Quarterly Monitoring Report
Qtr 4 2020

London
Luton
Airport

INTRODUCTION

The purpose of this report is to advise the community of statistics concerning aircraft operations at London Luton Airport (LLA) during the period Oct to Dec 2020.

KEY MONITORING INDICATORS – 4th QUARTER 2020

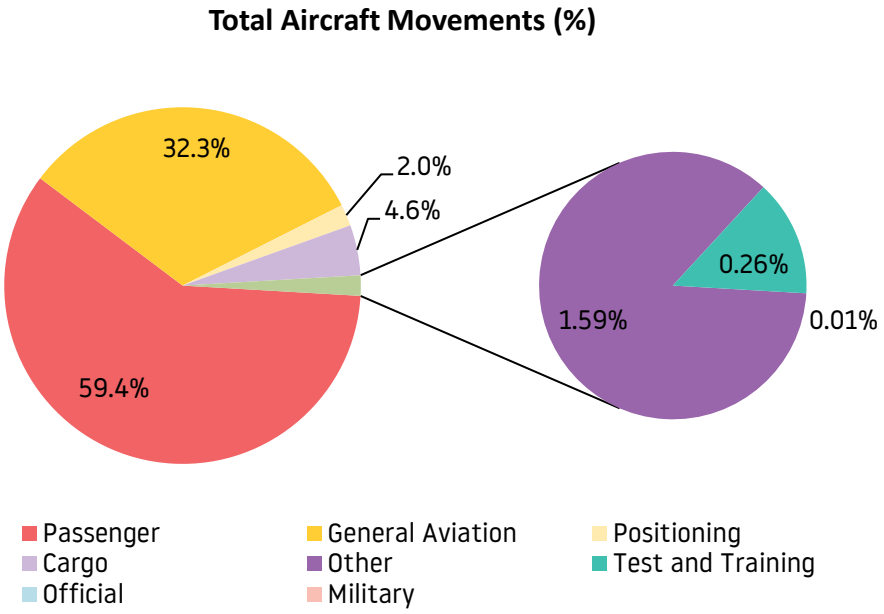
Parameter		4th Quarter 2020	4th Quarter 2019
Total Passenger Number	↓	589,584	4,120,670
Total Aircraft Movements	↓	10,786	33,322
Night Movements (23.00 – 06.59)	↓	1,337	3,657
Early Morning Movements (06.00 – 06.59)	↓	382	1,208
Aircraft Movement and Quota Count limits (per rolling 12-month period)			
Night Quota Movements (*9,650 limit*)	↓	4,250	8,844
Night Quota Count (*3,500 limit)*	↓	1650.00	3159.00
Early Morning Shoulder (*7,000 movements*)	↓	2,525	5,968
24hr CDA (% achievement)	↓	85%	89%
Day CDA (% achievement)	↓	85%	90%
Night CDA (% achievement)	-	85%	85%
Track Violations	↓	3	11
Departure Noise Infringements (Day)	↑	1	0
Departure Noise Infringements (Night)	-	0	0
Noise Monitor Results			
No. Day (Night) > 80 dB(A)	↓	1 (0)	40 (0)
No. Day (Night) > 75 dB(A)	↓	311 (60)	2,056 (233)
No. Day (Night) > 70 dB(A)	↓	2,695 (405)	10,983 (1,299)
Night Noise Contour Area (48 dB $L_{Aeq, 8h}$)	↓	15.8km^2	32.7 km^2
Noise Complaints	↓	739	2,601
Complainants	↓	57	197
Number of New Complainants	↓	12	59
Largest Source of Complaints	-	Deps. West	Deps. West
Origin of Concerns (>5 Complainants)	-	Harpenden St Albans Wheathampstead	Flamstead Harpenden Hitchin St Albans Wheathampstead
Westerly/Easterly Runway Split (%)	-	81/19	73/27

1 AIR TRAFFIC DATA

1.1 Aircraft Movements

There was a total of 10,786 aircraft movements during this quarter (compared with 33,322 for the same period in 2019), decrease of 67.6%.

This resulted in an average 117 movements per 24 hours (compared to 362 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 2020	143	3,642	65	2	0	0	44	1,320	6	**5,222**
Nov 2020	160	980	45	2	0	0	73	916	6	**2,182**
Dec 2020	189	1,780	93	4	0	0	54	1,246	16	**3,382**
QTR Total	**492**	**6,402**	**203**	**8**	**0**	**0**	**171**	**3,482**	**28**	**10,786**

1.2 Passenger Statistics

A total of 589,584 passengers passed through LLA during the period October to December 2020 (compared with 4,120,670 for the same period last year), 588,387 on scheduled flights (99.8%) and 1,197 on charter flights (0.2%). This represents a decrease in passengers of 85.7% and equates to an average 6,408 passengers per 24 hours (compared to 44,790 during the same quarter last year).

	Domestic	EU	Non-EU	Total
Oct 2020	25,617	129,138	142,677	**297,432**
Nov 2020	2,682	31,144	70,742	**104,568**
Dec 2020	9,804	63,817	113,963	**187,584**
QTR Total	**38,103**	**224,099**	**327,382**	**589,584**

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

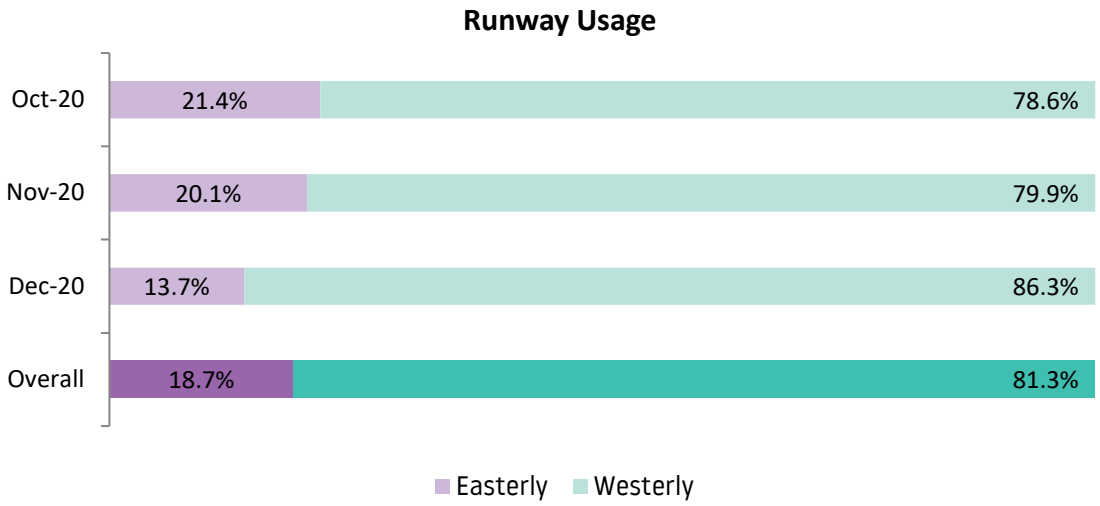
[1] *Other relates to flights coming for maintenance and or departing aircraft that has made an unscheduled return to base*

[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 (compared to 27% / 73% for the same quarter last year). The breakdown of these statistics, on a monthly basis, is as follows:



1.4 Night Flying Restrictions

As from 1st April 2015 London Luton Airport introduced new Night Restrictions as part of the planning conditions.

These restrictions have been put in place to limit and mitigate noise disturbance from aircraft operating at night, to prohibit aircraft of certain types from operating, as well as limiting 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 how noisy they are. 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 which period the number of aircraft movements (take-off or landing) is restricted, as well as an additional limit on number of noise QC points.

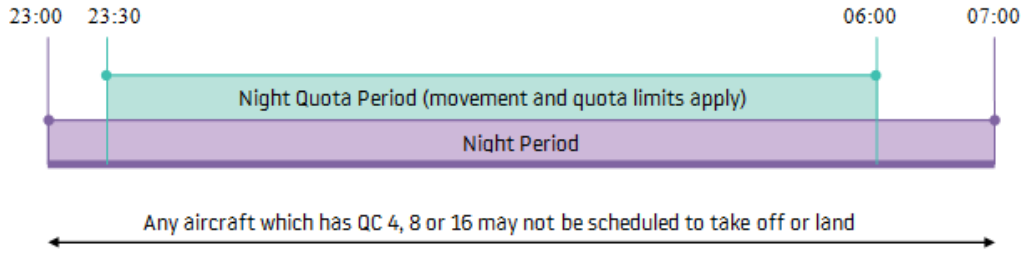
Aircraft are certified by the International Civil Aviation Organisation (ICAO) according to the noise they produce during specific certification tests conducted by the manufacturer. They are classified separately for both take-off and landing. The points are then allocated to different aircraft types according to how noisy they are. 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 Global Express Dassault Falcon 7X/900/2000
Less than 84	QC 0	Airbus A320neo BAe ATP 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 for the Night Quota Period (2330 – 0559) the following limits shall not be exceeded:

(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 for the Early Morning Shoulder Period (0600 – 0659) the total number of movements by aircraft in any 12 month period shall be limited to 7,000.

