below also show the reasons for the dispensation, in line with the S106 list of acceptable reasons for dispensation.

Reason for Dispensation	Number of Dispensations
Weather	243
Passenger Hardship	83
Air Traffic Disruption	23
Diversions	0
Emergencies	0
Total	**349**

1.5 Day/Night Ratio of Movements - Actual

There were 3,842 night operations during the quarter (compared to 3,852 for the same quarter last year), an average 42.6 movements per night (compared to 42.8 last year). Arriving aircraft accounted for 48% of total night movements, relating primarily to the last rotation of Luton based passenger aircraft scheduled to land between 23:00 and midnight local. 74.7% of total night departures took off between 06:00 – 07:00 hours local. The average ratio of total aircraft operations during the quarter was 87.5% day / 12.5% night (in comparison to 87% day / 13% night over the same quarter last year).

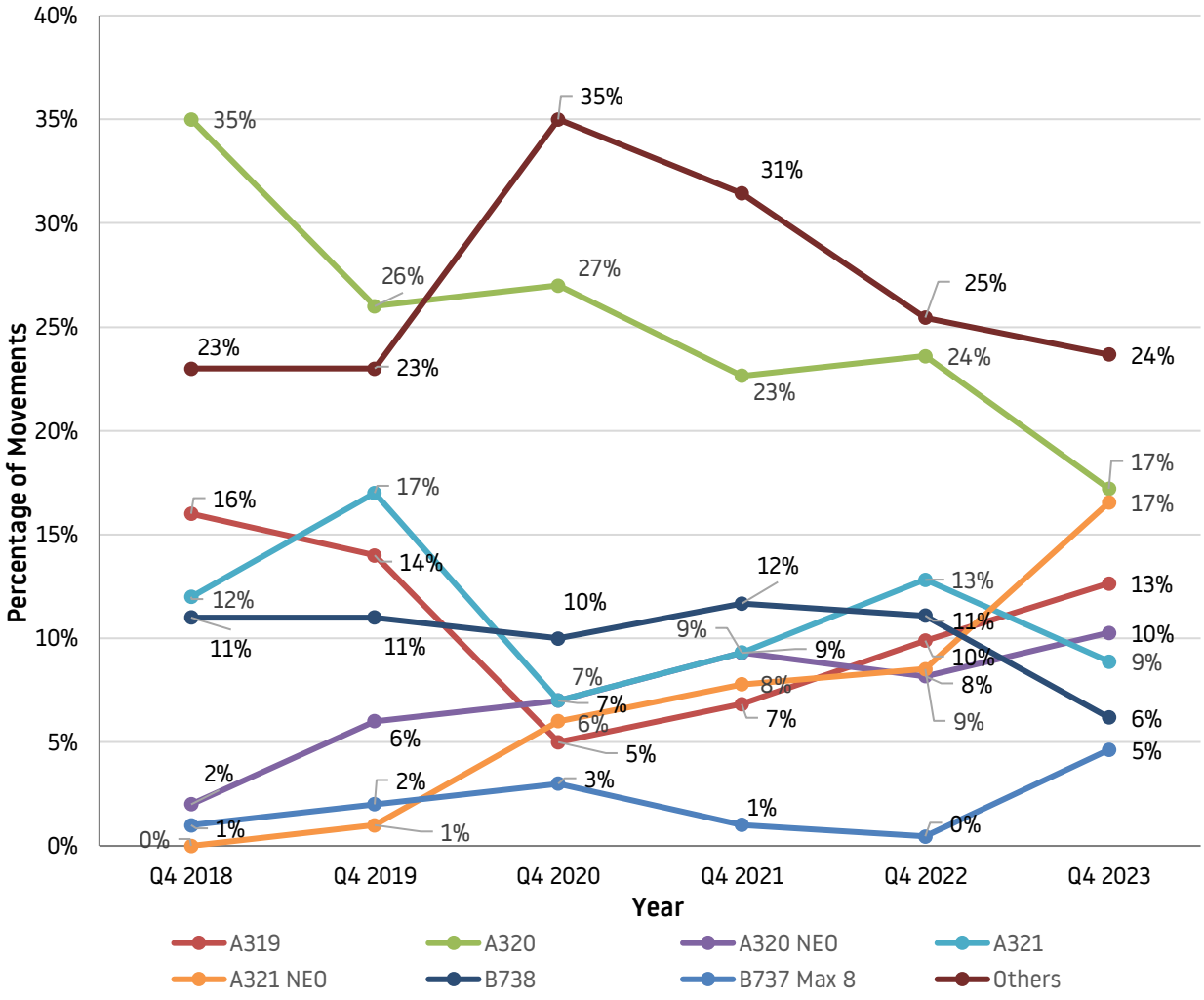
	Day Movements (0700-2259)			**Night Movements (2300-0659)**					**Total**
	Day movements			*Night Quota Period (2330-0559)*		*Early Morning Shoulder (0600-0659)*		*Total Night Movements (2300 – 0659)*	
	A	D	Total	A	D	A	D		
January 2023	3,716	3,812	7,528	411	122	27	290	992	**8,520**
February 2023	3,863	3,919	7,782	384	124	28	305	993	**8,775**
March 2023	4,340	4,521	8,861	518	150	15	340	1,191	**10,052**
April 2023	4,522	4,651	9,173	712	150	19	515	1,563	**10,736**
May 2023	4,962	5,168	10,130	798	151	13	565	1,709	**11,839**
June 2023	5,041	5,208	10,249	782	140	0	539	1,654	**11,903**
July 2023	5,205	5,406	10,611	885	193	5	564	1,883	**12,494**
August 2023	4,939	5,130	10,069	822	179	6	557	1,741	**11,810**
September 2023	4,950	5,157	10,107	773	139	3	546	1,648	**11,755**
October 2023	4,828	4,951	9,779	691	162	28	537	1,641	**11,420**
November 2023	3,949	3,999	7,948	361	135	27	357	990	**8,938**
December 2023	4,421	4,573	8,994	499	149	19	393	1,211	**10,205**
QTR Total	**13,198**	**13,523**	**26,721**	**1,551**	**446**	**74**	**1,315**	**3,842**	**30,563**
Total for preceding 12 months	*54,736*	*56,495*	*111,231*	*7,636*	*1,794*	*190*	*5,508*	*17,216*	***128,447***

1.6 Day/Night Ratio of Movements – Forecast

2024 Forecast of Aircraft Movements					
	Day Movements (0700 – 2259hrs)	*Night Quota Period (2330-0559) Limited to 9,650*	*Early Morning Shoulder (0600-0659) Limited to 7,000*	*Total Night Movements (2300-0659hrs)*	*Total*
January 2024	8,004	548	339	1,057	**9,061**
February 2024	8,270	511	358	1,053	**9,323**
March 2024	9,127	685	366	1,234	**10,361**
April 2024	9,702	834	565	1,655	**11,357**
May 2024	10,366	971	588	1,751	**12,117**
June 2024	10,679	932	584	1,724	**12,403**
July 2024	10,928	1,129	651	1,925	**12,853**
August 2024	10,300	1,052	574	1,776	**12,076**
September 2024	10,395	924	571	1,699	**12,094**
October 2024	10,084	859	582	1,678	**11,762**
November 2024	8,149	502	361	1,014	**9,163**
December 2024	9,442	649	413	1,275	**10,717**
Total for following 12 months	*115,446*	*9,596*	*5,952*	*17,841*	***133,287***

1.7 Aircraft Movements by Type

The graph below shows the percentage of aircraft movements for the main aircraft types that operated at LLA. For data comparison, the data covers the last five years. During Q4 2023, there was an increase in the utilisation of A321NEO and B737MAX, compared with the same period last year.



2 DEPARTING AIRCRAFT

2.1 Departure Route Analysis

The following table reports the average and total number of departures for each flight route, differentiating between easterly (07) and westerly (25) operations. The night movements quoted below departed between 23:00 and 06:59 hours local.

		Departures										Total
		MATCH/DETLING			*RODNI*		*OLNEY*		*Other**		*Helicopter*	
		07	25 Conv	25 RNAV	07	25	07	25	07	25	HELI	
Oct 2023	Daytime	641	9	1,974	379	1,227	159	524	10	17	14	**4,954**
	Night-time	113	0	305	85	185	25	44	2	0	0	**759**
Nov 2023	Daytime	359	6	1,765	177	951	120	569	6	27	19	**3,999**
	Night-time	60	1	241	27	117	8	22	0	2	1	**479**
Dec 2023	Daytime	345	2	2,106	169	1,213	114	582	9	21	12	**4,573**
	Night-time	43	1	279	22	158	5	42	1	3	0	**554**
QTR	**Total**	**1,561**	**19**	**6,670**	**859**	**3,851**	**431**	**1,783**	**28**	**70**	**46**	**15,318**
	Daily Average	*17*	*<1*	*73*	*9*	*42*	*5*	*19*	*<1*	*<1*	*<1*	*166*

2.2 Departure – Track Keeping

All propeller-driven aircraft with Maximum Take Off Mass (MTOM) over 5,700kg and all jet aircraft leaving London Luton Airport are required to follow specific departure routes known as Noise Preferential Routes (NPRs). An NPR is a corridor three kilometres wide (2km for the RNAV route), within which aircraft are deemed to be flying on track. Once an aircraft has cleared the designated NPR zone Air Traffic Control (ATC) can instruct the pilots to fly a more direct heading towards their destination. This is known as vectoring.

