Quarterly Monitoring Report
Quarter 4 2021

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 October 2021 to December 2021.

KEY MONITORING INDICATORS – 4th QUARTER 2021

Parameter		4th Quarter 2021	4th Quarter 2020
Total Passenger Number	↑	1,884,692	589,584
Total Aircraft Movements	↑	23,844	10,786
Night Movements (23.00 – 06.59)	↑	2,740	1,337
Early Morning Movements (06.00 – 06.59)	↑	695	382
Aircraft Movement and Quota Count limits (per rolling 12-month period)			
Night Quota Movements (*9,650 limit*)	↓	3,479	4,250
Night Quota Count (*3,500 limit)*	↓	1,276.50	1,650.00
Early Morning Shoulder (*7,000 movements*)	↓	2,423	2,525
24hr CDA (% achievement)	↑	89%	85%
Day CDA (% achievement)	↑	89%	85%
Night CDA (% achievement)	↑	87%	85%
Track Violations	↑	9	3
Departure Noise Infringements (Day)	↑	3	1
Departure Noise Infringements (Night)	-	0	0
Noise Monitor Results*			
No. Day (Night) > 80 dB(A)	↑	3 (0)	1 (0)
No. Day (Night) > 75 dB(A)	↑	684 (100)	311 (60)
No. Day (Night) > 70 dB(A)	↑	6,151 (880)	2,695 (405)
Night Noise Contour Area (48 dB $L_{Aeq, 8h}$)	↑	27.0 km^2	15.8 km^2
Noise Complaints	↑	1.108	739
Complainants	-	57	57
Number of New Complainants	-	12	12
Largest Source of Complaints	-	Deps. West	Deps. West
Origin of Concerns (>5 Complainants)	-	St Albans Flamstead Harpenden	Harpenden St Albans Wheathampstead
Westerly/Easterly Runway Split (%)	-	83/17	81/19

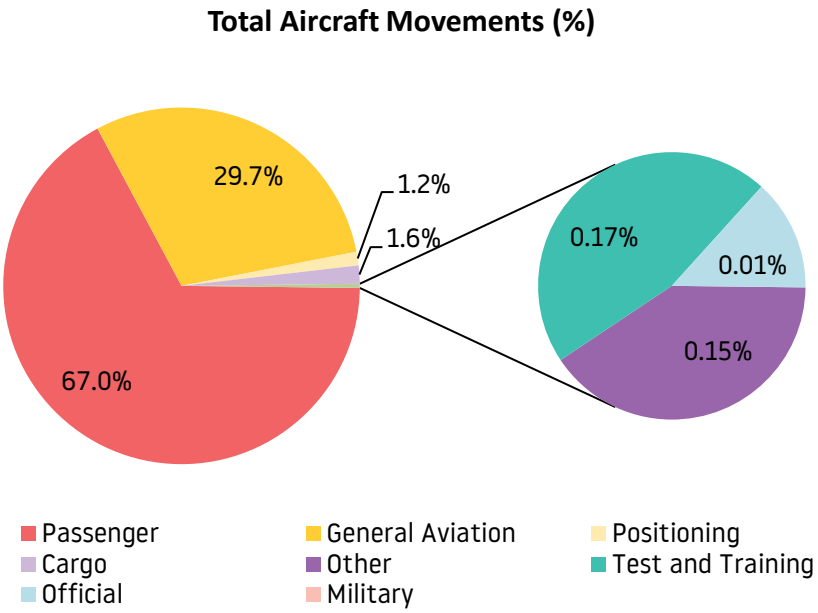
**It should be noted that due to the maintenance at NMT03, data was not collected for 11 days in Quarter 4 2021.*

1 AIR TRAFFIC DATA

1.1 Aircraft Movements

There was a total of 23,844 aircraft movements during this quarter (compared with 10,786 for the same period in 2020), increase of 121%.

This resulted in an average 259 movements per 24 hours (compared to 117 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 2021	119	5,771	76	7	0	4	19	2,805	12	**8,813**
Nov 2021	128	4,319	85	12	0	6	9	2,408	12	**6,979**
Dec 2021	146	5,887	106	8	0	2	8	1,878	17	**8,052**
QTR Total	**393**	**15,977**	**267**	**27**	**0**	**12**	**36**	**7,091**	**41**	**23,844**

1.2 Passenger Statistics

A total of 1,884,580 passengers passed through LLA during the period October to December 2021 (compared with 589,584 for the same period last year), 1,873,351 on scheduled flights (99.4%) and 11,229 on charter flights (0.6%). This represents a increase in passengers of 220% and equates to an average 20,485 passengers per 24 hours (compared to 6,412 during the same quarter last year).