The table overleaf provides the aircraft movement and quota count for the period Oct to December 2020, and shows total movements and noise quota per 12 month period and compares those against 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 2020	540	187.25	357
February 2020	497	172.75	315
March 2020	377	144.75	224
April 2020	144	98.00	3
May 2020	175	97.75	19
June 2020	238	110.25	30
July 2020	405	152.25	268
August 2020	565	191.50	511
September 2020	494	163.25	416
October 2020	327	126.50	242
November 2020	205	92.25	66
December 2020	283	113.50	74
QTR Total	**815**	**332.25**	**382**
Total for preceding 12 months	*4,250*	*1650.00*	*2,525*

1.5 Day/Night Ratio of Movements - Actual

There were 1,337 night operations during the quarter (compared to 3,657 for the 4th quarter 2019), an average 15 movements per night (compared to 40 last year). Arriving aircraft accounted for 49% of total night movements, relating primarily to the last rotation of Luton based passenger aircraft scheduled to land between 23:00 hours local and midnight. 54% of total night departures took off between 06:00 – 07:00 hours local in the morning. The average ratio of total aircraft operations during the quarter was 88% day / 12% night (in line with 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		
Jan 2020	4,380	4,333	8,713	343	197	42	315	1,040	**9,753**
Feb 2020	4,223	4,255	8,478	322	175	44	271	984	**9,462**
Mar 2020	3,161	3,206	6,367	235	142	28	196	703	**7,070**
Apr 2020	276	306	582	83	61	2	1	151	**733**
May 2020	520	565	1,085	118	57	8	11	197	**1,282**
Jun 2020	760	849	1,609	169	69	11	19	274	**1,883**
July 2020	2,710	2,712	5,422	293	112	6	262	759	**6,181**
Aug 2020	3,928	3,852	7,780	440	125	1	510	1,219	**8,999**
Sept 2020	3,260	3,184	6,444	368	126	7	409	1,000	**7,444**
Oct 2020	2,315	2,253	4,568	229	98	5	237	654	**5,222**
Nov 2020	936	957	1,893	129	76	5	61	289	**2,182**
Dec 2020	1,476	1,512	2,988	185	98	4	70	394	**3,382**
QTR Total	**4,727**	**4,722**	**9,449**	**543**	**272**	**14**	**368**	**1,337**	**10,786**
Total for preceding 12 months	*27,945*	*27,984*	*55,929*	*2,914*	*1,336*	*163*	*2,362*	*7,664*	*63,593*

1.6 Day/Night Ratio of Movements – Forecast

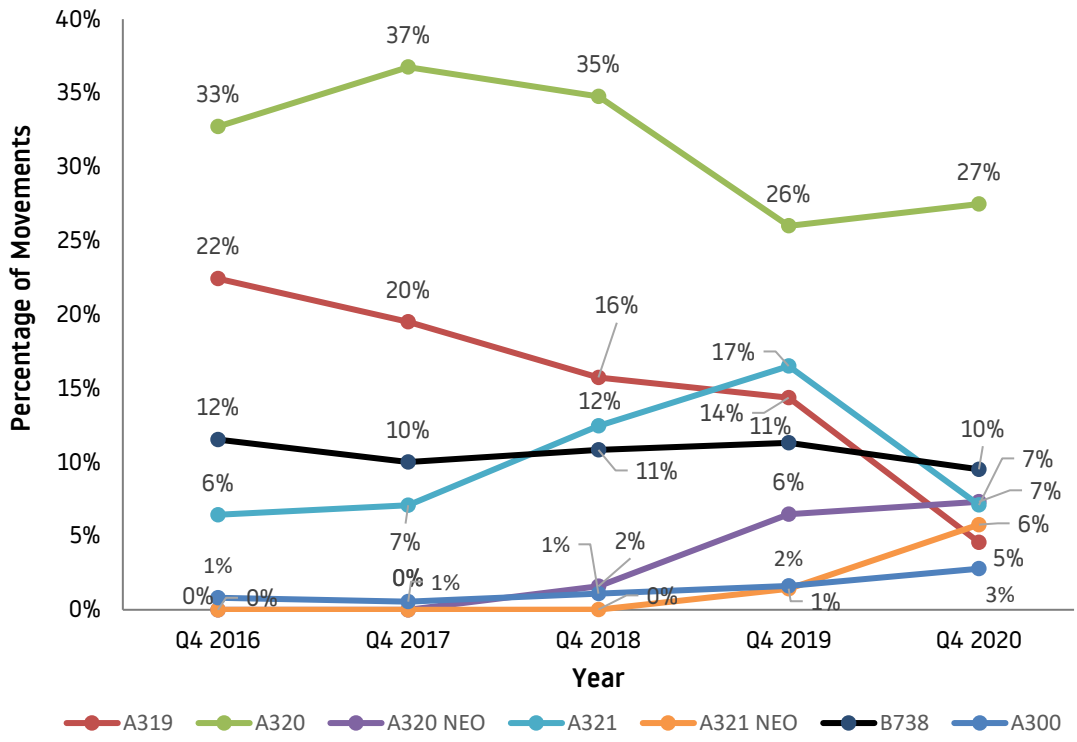
As a result of COVID-19 forecasts are uncertain and forecasts change based on the number of COVID cases in other countries and the UK Foreign and Commonwealth Office's advice.

	2020 / 2021 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 2021	8,632	486	412	1,039	9,671
February 2021	8,154	466	374	981	9,135
March 2021	9,871	458	324	920	10,791
April 2021	10,958	772	550	1,497	12,455
May 2021	11,859	889	614	1,731	13,590
June 2021	11,424	894	589	1,732	13,156
July 2021	11,307	1,074	637	1,967	13,274
August 2021	10,786	1,069	604	1,925	12,711
September 2021	10,978	867	538	1,663	12,641
October 2021	11,095	873	512	1,605	12,700
November 2021	8,748	430	268	816	9,564
December 2021	10,199	569	335	1,071	11,270
*Total for following 12 months**	*124,011*	*8,847*	*5,757*	*16,947*	*140,958*

**Rounded number*

1.7 Aircraft Movements by Type

The graph below shows the percentage of aircraft movements for our main aircraft types. The data goes back 5 years for data comparison purposes.



2 DEPARTING AIRCRAFT

2.1 Departure Route Analysis

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

		Departures										Total
		MATCH/ DETLING			*COMPTON*		*OLNEY*		*Other**		*Helicopter*	
		07	25 Conv	25 RNAV	07	25	07	25	07	25	HELI	
Oct 2020	Daytime	276	20	963	117	479	48	162	2	27	8	**2,102**
	Night-time	69	4	194	46	127	14	49	1	0	0	**504**
Nov 2020	Daytime	129	26	449	50	193	14	68	7	20	1	**957**
	Night-time	14	8	71	8	20	5	18	0	0	0	**144**
Dec 2020	Daytime	133	20	750	52	360	25	136	4	26	6	**1,512**
	Night-time	19	2	94	3	38	5	20	1	1	0	**183**
QTR	**Total**	**640**	**80**	**2,521**	**276**	**1,217**	**111**	**453**	**15**	**74**	**15**	**5,402**
	Daily Average	*7*	*<1*	*27*	*3*	*13*	*1*	*5*	*<1*	*<1*	*<1*	*59*

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). The obligations of NPRs for conventional SIDs cease when a height of 3,000ft AMSL (between 07:00hrs to 23:00hrs local time) and 4,000ft AMSL (during night time, 23:00hrs to 06:59hrs 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. An NPR is a corridor 3 kilometres wide (2km for the RNAV route), within which aircraft are deemed to be flying on track. Once aircraft have 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.

In April 2015 London Luton Airport implemented a Track Violation Penalty Scheme in connection with the planning conditions. Using the current Aircraft Noise and Track Monitoring System the Airport's specialist Flight Operations Department evaluates the radar tracks and investigates with required input from ATC and airlines. Where 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. If there is valid justification that could explain the deviation from the track, then the operator causing it 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 3-month period. The on-track performance for the quarter was 97.7%. This calculation includes deviations for weather, traffic avoidance and those classed as violations. The breakdown of the violations is shown in the table below.

	Number of Violations	Total Penalties Collected
Oct 2020	2	£2,000
Nov 2020	0	£0
Dec 2020	1	£2,000
QTR	**3**	**£4,000**

	Airline or Aircraft Operator	Aircraft Type/Occurrence
Oct 2020	Privately owned aircraft	C56X/1, GLF4/1
Nov 2020	-	-
Dec 2020	Privately owned aircraft	CRJ2/1

3 ARRIVING AIRCRAFT

3.1 Arrivals Route Analysis

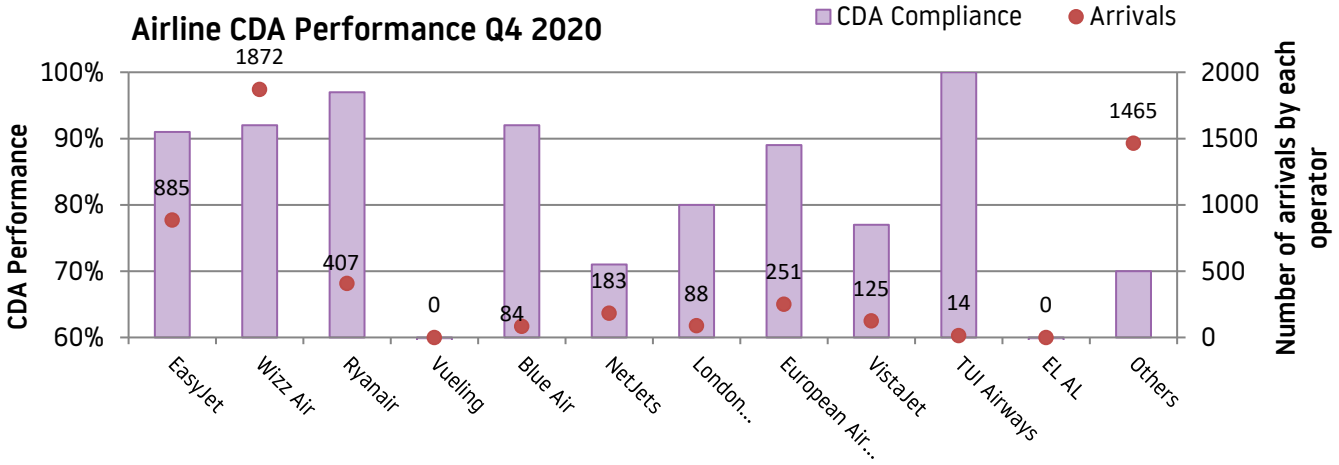
The following table reports the total number of arrivals differentiating between easterly (07), westerly (25) operations and helicopters between 23:00 hrs and 06:59 hrs.