The obligations of NPRs for conventional departure routes (SIDs) cease when a height of 3,000ft AMSL (between 07:00hrs to 23:00hrs local time) and 4,000ft AMSL (during night-time, 23:00 to 06:59 hours local time) has been reached. The obligations of the RNAV1 NPR ceases when a height of 4,000ft AMSL has been reached at all times.

We are working hard to reduce the noise and environmental impact on neighbouring areas. In April 2015 London Luton Airport implemented a Track Violation Penalty Scheme resulting in fines for aircraft that leave the corridor before reaching the required altitude. Using the current Aircraft Noise and Track Monitoring System the airport's Flight Operations Department evaluates and investigates radar tracks with required input from Air Traffic Control (ATC) and airlines. When the aircraft is clearly flying outside the corridor the aircraft is identified as causing a "possible" track violation.

As always, safety prevails and there may be cases which involve vectoring an aircraft sooner than at the NPR height restriction. When there is valid justification for a deviation from the track, the operator in question will be exempt from the fine. Valid justifications include:

- Safety or operational reasons
- Weather avoidance
- Emergencies

* *This category relates to Test/Training flights or short positioning flights.*

The table below shows track keeping violations over the previous three-month period. The on-track performance for the quarter was 97.8%. This calculation includes deviations for weather and traffic avoidance, as well as deviations classed as violations. The breakdown of these violations is shown in the table below.

	Number of Violations	Total Penalties Collected
October 2023	6	£10,000
November 2023	7	£9,000
December 2023	3	£5,000
QTR	**16**	**£24,000**

	Airline or Aircraft Operator	Aircraft Type/Occurrence
October 2023	Airline and privately owned aircraft	A320, A20N x2, C56X and GLEX x2
November 2023	Airline and privately owned aircraft	A320 x2, A21N, B38M, E135, E55P and PC24
December 2023	Airline and privately owned aircraft	A321, LJ60 and GLF4

3 ARRIVING AIRCRAFT

3.1 Arrivals Route Analysis

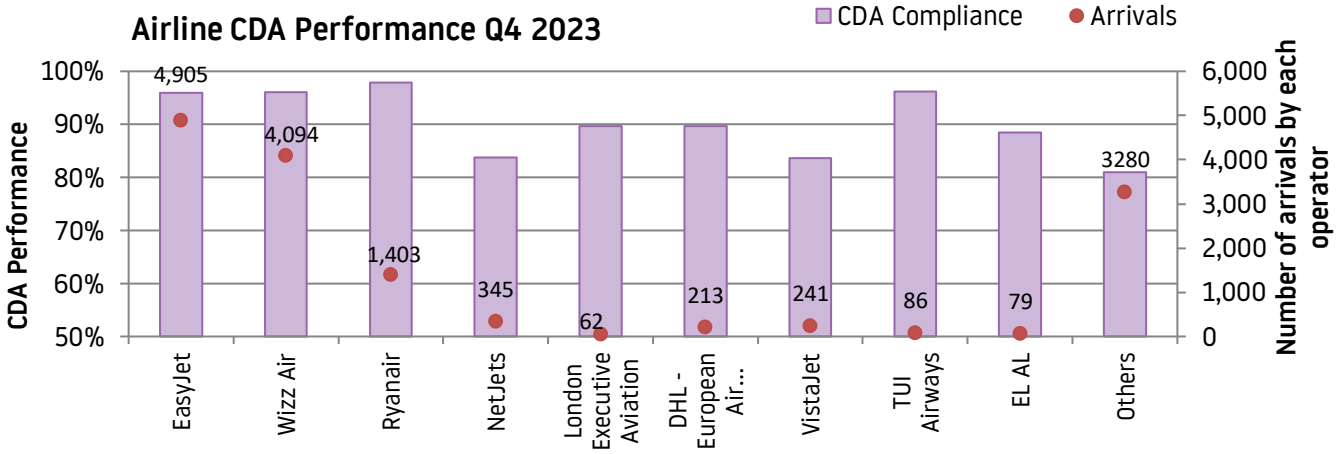
The following table reports the total number of arrivals differentiating between easterly (07), westerly (25) operations and helicopters.

		Arrivals			Total
		07	*25*	*Heli*	
October 2023	Daytime	1,163	3,659	8	**4,830**
	Night-time	186	713	0	**900**
November 2023	Daytime	617	3.318	16	**3,951**
	Night-time	89	429	1	**519**
December 2023	Daytime	637	3,777	9	**4,423**
	Night-time	123	553	0	**676**
QTR	**Total**	**2,815**	**9,134**	**34**	**15,299**
	Daily Average	*31*	*99*	*<1*	*166*

The table below shows the percentage of flights that achieved a Continuous Descent Approach (CDA), which involves continuous descent with no more than one section of level flight greater than 2.5nm in length following descent from an altitude of 5,000ft.

	All Arrivals			07 Easterly Arrivals			25 Westerly Arrivals		
	% CDA			*% CDA*			*% CDA*		
	Total	*Day*	*Night*	*Total*	*Day*	*Night*	*Total*	*Day*	*Night*
October 2023	**94%**	94%	92%	**96%**	96%	94%	**93%**	94%	91%
November 2023	**92%**	92%	89%	**95%**	96%	88%	**91%**	91%	89%
December 2023	**91%**	91%	91%	**95%**	95%	93%	**91%**	91%	90%
QTR Total	**92%**	93%	91%	**96%**	96%	93%	**92%**	92%	90%

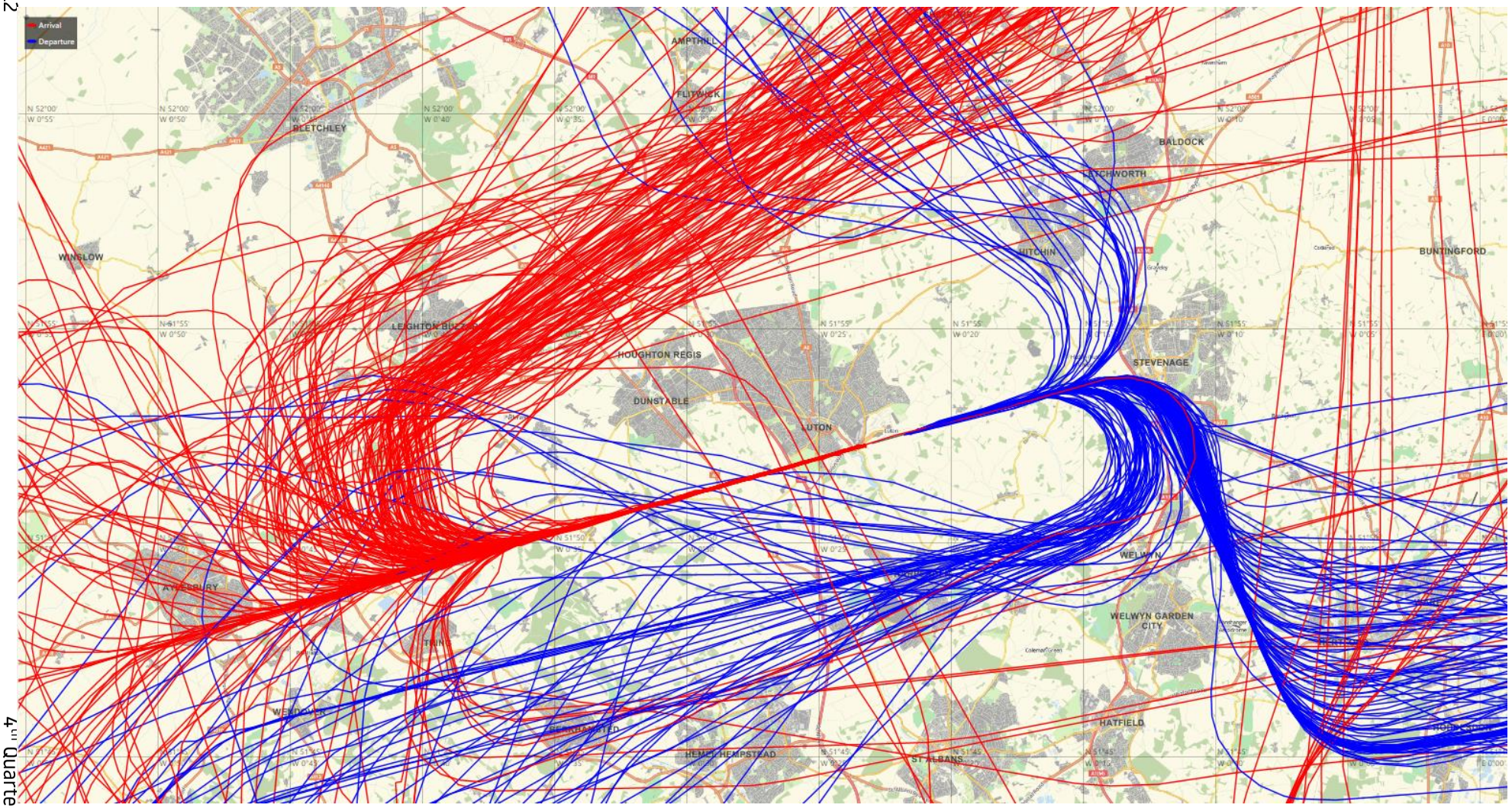
The overall CDA achievement was 92% with several major LLA operators achieving high performance.



The maps overleaf, produced from the Topsonic Aircraft Noise & Track Monitoring System, identify samples of actual flown aircraft tracks operating from LLA (arrivals and departures during both easterly and westerly operations) over a typical 24-hour period within the fourth quarter of 2023.

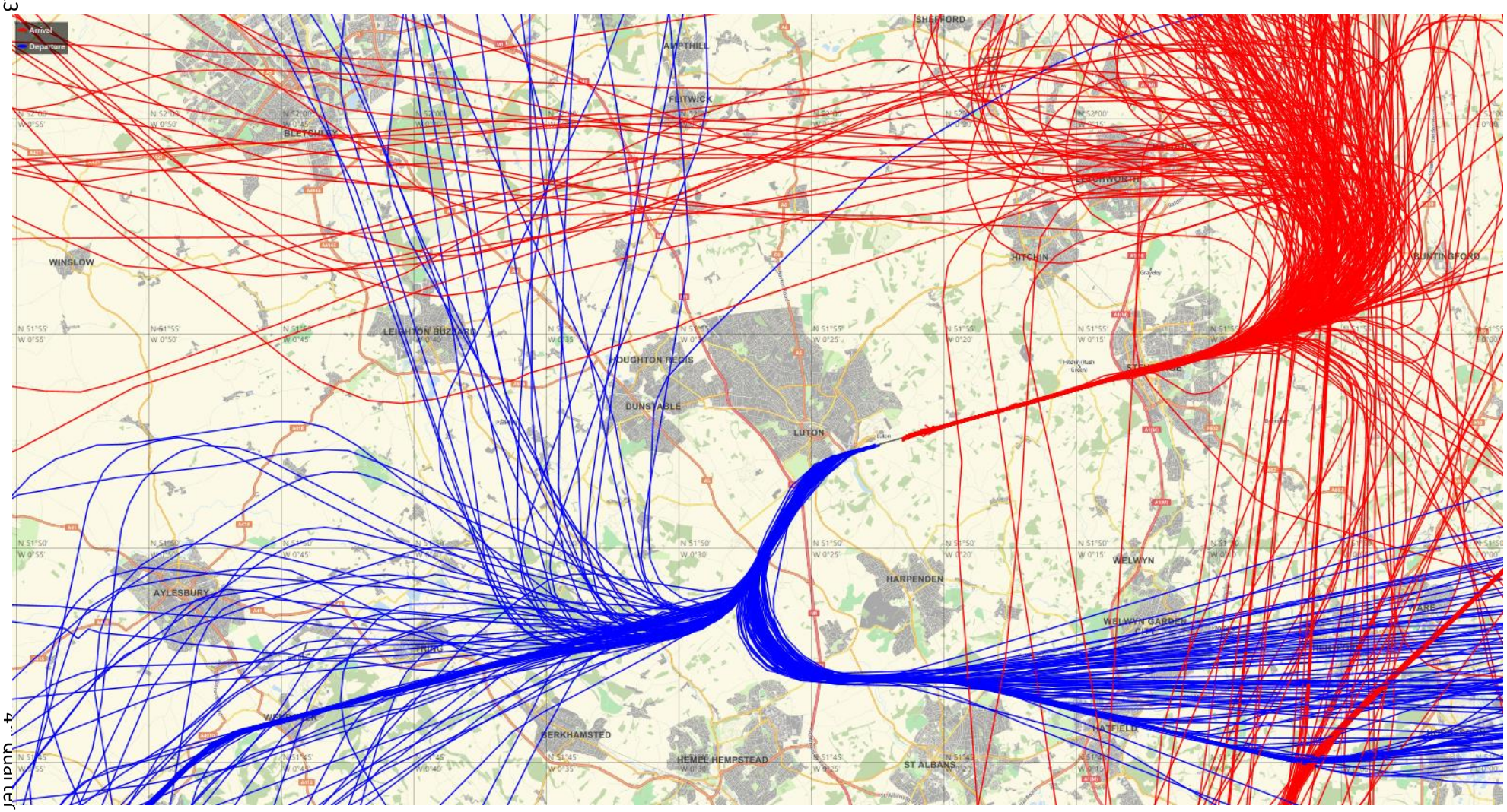
LLA Flight Routes
Sample Easterly Operations