		Arrivals			Total
		07	25	Heli	
Oct 2020	Daytime	431	1,722	6	**2,159**
	Night-time	114	339	0	**453**
Nov 2020	Daytime	185	749	2	**936**
	Night-time	25	120	0	**145**
Dec 2020	Daytime	176	1,299	5	**1,480**
	Night-time	45	166	0	**211**
QTR	**Total**	**976**	**4,395**	**13**	**5,384**
	Daily Average	*11*	*48*	*<1*	*59*

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 5000ft.

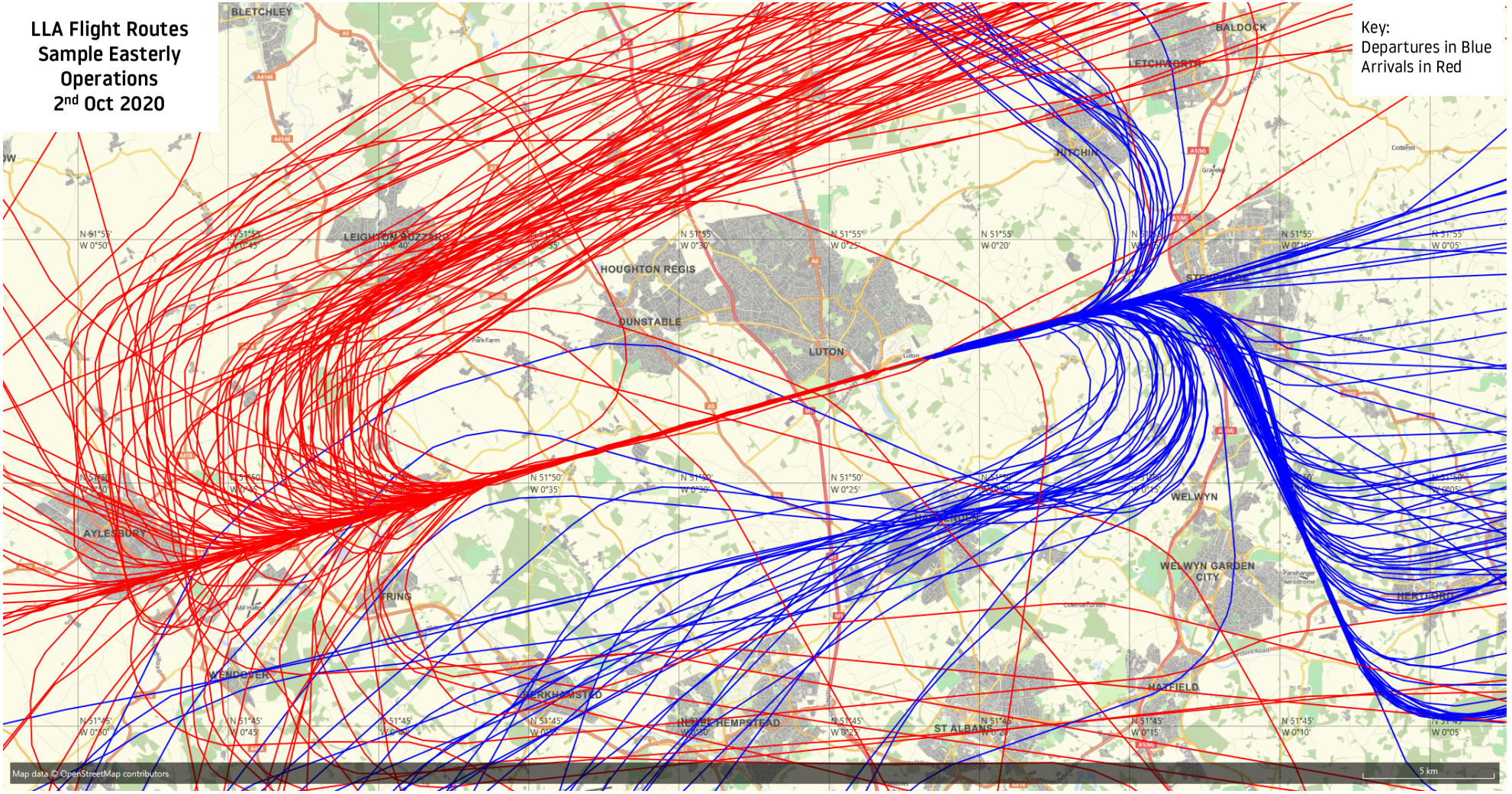
	All Arrivals			07 Easterly Arrivals			25 Westerly Arrivals		
	% CDA			*% CDA*			*% CDA*		
	Total	*Day*	*Night*	*Total*	*Day*	*Night*	*Total*	*Day*	*Night*
Oct 2020	**88%**	88%	86%	**90%**	91%	81%	**87%**	87%	87%
Nov 2020	**81%**	81%	84%	**74%**	74%	71%	**83%**	82%	87%
Dec 2020	**82%**	82%	84%	**84%**	85%	79%	**82%**	81%	85%
QTR Total	**85%**	85%	85%	**85%**	86%	78%	**85%**	84%	87%

The overall CDA achievement was 85% with several major LLA operators achieving high performance.

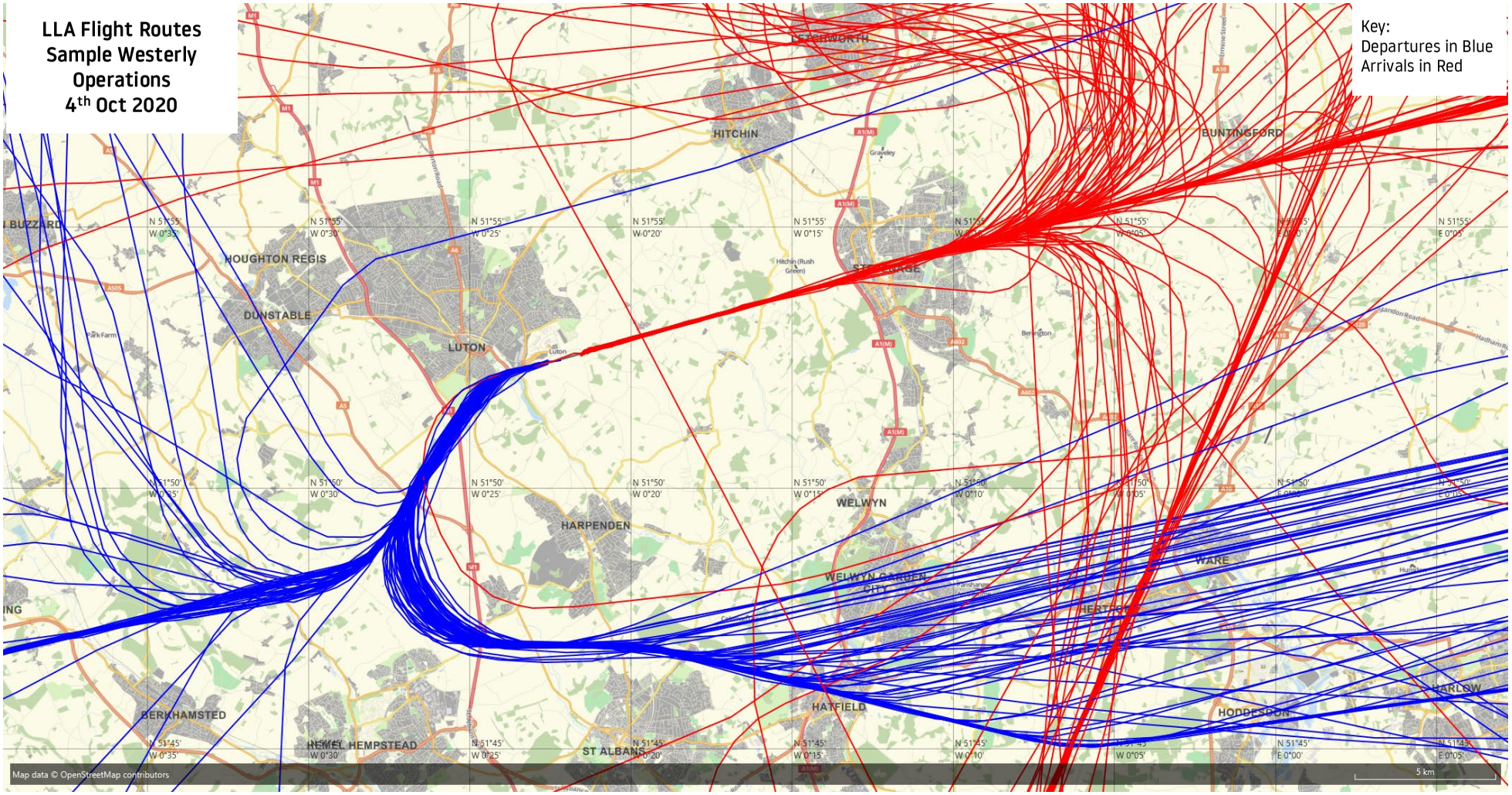


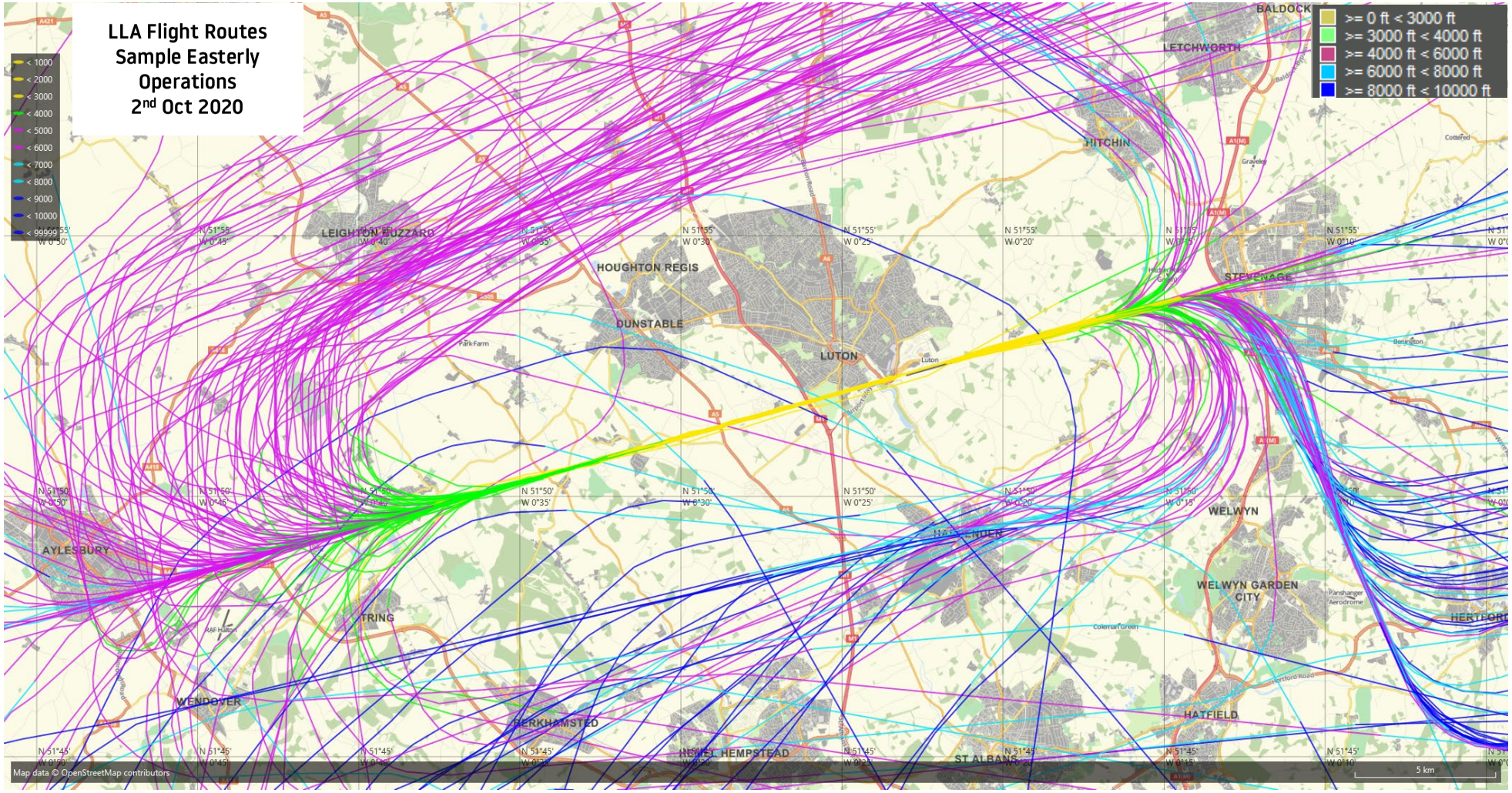
The maps overleaf, produced from the Topsonic Aircraft Noise & Track Monitoring System, identify samples of actual flown aircraft tracks operating from LLA (arrivals and departures during both easterly and westerly operations) for a typical 24-hour period within the fourth quarter of 2020.

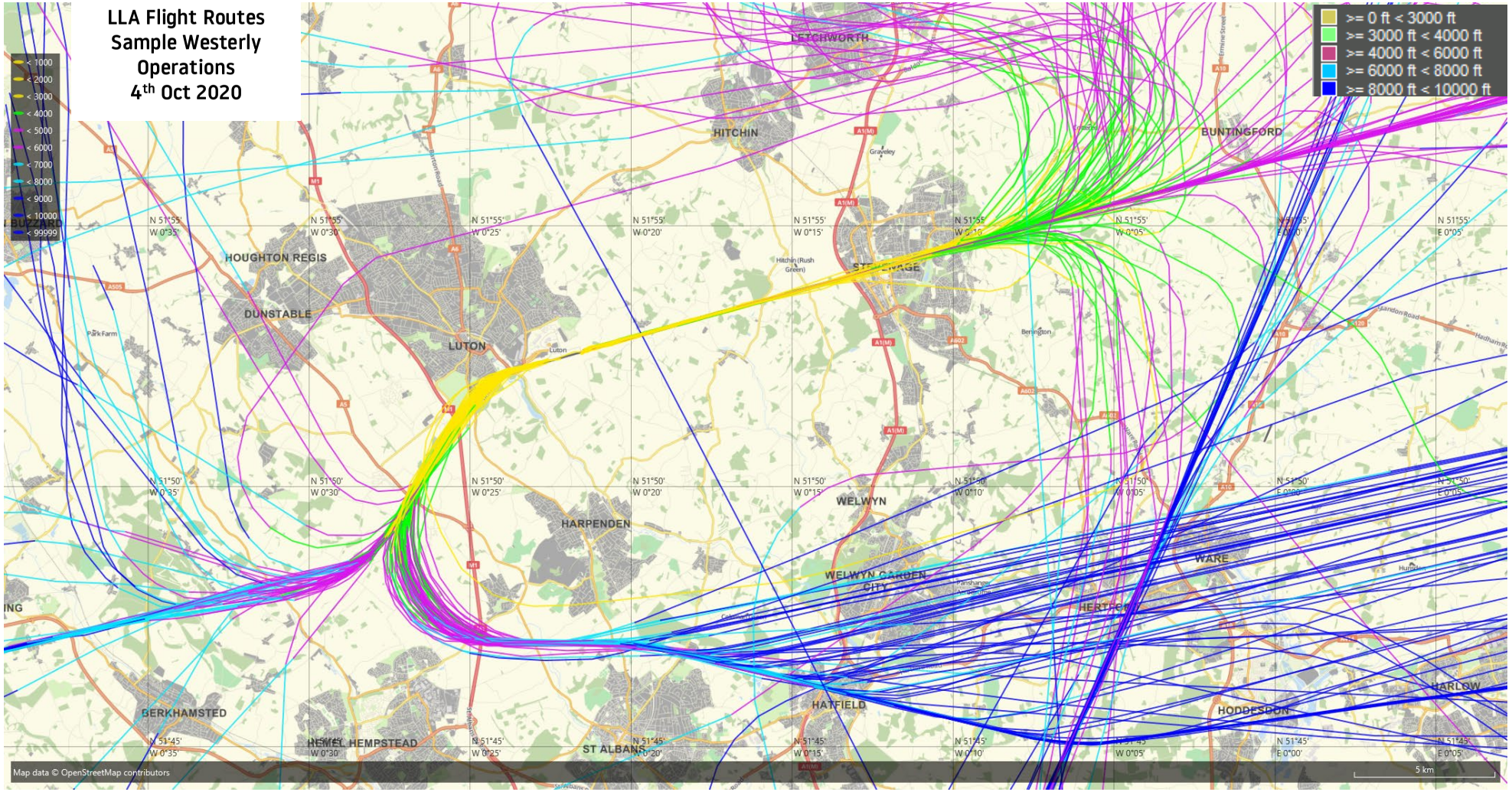
LLA Flight Routes
Sample Easterly
Operations
2nd Oct 2020



LLA Flight Routes Sample Westerly Operations 4th Oct 2020




LLA Flight Routes
Sample Easterly
Operations
2nd Oct 2020
>= 0 ft < 3000 ft
>= 3000 ft < 4000 ft
>= 4000 ft < 6000 ft
>= 6000 ft < 8000 ft
>= 8000 ft < 10000 ft
< 1000
< 2000
< 3000
< 4000
< 5000
< 6000
< 7000
< 8000
< 9000
< 10000
< 99999
BALDOCK
LETCHWORTH
HITCHIN
LEIGHTON BUZZARD
HOUGHTON REGIS
DUNSTABLE
LUTON
STEVENAGE
WELWYN
WELWYN GARDEN CITY
HATFIELD
AYLESBURY
TRING
WENDOVER
BERKHAMSTED
HEMEL HEMPSTEAD
ST ALBANS
Map data © OpenStreetMap contributors
5 km


LLA Flight Routes
Sample Westerly
Operations
4th Oct 2020
>= 0 ft < 3000 ft
>= 3000 ft < 4000 ft
>= 4000 ft < 6000 ft
>= 6000 ft < 8000 ft
>= 8000 ft < 10000 ft
< 1000
< 2000
< 3000
< 4000
< 5000
< 6000
< 7000
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< 10000
< 99999
LETCHWORTH
HITCHIN
BUNTINGFORD
HOUGHTON REGIS
DUNSTABLE
LUTON
WELWYN
HARPENDEN
WELWYN GARDEN CITY
WARE
HERTFORD
HATFIELD
HODDESDON
HARLOW
BERKHAMSTED
HEMEL HEMPSTEAD
ST ALBANS
Map data © OpenStreetMap contributors
5 km

4 AIRCRAFT NOISE

During the 4th Quarter of 2020, the maximum noise levels less than 79 dB(A) was recorded by 99.9% of correlated departing aircraft.