Key:
Departures in Blue
Arrivals in Red

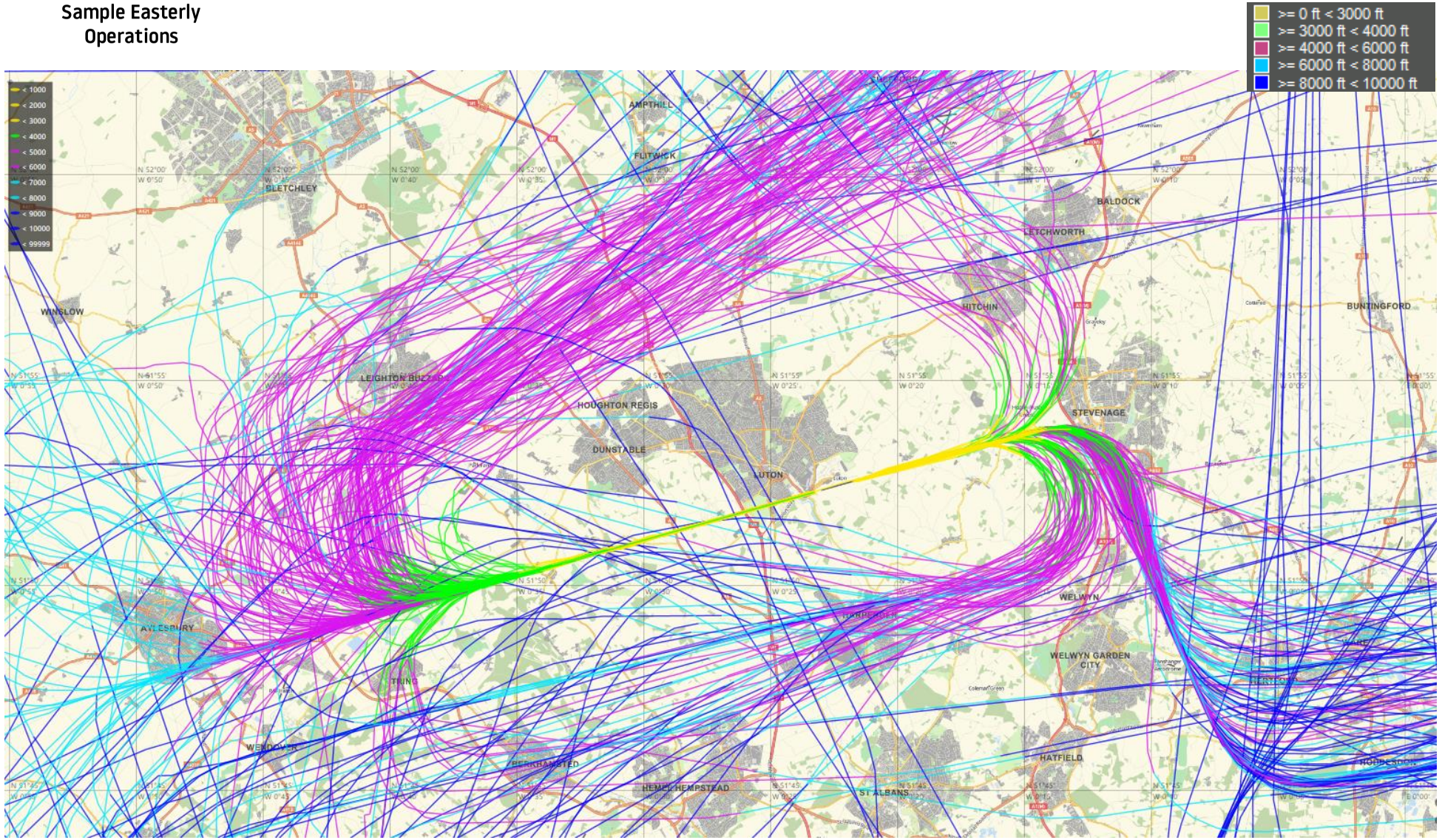


LLA Flight Routes
Sample Westerly
Operations

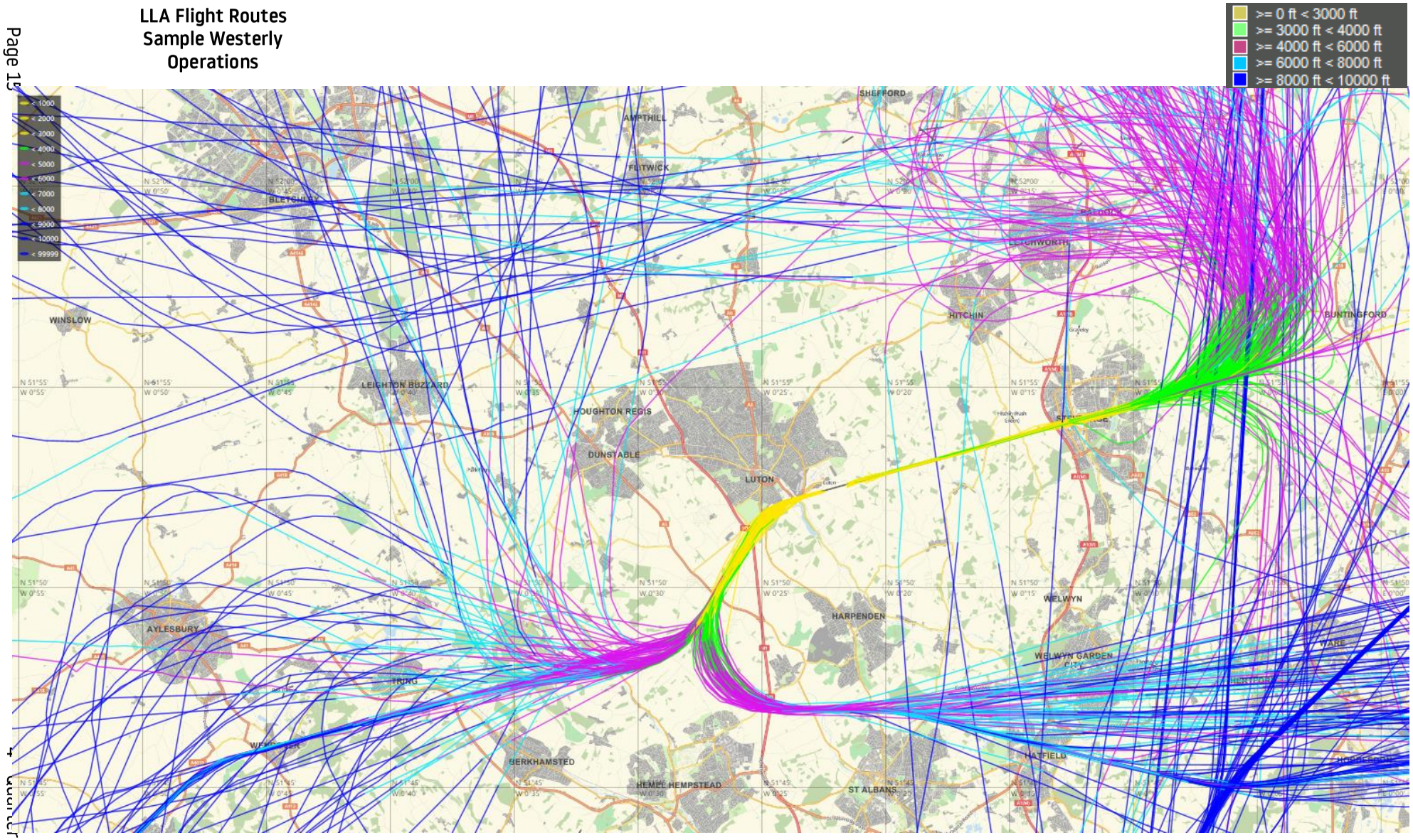
Key:
Departures in Blue
Arrivals in Red



LLA Flight Routes
Sample Easterly Operations



LLA Flight Routes
Sample Westerly
Operations



4 AIRCRAFT NOISE

During the 4th Quarter of 2023, the maximum noise levels less than 79 dB(A) was recorded by 99.4% of correlated departing aircraft.

The maximum noise level of less than 76 dB(A) was recorded by 88.32% of correlated departing aircraft.

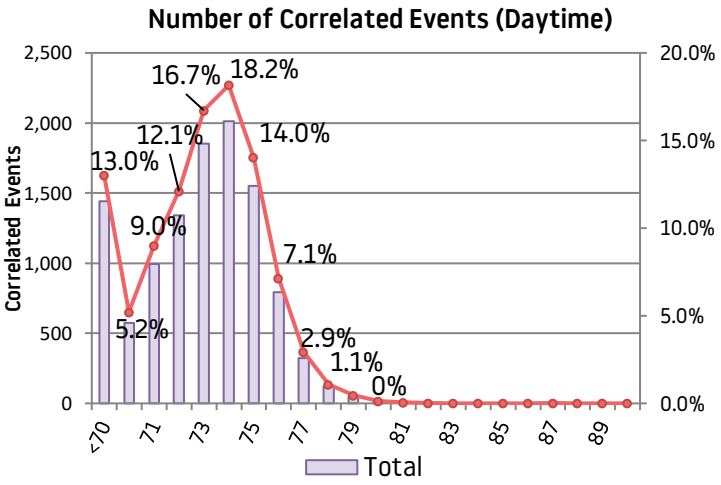
There were five noise violations in Q4 2023. Details of these violations are outlined in Section 4.4.

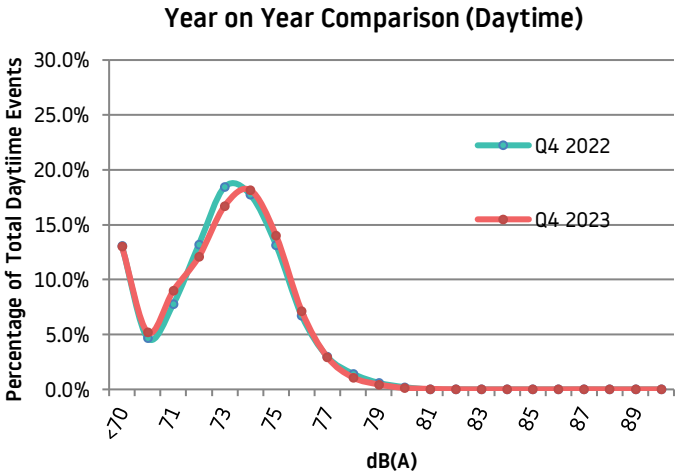
4.1 Daytime Noise Levels – October to December 2023

The following table identifies daytime noise levels correlated to departing aircraft at the fixed noise monitoring terminals. (*Any aircraft exceeding the Daytime Noise Violation Limit of 80dB(A), between 07:00 and 22:59 hours local, is fined accordingly*)

	db. (A)#	Oct	Nov	Dec	QTR
Number of Correlated Events (Daytime)	<70	563	424	454	**1,441**
	70	227	164	185	**576**
	71	436	301	259	**996**
	72	548	388	405	**1,341**
	73	762	498	592	**1,852**
	74	754	654	603	**2,011**
	75	505	575	473	**1,553**
	76	257	280	254	**791**
	77	123	112	90	**325**
	78	49	40	31	**120**
	79	22	11	17	**50**
	80	2	5	7	**14**
	81	2	2	1	**5**
	82	0	1	0	**1**
	83	0	0	0	**0**
	84	0	0	0	**0**
	85	0	0	0	**0**
	86	0	0	0	**0**
	87	1	0	0	**1**
	88	0	0	0	**0**
	89	0	0	0	**0**
	>90	0	0	0	**0**
Total		**4,251**	**3,455**	**3,371**	**11,077**