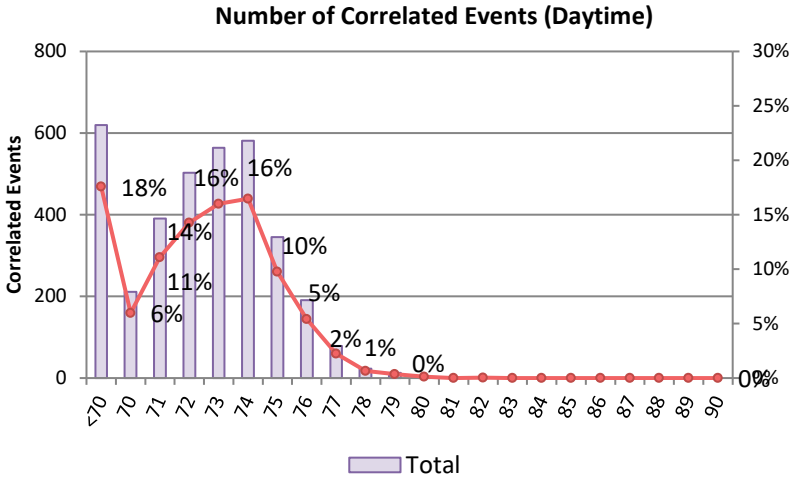
The maximum noise level less than 76 dB(A) was recorded by 96.3% of correlated departing aircraft.

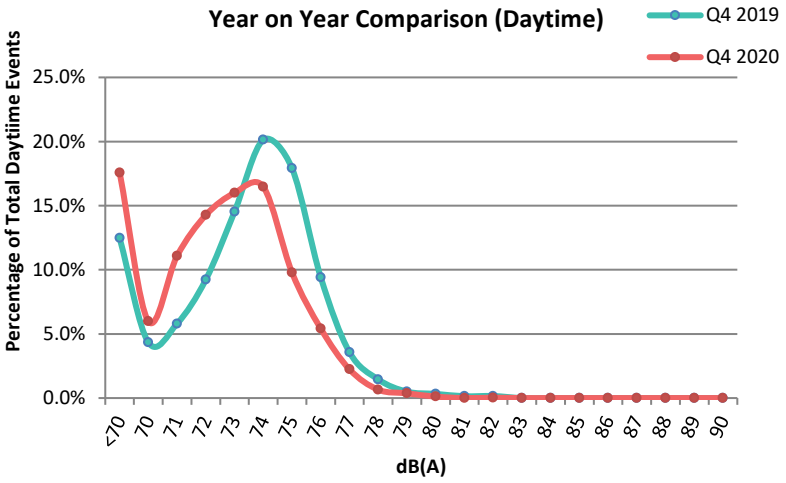
There was one daytime noise violation in this quarter, compared to no noise violations during the same quarter last year.

4.1 Daytime Noise Levels – October to December 2020

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 hrs and 22:59 hrs, is fined accordingly*)

	db (A)	Oct	Nov	Dec	QTR
Number of Correlated Events (Daytime)	<70	409	164	47	620
	70	125	40	46	**211**
	71	226	64	101	**391**
	72	277	78	148	**503**
	73	304	113	147	**564**
	74	306	118	157	**581**
	75	159	82	104	**345**
	76	97	44	50	**191**
	77	40	18	21	**79**
	78	11	3	9	**23**
	79	5	4	4	**13**
	80	1	1	2	**4**
	81	0	0	0	0
	82	0	0	1	1
	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		**1960**	**729**	**837**	**3526**

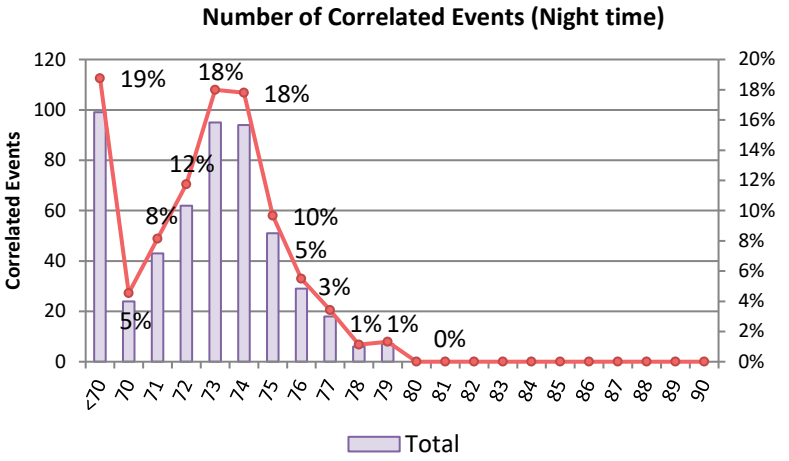


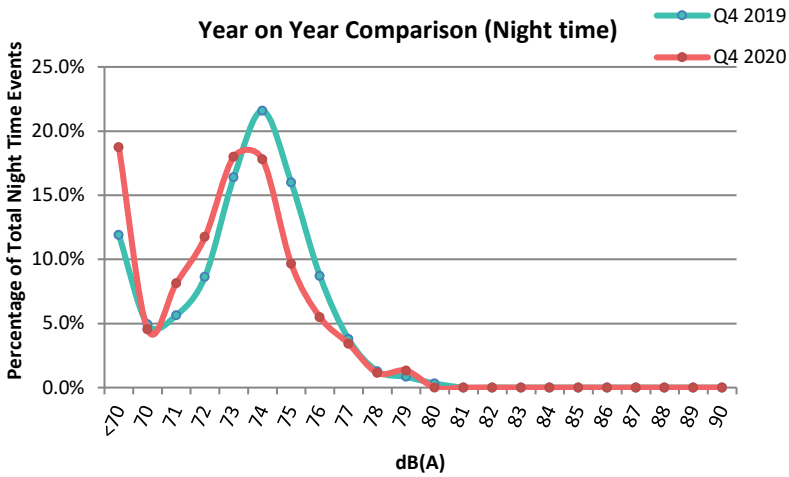


4.2 Night Noise Levels – October to December 2020

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 hrs, is fined accordingly)*

	db (A)	Oct	Nov	Dec	QTR
Number of Correlated Events (Night time)	<70	53	41	5	**99**
	70	12	8	4	**24**
	71	24	11	8	**43**
	72	43	11	8	**62**
	73	66	9	20	**95**
	74	56	14	26	**96**
	75	36	10	5	**51**
	76	17	6	6	**29**
	77	7	2	9	**18**
	78	4	0	2	**6**
	79	3	2	2	**7**
	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		**321**	**114**	**95**	**530**





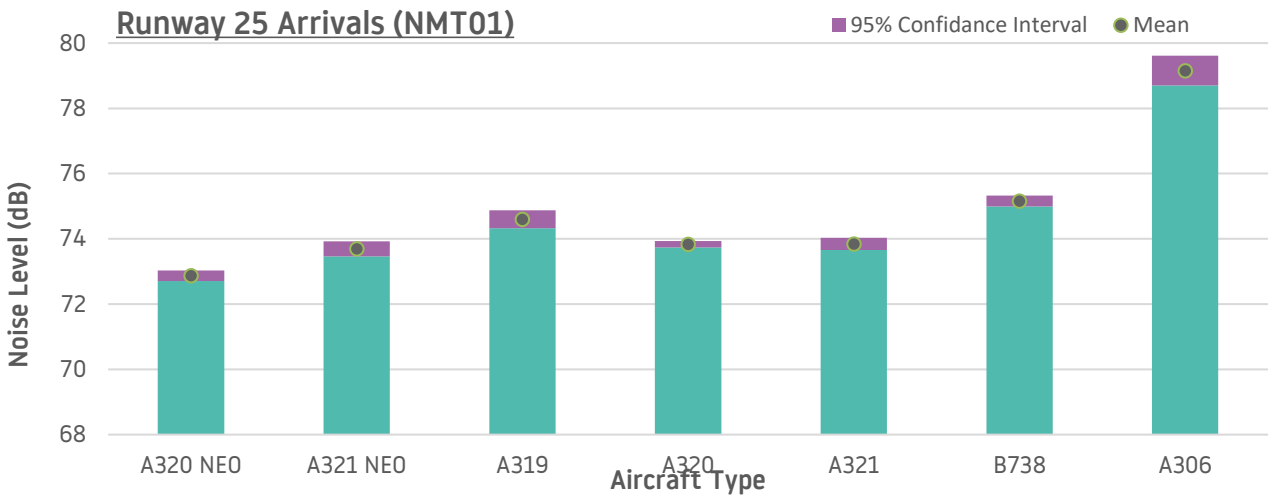
N.B It should be noted that the detection thresholds for the noise monitoring terminals are set at the lowest level to record the maximum number of aircraft noise events. However, a number of smaller aircraft types, such as business jets and propeller aircraft, get very close to but do not reach the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

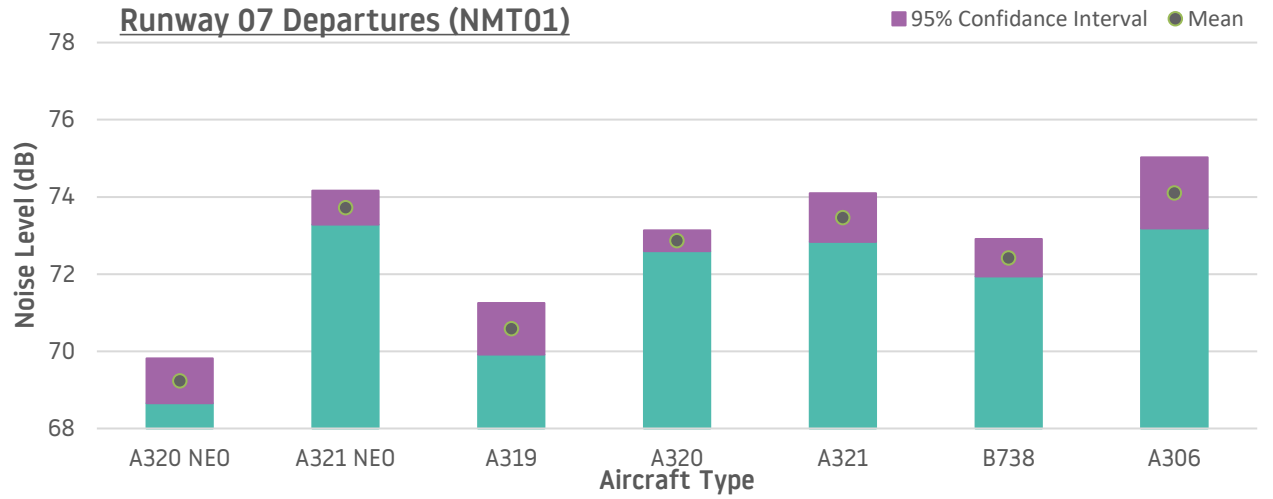
Weather conditions can also effect the number of noise monitoring events recorded in the table; for example, if winds are greater than 10m/s, results from noise monitors will be invalid and therefore will not been taken into account.

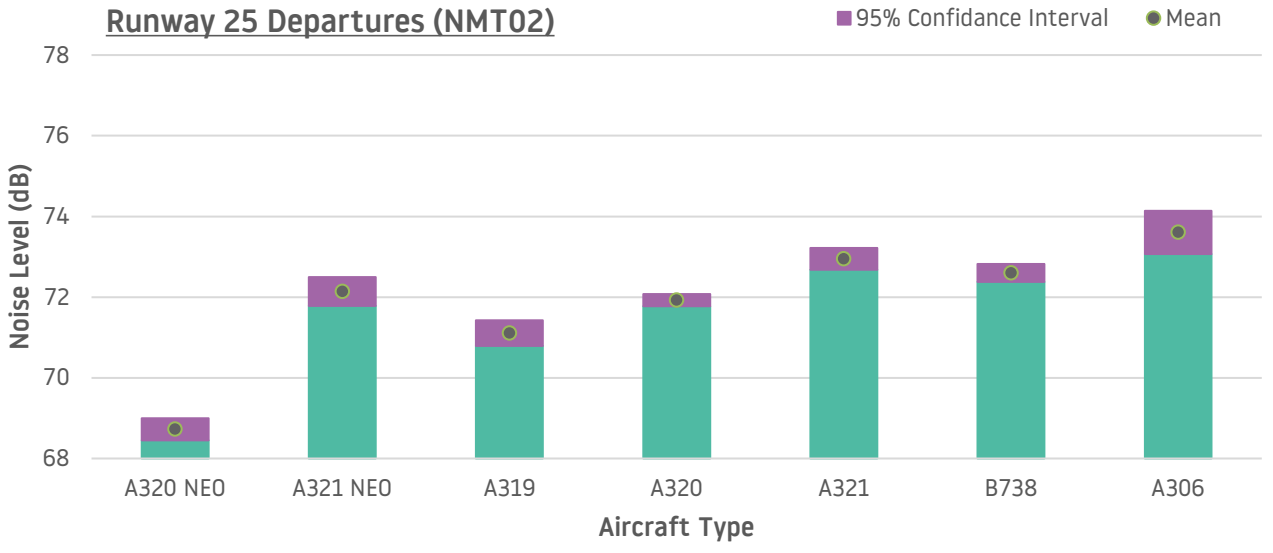
4.3 Average Noise Monitor results by Aircraft Type (Oct to Dec 2020)

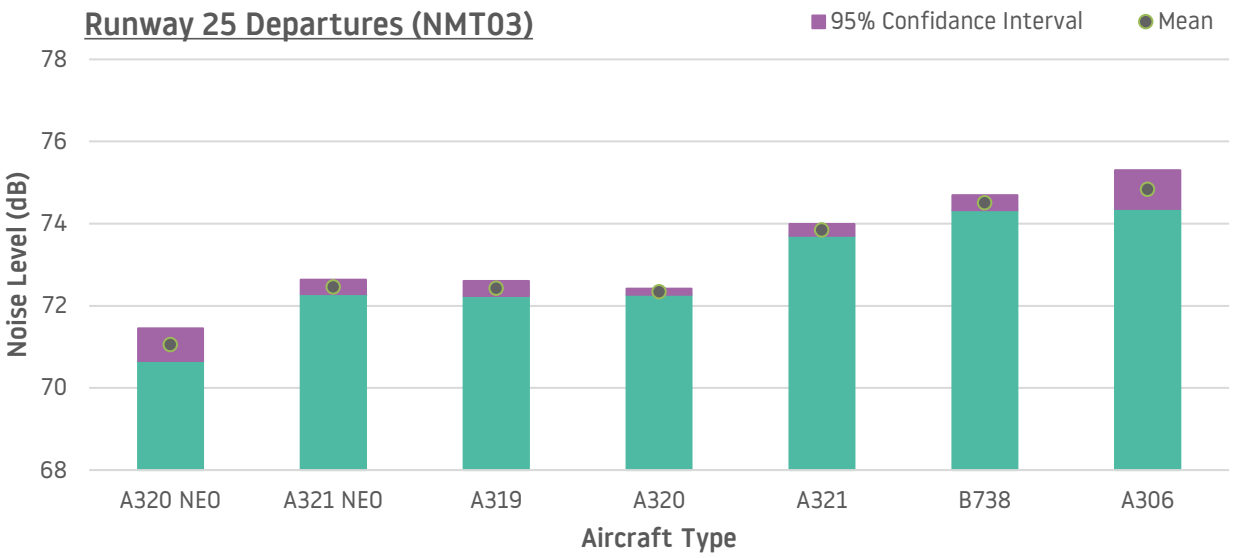
The following graphs show the average noise and 95% confidence level for the three fixed noise monitors for the period October – December 2020. These are also split by the main aircraft types operating at LLA.

It should be noted, that due to the low number of movements during the quarter, only aircraft types meeting a threshold of at least 100 valid events recorded at the noise monitor have been included on the graphs (A306 and A320 NEO are included for comparison).









The table below shows the sample sizes used for the graphs in this section. Ideally an aircraft type should have over 1,000 results to be compared. These sample sizes are low compared to other quarters. The results in these graphs should be analysed with caution due to the small sample sizes.

	A320 NEO	A321 NEO	A319	A320	A321	B738	A306
NMT01 (Arr)	321	256	187	1,180	310	389	119
NMT01 (Dep)	72	56	49	301	70	111	23
NMT02 (Dep)	201	127	133	822	174	304	79
NMT03 (Dep)	31	189	158	901	259	341	111

4.4 Noise Violations during Quarter (October to December 2020)

There was one daytime noise violation during the period.

	Date/Time (Local)	Aircraft Type	Noise Level
Daytime	10/12/2020 20:04 hrs	FA8X (Executive Jet)	82 dB(A)
Total Penalties Collected			**£1,000**

4.5 Noise Insulation Scheme Update

In Quarter 4, the noise insulation scheme was paused due to COVID-19 and government restrictions. Therefore no properties were contacted or insulated during these months.

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 can be provided. Rooms eligible for insulation include living rooms, dining rooms, kitchen-diners and bedrooms.

5 NOISE CONTOURS

5.1 Night Noise Contours – October to December 2020

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 for the 2020 Q3 contours, with terrain data allowed for and the contours produced using the INM software (Version 7.0d) with user-defined profiles for the most common aircraft. The validation is based on measured results in 2019 at the fixed noise monitors.

5.1.2 Noise Contour Results

The resulting noise contours are shown on page 22 at values from 48 to 72 dB LAeq,8h. The area of each noise contour is given in Table 1 below and compared with the values for the previous quarter (July - September 2020), and the equivalent quarter during the previous year (October – December 2020).