 # Rounded Result



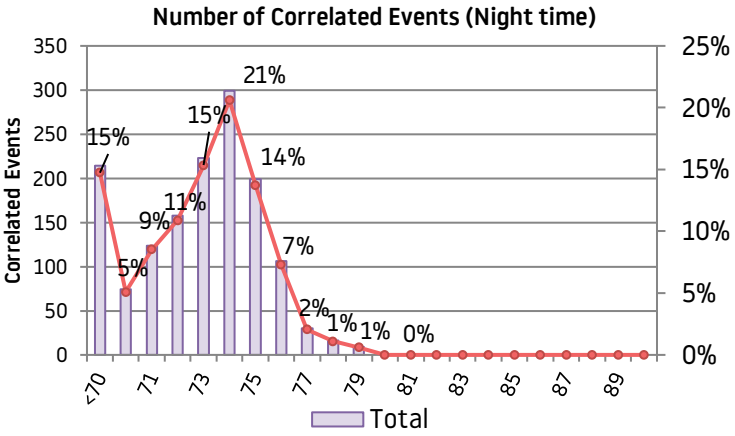


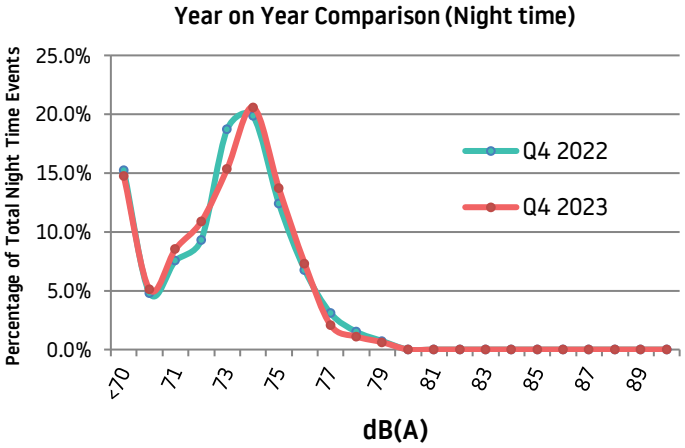
4.2 Night Noise Levels – October to December 2023

The following table identifies the night noise levels correlated to departing aircraft at the fixed noise monitor terminals. *(Any aircraft exceeding the Night Noise Violation Limit of 79dB(A), between 23:00 hrs and 06:59 hours local, is fined accordingly)*

	db (A) #	Oct	Nov	Dec	QTR
Number of Correlated Events (Night time)	<70	93	54	67	214
	70	30	19	25	74
	71	70	29	25	124
	72	82	35	41	158
	73	109	67	47	223
	74	112	96	91	299
	75	90	56	53	199
	76	48	37	21	106
	77	16	7	7	30
	78	6	7	3	16
	79	3	4	2	9
	80	0	0	0	0
	81	0	0	0	0
	82	0	0	0	0
	83	0	0	0	0
	84	0	0	0	0
	85	0	0	0	0
	86	0	0	0	0
	87	0	0	0	0
	88	0	0	0	0
	89	0	0	0	0
	>90	0	0	0	0
Total		**659**	**411**	**382**	**1,452**

#Rounded Result





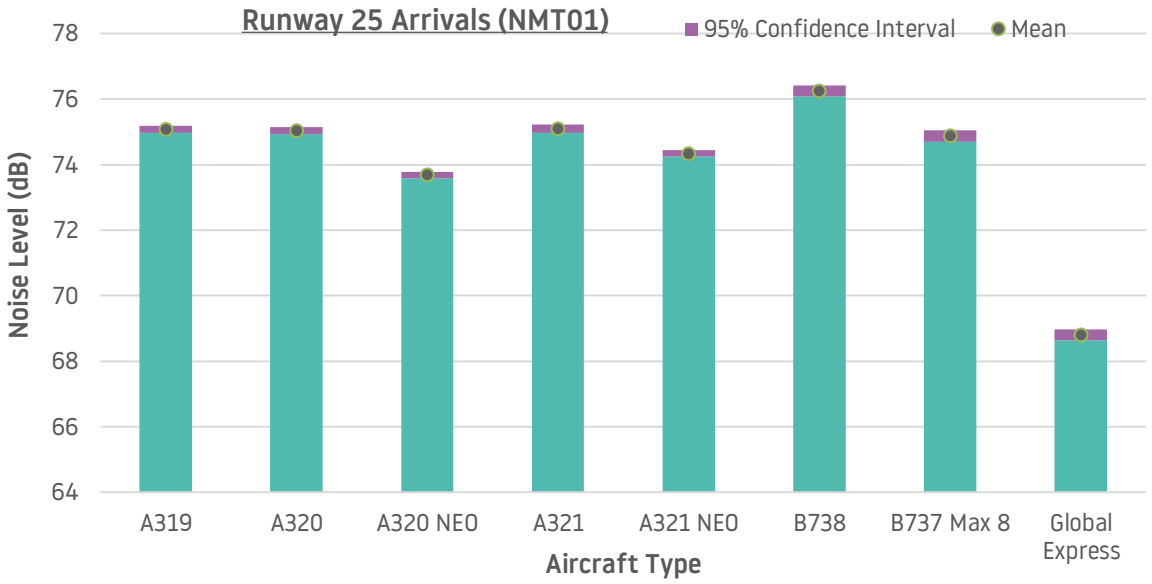
N.B It should be noted that the detection thresholds for the noise monitoring terminals are set at the lowest level to record the maximum number of aircraft noise events. A number of smaller aircraft types, such as business jets and propeller aircraft, get very close to but do not reach the detection threshold.

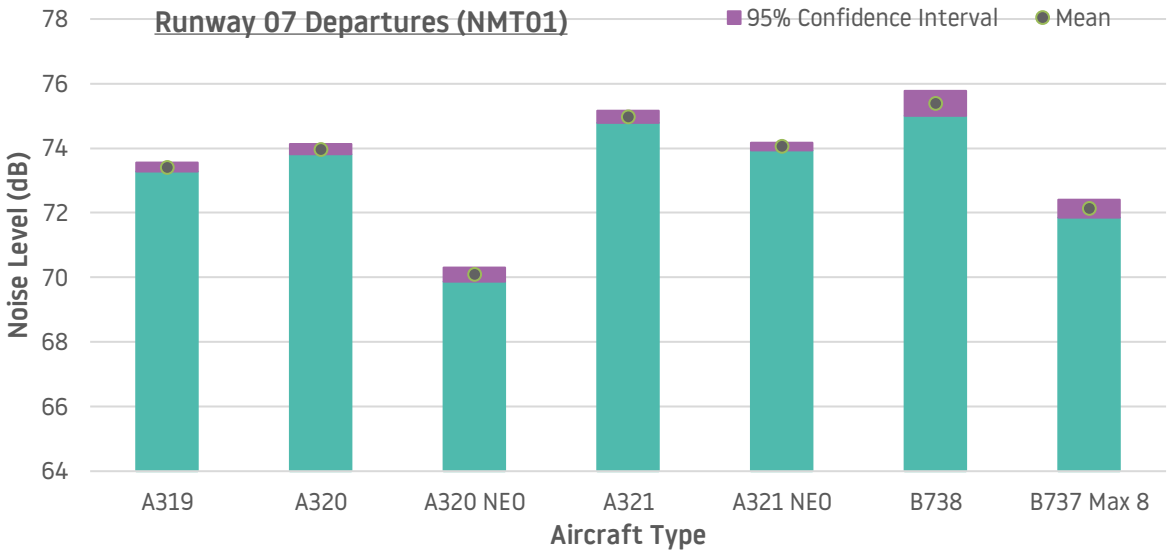
Ambient background noise is also an important factor as specific incidents such as loud road traffic, emergency vehicle sirens, lawn mowers, drills etc. can register noise levels louder than an aircraft overhead. This results in not all aircraft movements being correlated to noise events. Generally, the louder noise events have more certainty of being correlated with aircraft movements.

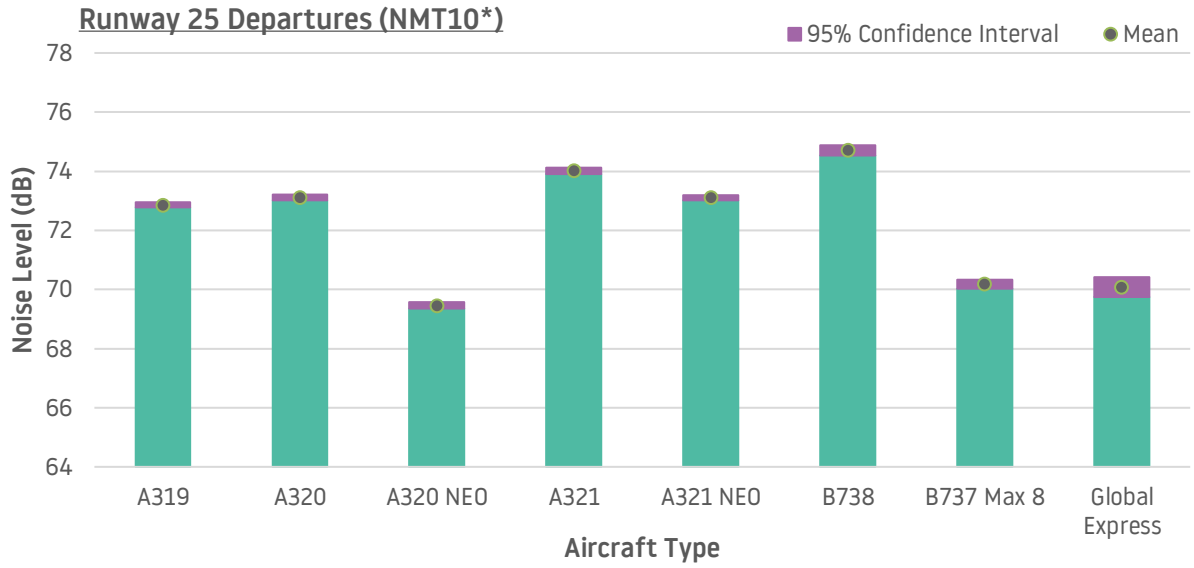
Weather conditions can also affect the number of noise monitoring events recorded in the table; for example, if winds are greater than 10m/s, results from noise monitors will be invalid and therefore will not be considered.