Contour Value (dB $L_{Aeq,8h}$)	**Contour Area (km^2)**		
	Oct - Dec 2019	**Jul – Sept 2020**	**Oct – Dec 2020**
48	32.7	31.6	15.8
51	18.7	18.1	9.0
54	10.5	10.1	5.2
57	6.1	6.0	2.6
60	3.1	3.1	1.5
63	1.7	1.7	0.9
66	1.0	1.0	0.6
69	0.7	0.6	0.4
72	0.4	0.4	0.2
W/E Split (%)	76/24	77/23	80/20

Table 1: Area of Night Noise Contours

** The 69 and 72 dB $L_{Aeq,8h}$ contours are not shown on the Figure on page 21 as they are too small to individually distinguish, and both contours are fully contained within the boundaries of the airport site.*

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 2019	Jul – Sept 2020	Oct - Dec 2020
1900D	18	25	12
737300	n/a	10	n/a
737400	38	95	38
737800	396	357	130
757RR	225	136	209
A300-622R	166	131	154
A319-131	339	110	35
A320-211 (ceo)	912	861	222
A320-211 (neo)	262	431	86
A321-232 (ceo)	698	628	156
BEC58P	20	n/a	n/a
CL600	32	n/a	11
CL601	55	20	27
CNA525C	12	n/a	n/a
CNA560U	11	n/a	n/a
CNA560XL	30	25	20
CNA750	n/a	n/a	10
EMB145	30	13	20
F10062	61	10	15
GIV	28	n/a	n/a
GV	238	68	116
LEAR35	15	n/a	11
Other	64	55	65
Total	**3,650**	**2,975**	**1,337**

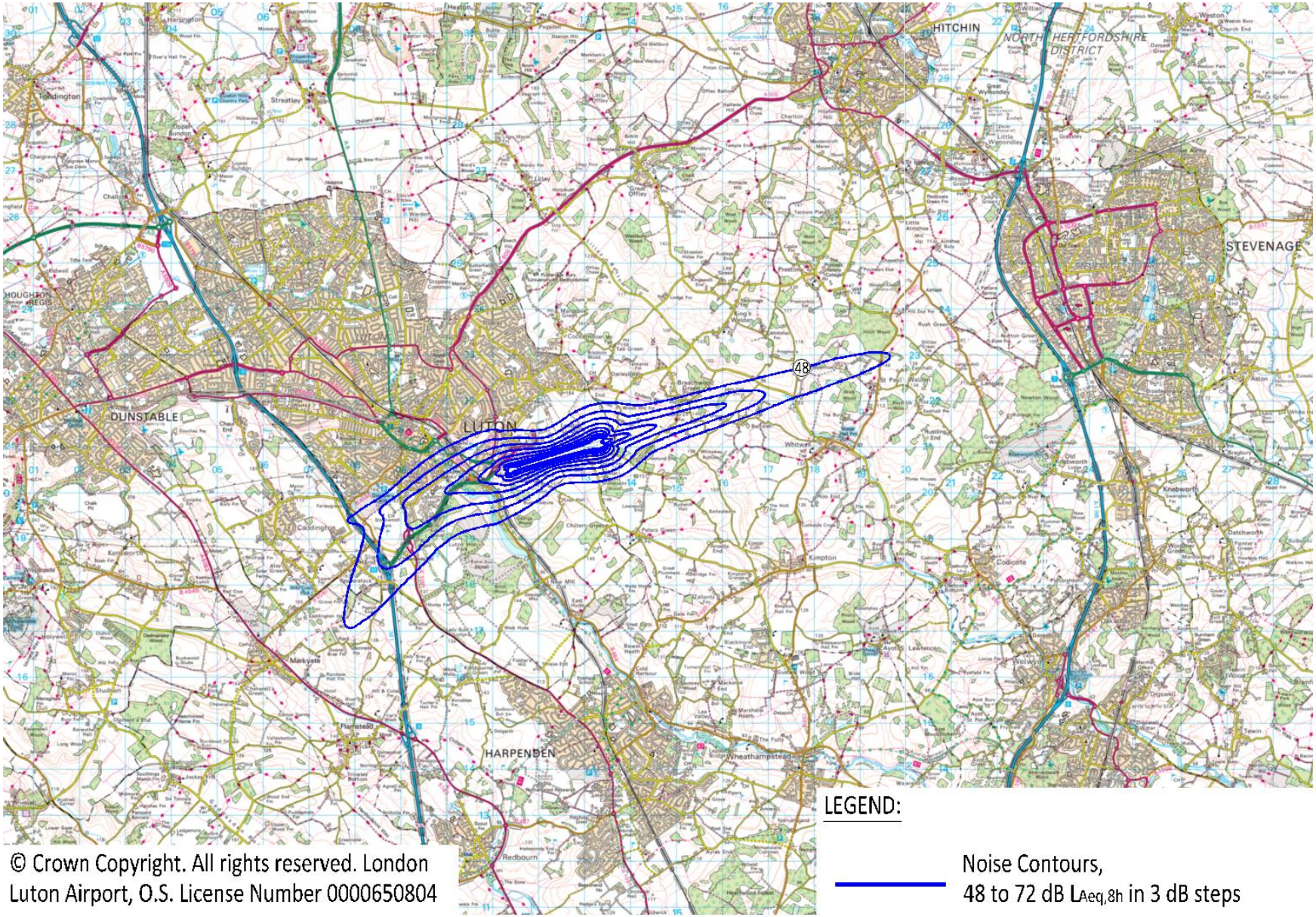
Table 2: Night-time Aircraft Movement Numbers by Aircraft Type

5.1.4 Noise Contour Comparison

Due to the COVID-19 pandemic, there has been a 63% decrease in the total number of movements compared with the same quarter in 2019.

The area of the 48 dB(A) noise contour has decreased by 52% compared to the same quarter last year, as a result of the decrease in movements.

The number of movements, and therefore the contour areas, has decreased compared to the previous quarter (July - September 2020).



LEGEND:

Noise Contours,
48 to 72 dB $L_{Aeq,8h}$ in 3 dB steps

6 COMPLAINTS

6.1 Total Complaints relating to LLA aircraft operations

	4th QTR 2020	4th QTR 2019
Total No. of Complaints relating to LLA aircraft operations	739	2,601
No. of Complainants	57	197
No. of General Complaints	40	210
No. of Specific Complaints	699	2,391
Average No. of Complaints per Complainant	12.9	13.2
No. of Aircraft Movements per Complaint	14.6	12.8

In line with the decrease in aircraft movements, a total of 739 complaints relating to LLA aircraft operations (on average 8 complaints per 24 hours) were received by the Flight Operations Department during the last quarter. This is compared to the 2,601 complaints which were received for the same period last year. It should be noted that in the fourth quarter of 2020, 86% of complaints were received from 10 individuals.

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

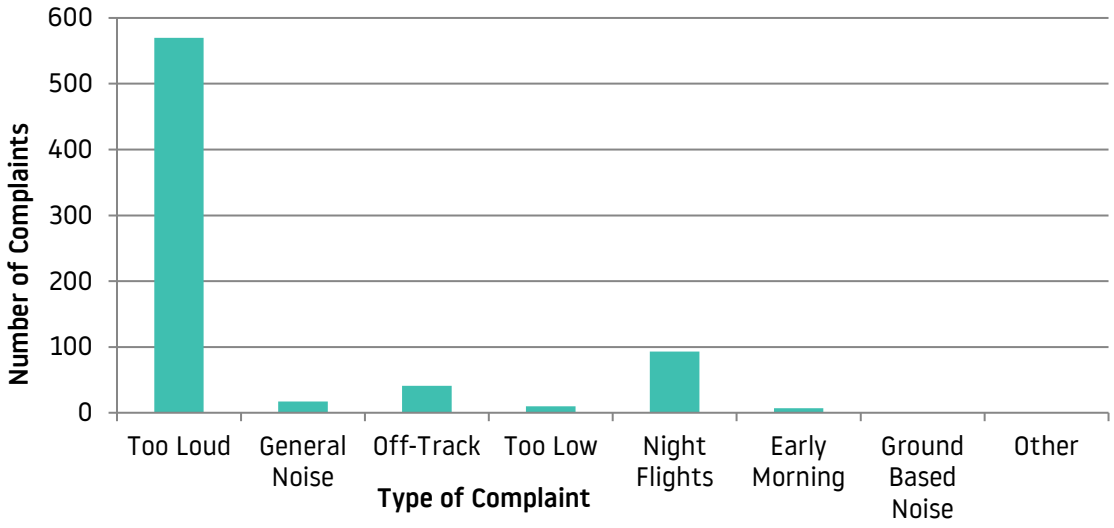
Oct 2020 333 complaints (316 Specific Complaints, 17 General Complaints)
Nov 2020 30 complaints (23 Specific Complaints, 7 General Complaints)
Dec 2020 376 complaints (360 Specific Complaints, 16 General Complaints)

A further 138 complaints not attributable to LLA traffic were received throughout the quarter, compared to 107 complaints for the period Oct to Dec last year.

Out of 57 total complainants, there were 31 that contacted the airport only once meaning that 26 complainants generated 708 complaints.

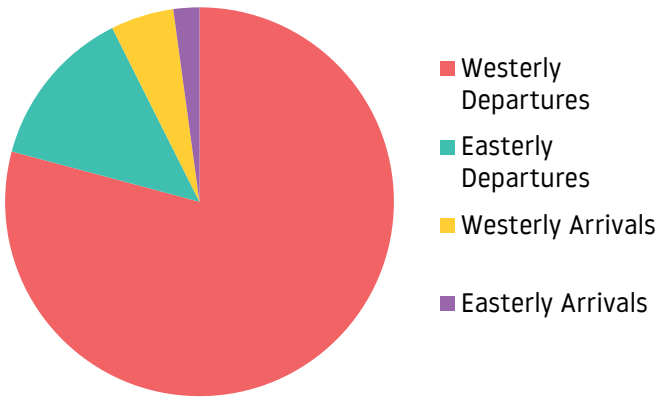
6.2 Type of Complaint

The types of complaint received by the Flight Operations Department from October to December 2020 are listed below.