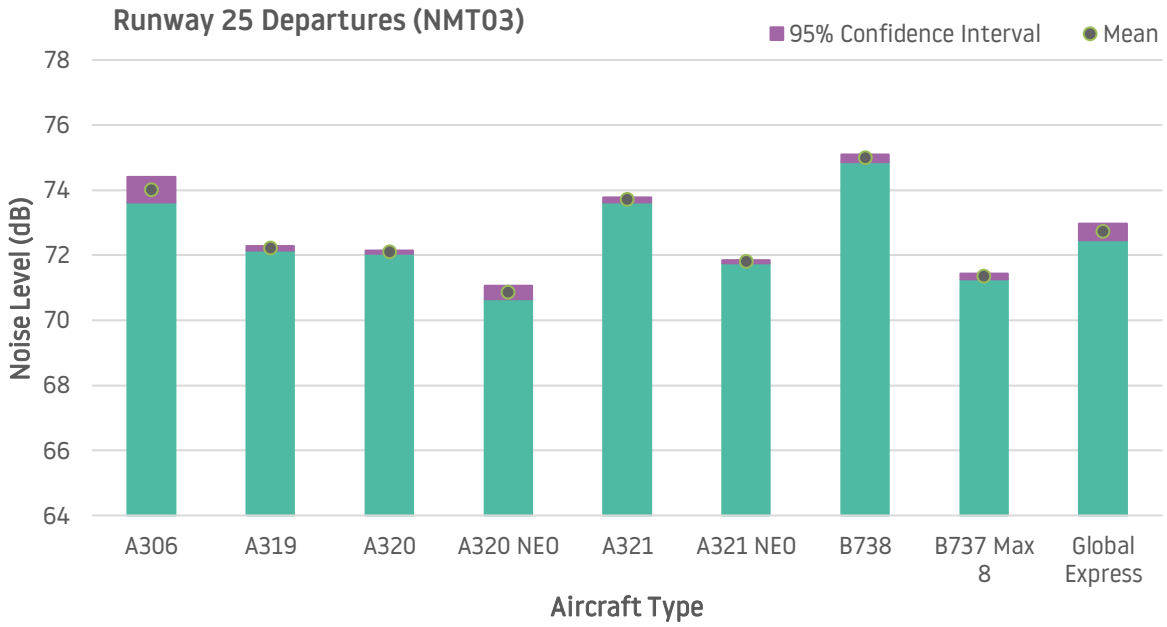
4.3 Average Noise Monitor results by Aircraft Type (Q4 2023)

The following graphs show the average noise and confidence level (95%) for the three fixed noise monitors for the period October to December 2023. These are also split by the main aircraft types operating at LLA.









The table below shows the sample sizes used for the graphs in this section. For comparative purposes, we recommend a sample size of over 100 results are used. Therefore, only aircraft types with a sample size of over 100 have been shown.

	A306	A319	A320	A320 NEO	A321	A321 NEO	B738	B737 Max 8	Global Express
NMT01 (Arr)	95	1516	2080	1250	1075	2034	733	559	340
NMT01 (Dep)	27	359	477	276	266	463	175	124	95
NMT10* (Dep)	87	1338	1835	1044	940	1747	652	488	223
NMT03 (Dep)	101	1513	1930	94	1098	1786	826	434	169

**The fixed noise monitor NMT02 has been replaced with NMT10.*

4.4 Noise Violations during Quarter 4 (October to December 2023)

There were five noise violations during the period. Each violation was fined £1,000 for daytime period.

	Date/Time (Local)	Aircraft Type	Noise Level
Day	12/10/2023 09:04	A320	80.8dB
Day	19/10/2023 22:51	B738	81.3dB
Day	05/11/2023 09:51	B738	81.0dB
Day	16/11/2023 14:16	FA7X	81.0dB
Day	24/11/2023 10:10	B738	82.1dB
Total Penalties Collected			**£5,000**

4.5 Noise Insulation Scheme Update

Our Noise Insulation Scheme aims to assist in reducing the noise for properties in our local communities. The scheme covers both residential and non-residential properties. Depending on any existing insulation in the property, double glazing, secondary glazing and ventilation units and loft insulation can be provided. Rooms eligible for insulation include living rooms, bedrooms, dining rooms and kitchen-diners. The uptake from the last batch of letters sent out in Q2 has had a higher uptake than usual, we have sent out a total 277 letters. 152 properties accepted and 95 properties were insulated.

As a result of this, our annual budget has been met much earlier than expected and no further properties have been insulated in Q3 or Q4. The additional properties that have already accepted this year, will be insulated as a priority in 2024.

5 NOISE CONTOURS

5.1 Night Noise Contours – Q4 2023

5.1.1 Contour Production

Aircraft movement data for use in the contour production has been supplied by LLAOL. The contour production methodology is the same as that used to produce the 2023 Q4 contours, with terrain data allowed for and the contours produced using the INM software (Version 7.0d). The validation is based on measured results in 2022 at the fixed noise monitors with departure profiles for key aircraft types based on radar data.

5.1.2 Noise Contour Results

The resulting noise contours are shown in the attached Figure A11060-NN23-Q3 at values from 48 to 66 dB LAeq,8h. Contours at 69 and 72 dB LAeq,8h have also been produced but are not individually distinguishable when plotted at the scale of the figure. The area of each noise contour is given in Table 1 below and compared with the values for the previous quarter (July - September 2023), and the equivalent quarter during the previous year (October – December 2022).

Contour Value (dB $L_{Aeq,8h}$)	**Contour Area (km^2)**		
	Oct – Dec 2022	*Jul - Sep 2023*	*Oct – Dec 2023*
48	26.2	32.7	25.2
51	14.7	18.8	14.2
54	7.7	10.0	7.6
57	4.5	5.6	4.5
60	2.4	3.1	2.4
63	1.2	1.5	1.2
66	0.7	0.9	0.7
69	0.5	0.5	0.5
72	0.3	0.3	0.3
W/E Split (%)	80/20	82/18	80/20

Table 1: Area of Night Noise Contours

5.1.3 Aircraft Movements

The aircraft movements for the night noise contours as supplied by LLAOL are summarised in Table 2 below and compared with the movements from the previous quarter and the equivalent quarter in the previous year. Only aircraft types with at least 10 movements have been presented. For aircraft types with less than 10 movements in a period or types that were not explicitly presented in previous periods, 'n/a' is shown.

INM Aircraft Type	Oct – Dec 2022	Jul – Sep 2023	Oct – Dec 2023
737800	504	393	171
737800 (max)	n/a	315	230
757RR	234	229	216
A300-622R	94	80	96
A319-131	256	731	291
A320-211 (ceo)	806	967	373
A320-211 (neo)	380	1,084	508
A321-232 (ceo)	577	372	388
A321-232 (neo)	361	983	955
A330-301	13	n/a	n/a
BEC58P	14	n/a	n/a
CL600	17	n/a	n/a
CL601	38	12	50
CNA208	16	16	17
CNA525C	19	n/a	19
CNA55B	14	n/a	11
CNA560XL	19	n/a	19
CNA680	n/a	n/a	12
CNA750	11	n/a	n/a
EMB145	30	n/a	29
EMB190	n/a	n/a	10
F10062	63	n/a	45
GIV	13	n/a	19
GV	312	31	308
LEAR35	10	n/a	10
Other	47	58	49
Total	3,848	5,721	3,839