6.3 Nature of Disturbance

The chart represents the areas of concern reported from specific complaints with regard to aircraft activity during the period Oct to Dec 2020.



Within the 513 specific aircraft complaints concerning westerly departures, 497 complaints involved aircraft on the Match/Detling heading, 10 related to aircraft following Compton flight route, 3 related to aircraft using the Olney route and 3 complaints were recorded about aircraft following an off-airways routing.

With regard to the 87 complaints attributed to easterly departures, 79 related to aircraft following the Compton flight route and 6 aircraft on the Match route. There were 2 specific complaints relating to the easterly Olney departure route.

In total the Flight Operations Department received 48 specific complaints regarding arrivals. 34 of these complaints were about westerly arrivals and a further 14 concerning easterly arrivals.

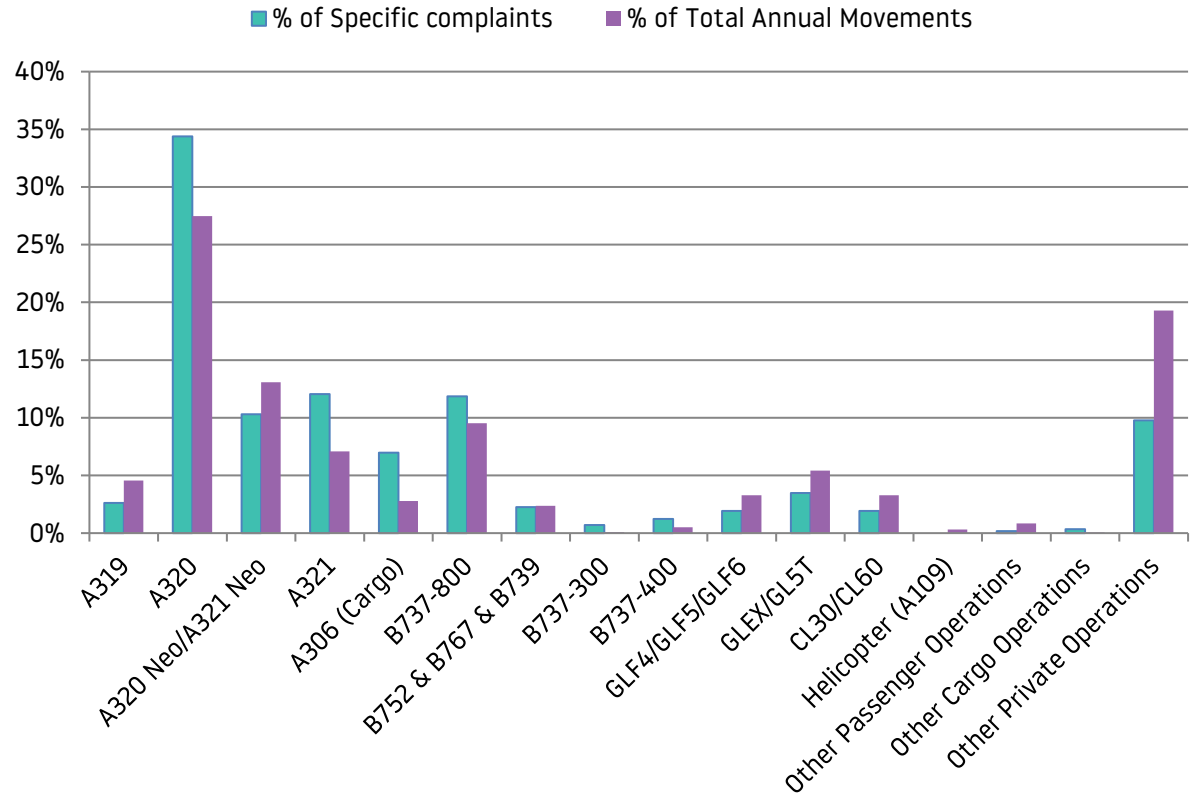
21 Complainants reported noise disturbance at night (compared to **39 Complainants** for the same Quarter last year)

Departing aircraft accounted for 92% of the 78 specific night complaints and 8% involved arrivals. Cargo flights, involving A306 and B752 aircraft were reported in 41% of night complaints, whilst passenger aircraft accounted for 50% of night complaints. Furthermore, 9% of night complaints correlated to executive aircraft.

93 (13%) Complaints concerning night noise disturbance from LLA operations

6.4 Complaints by aircraft type

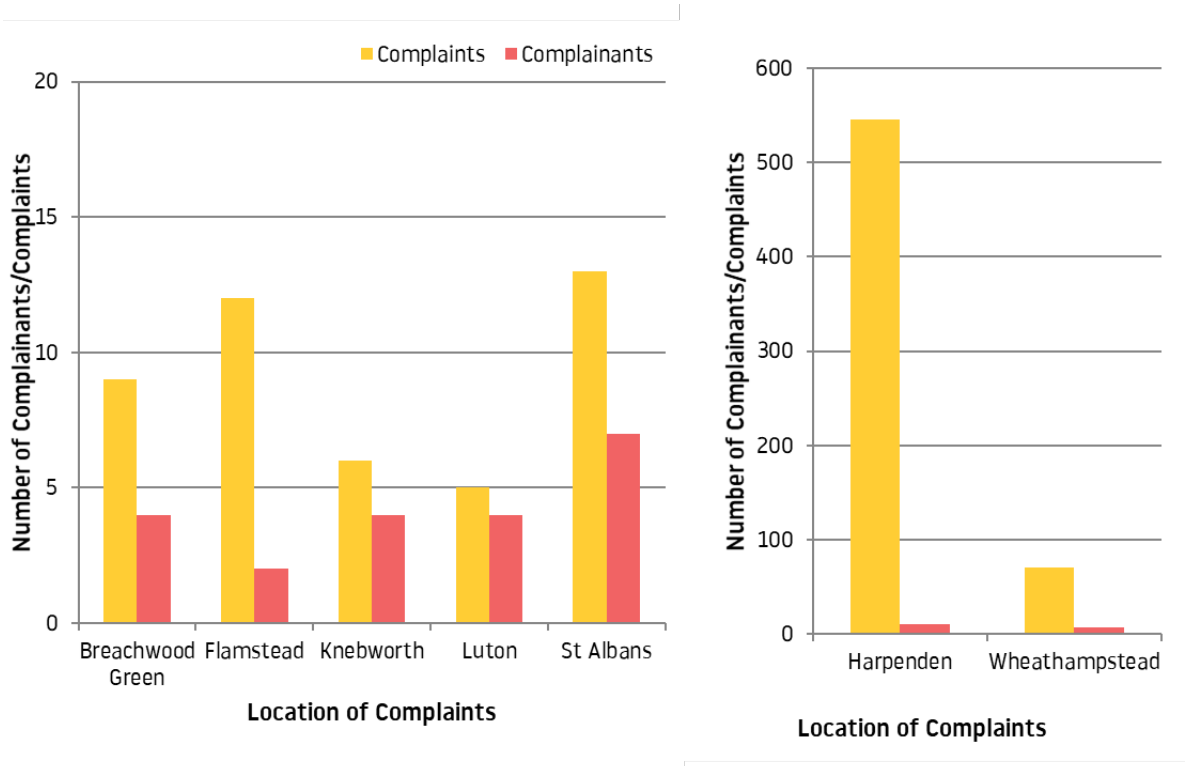
The diagram below shows aircraft types generating specific complaints.



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 Oct to Dec 2020.

The communities with one complainant include Ayot St Lawrence, Berkhamsted, Blackmore End, Caddington, Campton, Chesham, Dunton, Essex, Hatfield, Hemel Hempstead, Hitchin, Kensworth, Little Gaddesden, Markyate, Pepperstock, Preston, Redbourn and Stevenage.



6.6 Complaints Analysis

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

- The number of movements significantly decreased due to the impact of COVID-19, and the number of complaints reduced in line with this.
- The fewest complaints were received during November, which is in line with the decrease in movements in line with a government lockdown due to COVID-19.
- Similar to previous quarters, a few people are making many complaints, in Q4 86% of complaints were generated by 10 individuals.
- The wind direction was predominantly westerly (81%) and therefore 79% of complaints were made from residents effected by westerly routes.

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
Phone	2.4%
Email	76.8%
Travis	20.8%

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

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 80% of concerns within 8 days and 100% 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	48.4%
1	29.5%
2	1.9%
3	13.4%
4	2.0%
5	0.9%
6	1.2%
7	0.9%
8	0.5%
9	0.5%
10	0.4%
11	0.0%
12	0.0%
13	0.0%
14	0.0%
15	0.0%
16	0.0%
16+	0.1%

7 COMMUNITY RELATIONS

7.1 Community Visits to Airport

Invitations are often extended to local residents and LLACC members 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, there were no community visits due to COVID-19.

7.2 Airport Visits to the Community

In light of COVID-19 and the need to continue social distancing measures, the Flight Operations team took the decision to cancel all public surgeries in 2020 and rearrange these for 2021. Details will be published on our website when available. (https://www.london-luton.co.uk/corporate/community/noise/noise-surgeries)