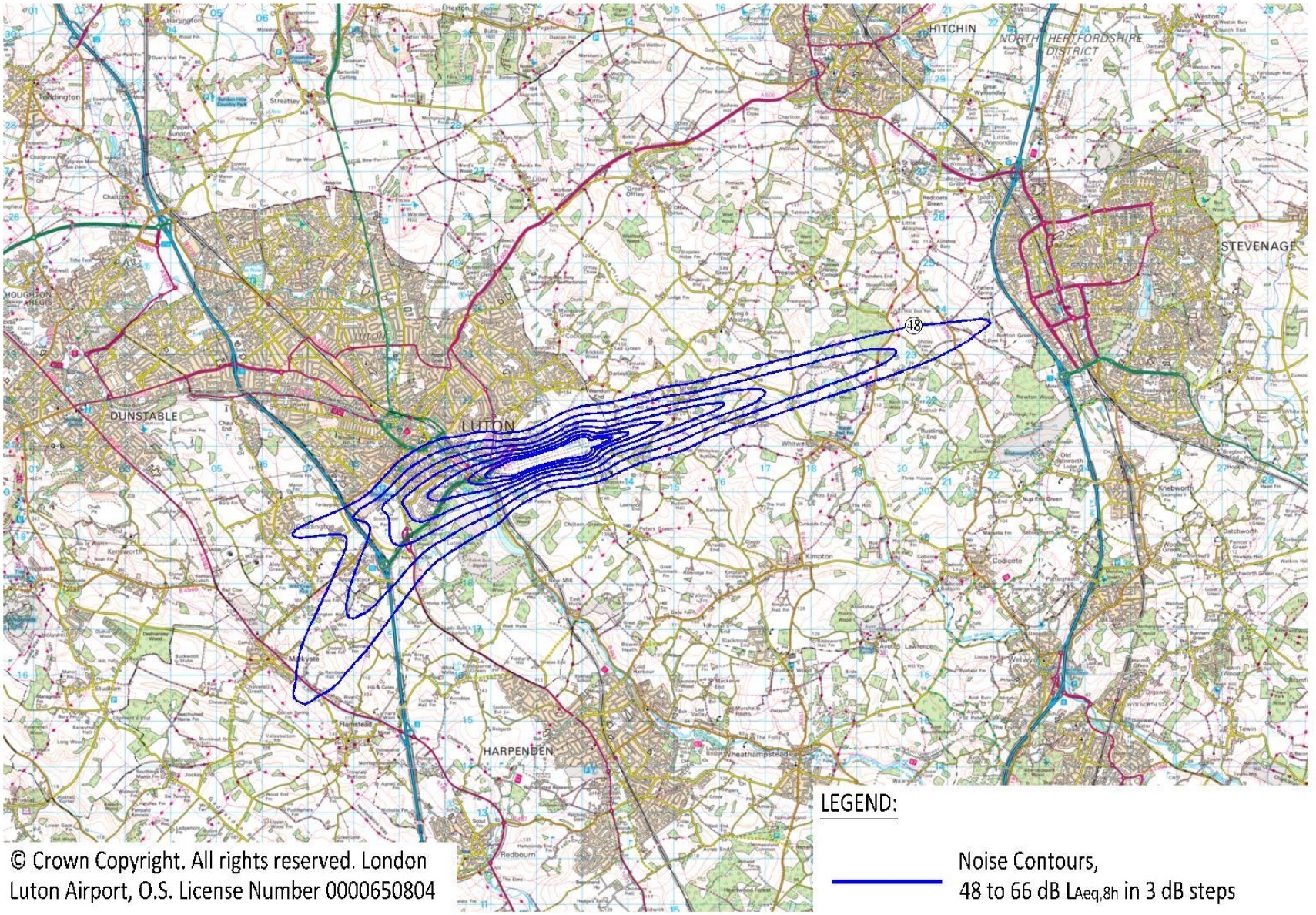
Table 2: Night-time Aircraft Movement Numbers by Aircraft Type

5.1.4 Noise Contour Comparison

The number of movements in 2023 Q4 is very similar to that in the same quarter in 2022. The overall fleet mix has changed with the proportion of flights by quieter modernised aircraft types having increased from 19% in 2022 Q4 to 44% in 2023 Q4. One of the clearest changes relates to the Boeing 737800 where in 2022 very few were the modernised (MAX) type, but in 2023 Q4 there were almost 60%. In 2023 Q4 the majority of both the Airbus A320 and Airbus A321 operations were also by modernised types.

The area of the 48 dB(A) noise contour has reduced slightly compared to the same quarter last year, due to the greater use of quieter modernised aircraft types. The shape of the contours has also remained similar.

The number of movements and therefore the area of the noise contours has decreased compared to the previous quarter (July - September 2023).



6 COMPLAINTS

6.1 Total Complaints relating to LLA aircraft operations

	4th QTR 2023	4th QTR 2022
Total No. of Complaints relating to LLA aircraft operations	1,647	2,365
No. of Complainants	82	142
No. of General Complaints	127	216
No. of Specific Complaints	1,520	2,149
Average No. of Complaints per Complainant	20	16.7
No. of Aircraft Movements per Complaint	18.6	12.1

A total of 1,647 complaints relating to LLA aircraft operations were received by the Flight Operations Department during the fourth quarter of 2023. This is compared to 2,365 complaints received for the same period in 2022. It should be noted that during the fourth quarter of 2023, 97% of complaints were received from 10 individuals.

The monthly breakdown of total complaints relating to LLA aircraft operations is as follows:

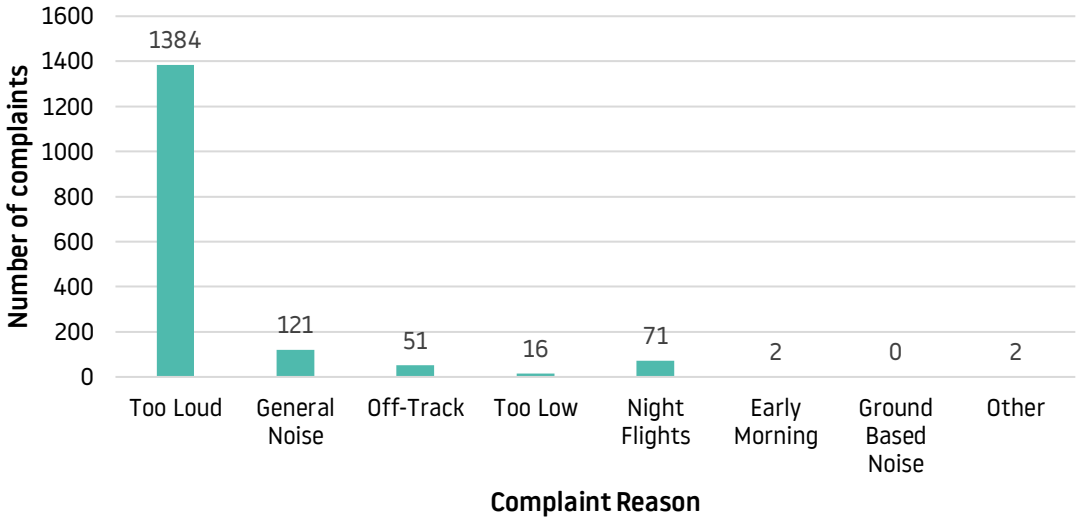
October 2023	714 complaints (642 Specific Complaints, 72 General Complaints)
November 2023	380 complaints (348 Specific Complaints, 32 General Complaints)
December 2023	553 complaints (530 Specific Complaints, 23 General Complaints)

A further 18 complaints not attributable to LLA traffic were received throughout the quarter, compared to 6 complaints for the period October to December 2022.

Out of 82 total complainants, 42 contacted the airport only once meaning, 40 complainants generated 1,605 complaints.

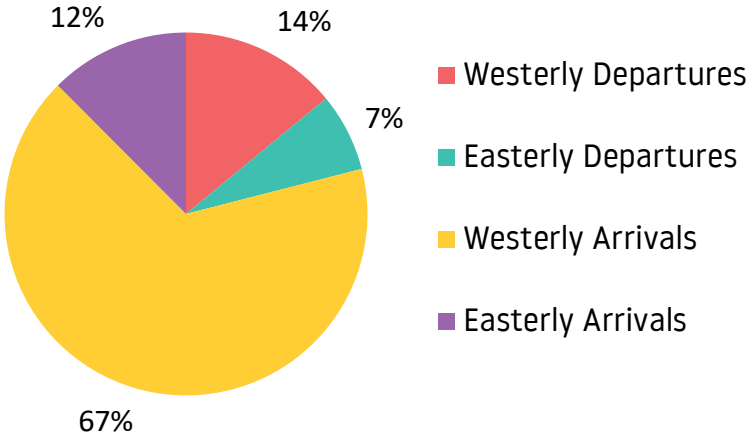
6.2 Type of Complaint

The types of complaint received by the Flight Operations Department from October to December 2023 are listed below.



6.3 Nature of Disturbance

The chart represents the areas of concern reported from specific complaints regarding aircraft activity during the period October to December 2023.



Within the 235 specific aircraft complaints concerning westerly departures, 230 complaints involved aircraft on the Match/Detling heading, 3 related to aircraft using the Olney route and 2 complaints were recorded about aircraft following Rodni or off-airways routing.

Of the 117 complaints attributed to easterly departures, there were 3 aircraft on the Match route and 112 complaints related to aircraft following the Rodni route. There were 2 specific complaints relating to the easterly Olney departure. No complaints were recorded about aircraft following an off-airways routing.

In total the Flight Operations Department received 1,324 specific complaints regarding arrivals. 1,115 of these complaints were about westerly arrivals and a further 209 concerning easterly arrivals. These complaints were mostly regarding the new arrival's airspace change implemented in February 2022.

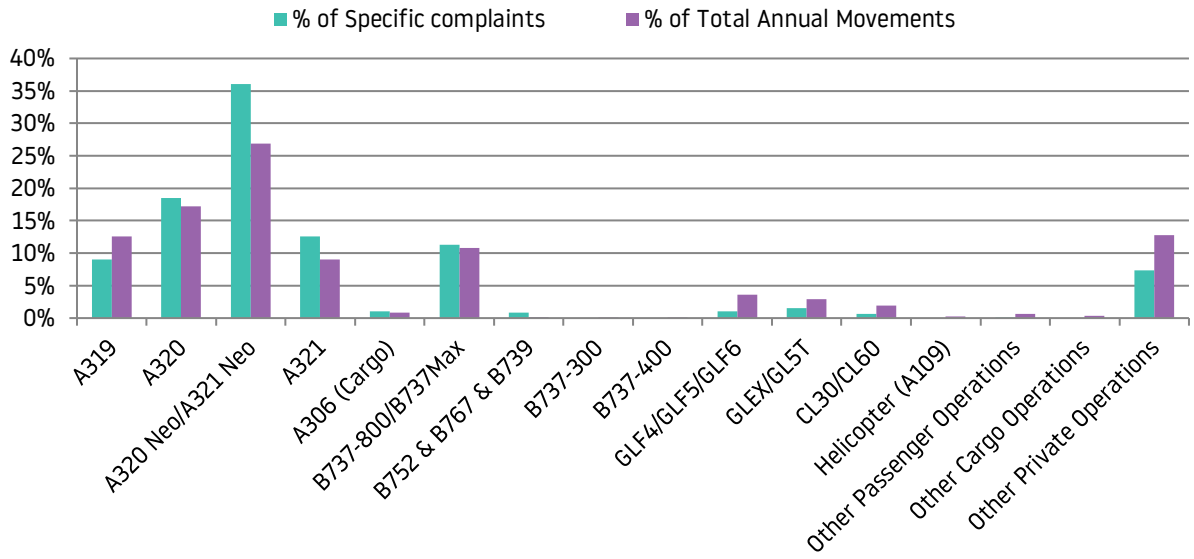
3
Complainants
reported noise disturbance at night (compared to **16 Complainants** for the same Quarter last year)

Arriving aircraft accounted for 100% of the specific night complaints. Cargo flights, involving A306 and B752 aircraft, were reported in 3% of the night complaints, whilst passenger aircraft accounted for 91% of night complaints. Furthermore, 6% of night complaints correlated to executive aircraft.

71 (4%)
Complaints
concerning night noise disturbance from LLA operations

6.4 Complaints by aircraft type

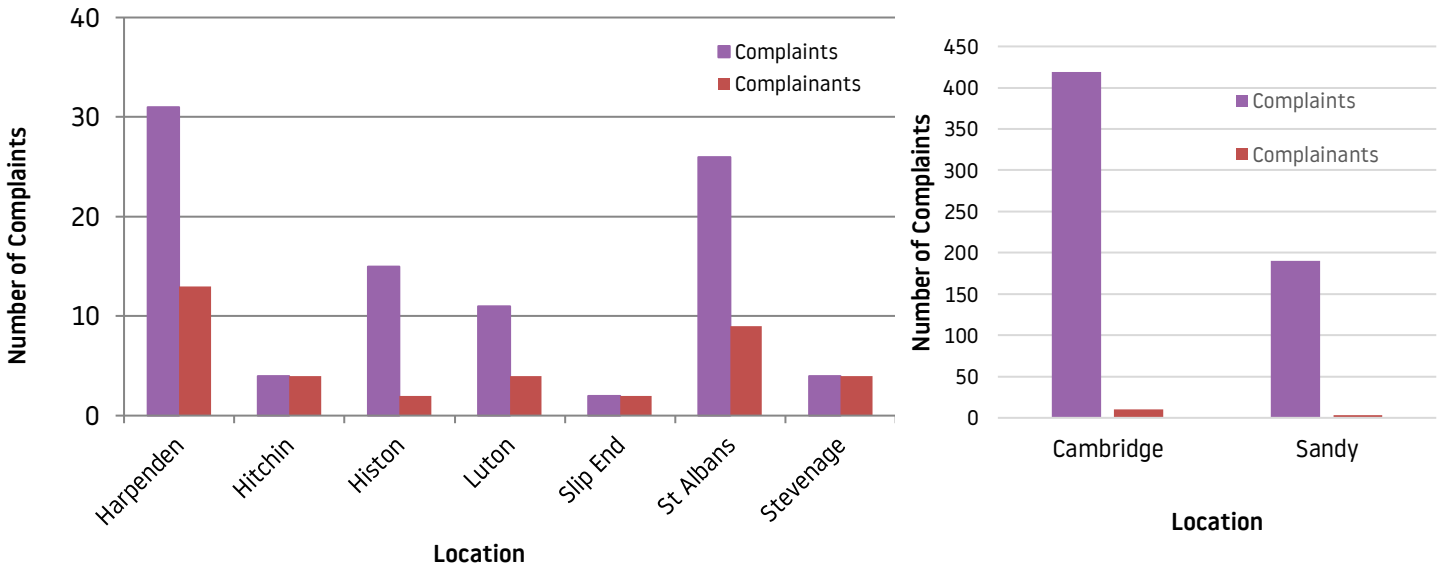
The diagram below shows aircraft types generating specific complaints.



6.5 Origin of Complaints

The chart below identifies the areas around the Airport from which more than one complainant submitted concerns relating to LLA aircraft operations during the period October to December 2023.

The communities with one complainant include: Ayot St Lawrence, Blackmore End, Breachwood Green, Buntingford, Chevington, Croydon, Dry Drayton, Dunstable, Gaddensden Row, Harlow, Henlow, Horningsea, Impington, Kimpton, Knebworth, Markyate, Perry, Tring, Welwyn, Wheathampstead, Whitwell, Wilstead, Wivenhoe.



6.6 Complaints Analysis

During Quarter 4 there has been a significant decrease in complaints and complainants compared to the same quarter last year. This is thought to be due to a number of reasons:

- The Post implementation review (PIR) has come to an end on September 2023 and this had an effect on the number of complaints and complainants decreasing.

- Similar to Q3 2023, some individuals are making multiple complaints. In Q4, 97% of complaints were received from 10 individuals.

6.7 Communication Method

The following table shows the mode of communication used to contact London Luton Airport regarding noise.

Communication Method	% of Total Complaints
Email	32%
Travis	68%

Any concerns relating to aircraft operations associated with London Luton Airport can also be reported to the Flight Operations Department by the following ways:

Postal Address Flight Operations Department
London Luton Airport
Percival House, Percival Way
Luton
Bedfordshire
LU2 9NU

Direct Telephone (01582) 395382 (24 hours)

6.8 Response Time

The following table shows the time taken to respond to complaints submitted by our local communities. We aim to respond to 97% of concerns within eight days and 98% of concerns within 15 days.

Those complaints with longer response times are usually those requiring further investigation with the help of Air Traffic Control. If this is the case, the individual's complaint will be acknowledged and will state that additional investigation is required which may lengthen the response time.

Number of days	% of Total Complaints
0 Days	32.1%
1 Day	30.0%
2 Days	20.4%
3 Days	9.7%
4 Days	2.9%

5 Days	1.3%
6 Days	1.2%
7 Days	0.5%
8 Days	0.4%
9 Days	1.3%
10 Days	0.0%
11 Days	0.1%
12 Days	0.0%
13 Days	0.1%
14 Days	0.1%
15 Days	0.0%
16 Days	0.0%
16 Days+	0.0%

7 COMMUNITY RELATIONS

7.1 Community Visits to Airport

Invitations are often extended to local residents to visit or meet with the Flight Operations Team for a demonstration of the Aircraft Noise & Track Monitoring System, to discuss specific concerns and to view the specific tracks of LLA aircraft operations in their area.

During quarter 4 of 2023, the Flight Operations Team did not have any specific requests to meet with residents or community representatives.

7.2 Airport Visits to the Community

The Flight Operations Team held one Public Surgery during quarter 4 which was on the 16th of November in Breachwood Green.
There were 9 appointments booked. The main themes were; could the arrival routes be changed, what LLA operating times were and noise levels within the surrounding communities.

Public surgeries provide residents who are impacted airport operations to speak with members of the Flight Operations team on an appointment basis.

The Flight Operations team will continue to hold Public Surgeries during 2024. Details of which can be found on our website, which is updated accordingly. (https://www.london-luton.co.uk/corporate/community/noise/noise-surgeries)