	Domestic	EU	Non-EU	Total
Oct 2021	86,591	555,396	113,677	**755,664**
Nov 2021	63,383	372,757	107,243	**543,383**
Dec 2021	67,795	408,793	109,057	**585,645**
QTR Total	**217,769**	**1,336,946**	**329,977**	**1,884,692**

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

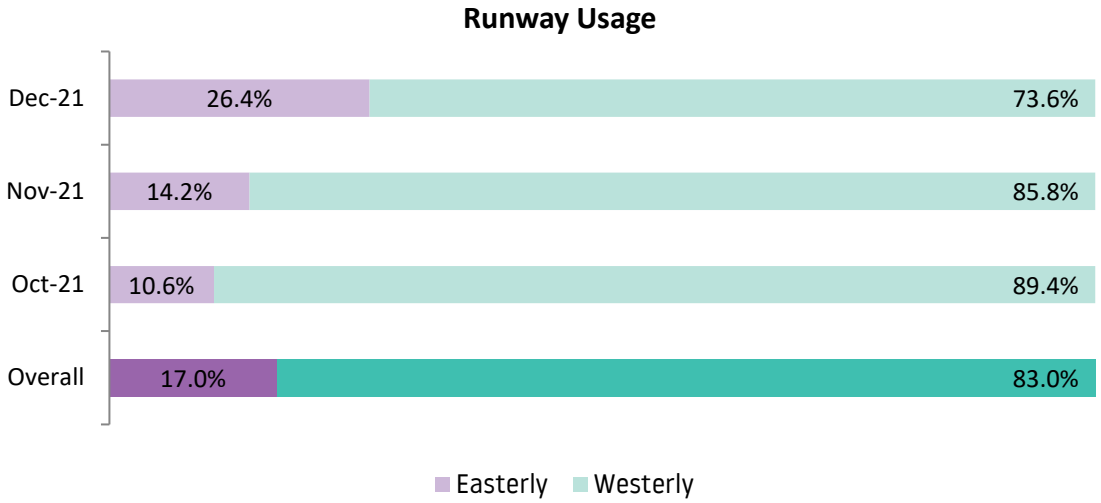
[1] Other relates to flights coming for maintenance and or departing aircraft that has made an unscheduled return to base

[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 17% easterly and 83% westerly (19%/81% split in 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.

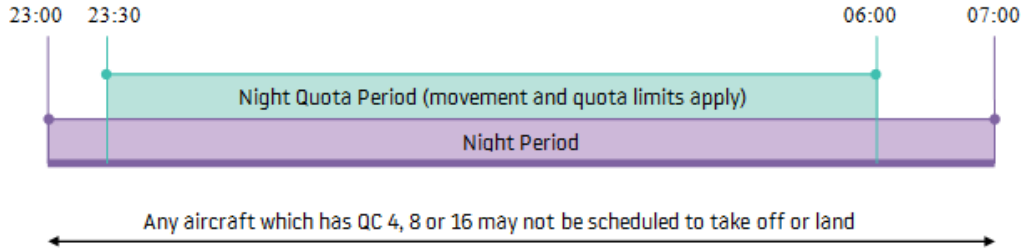
Aircraft are certified by the International Civil Aviation Organisation (ICAO) according to the noise they produce during specific certification tests conducted by the manufacturer. They are classified separately for both take-off and landing. The points are then allocated to different aircraft types 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 Airbus A321neo 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 October to December 2021, 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 2021	224	96.00	66
February 2021	150	78.50	45
March 2021	193	91.75	56
April 2021	203	87.75	68
May 2021	217	83.25	92
June 2021	197	94.50	169
July 2021	242	104.75	200
August 2021	389	125.50	385
September 2021	358	113.75	362
October 2021	478	131.00	406
November 2021	374	120.75	285
December 2021	454	149.00	289
QTR Total	**1,306**	**400.75**	**980**
Total for preceding 12 months	*3,479*	*1276.50*	*2,423*

1.5 Day/Night Ratio of Movements - Actual

There were 2,740 night operations during the quarter (compared to 1,337 for the same quarter last year), an average 30 movements per night (compared to 15 last year). Arriving aircraft accounted for 50% 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. 67% 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 89% day / 11% night (88% day / 12% night in 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 2021	917	924	1,841	140	84	4	62	309	**2,150**
Feb 2021	767	761	1,528	95	55	10	35	211	**1,739**
Mar 2021	928	962	1,890	127	66	7	49	268	**2,158**
Apr 2021	1,040	1,067	2,107	136	67	8	60	292	**2,399**
May 2021	1,414	1,428	2,842	147	70	14	78	351	**3,193**
Jun 2021	1,981	1,950	3,931	136	61	20	149	422	**4,353**
Jul 2021	2,600	2,511	5,111	147	95	2	198	532	**5,643**
Aug 2021	3,465	3,351	6,816	298	91	1	384	926	**7,742**
Sept 2021	3,767	3,711	7,478	280	78	2	360	862	**8,340**
Oct 2021	3,914	3,854	7,767	340	138	31	375	1,045	**8,813**
Nov 2021	3,092	3,096	6,188	253	121	23	262	791	**6,979**
Dec 2021	3,538	3,610	7,148	344	110	10	279	904	**8,052**
QTR Total	**10,544**	**10,560**	**21,105**	**937**	**369**	**64**	**916**	**2,740**	**23,844**
Total for preceding 12 months	*27,423*	*27,225*	*54,648*	*2,443*	*1,036*	*132*	*2,291*	*6,913*	*61,561*

1.6 Day/Night Ratio of Movements – Forecast

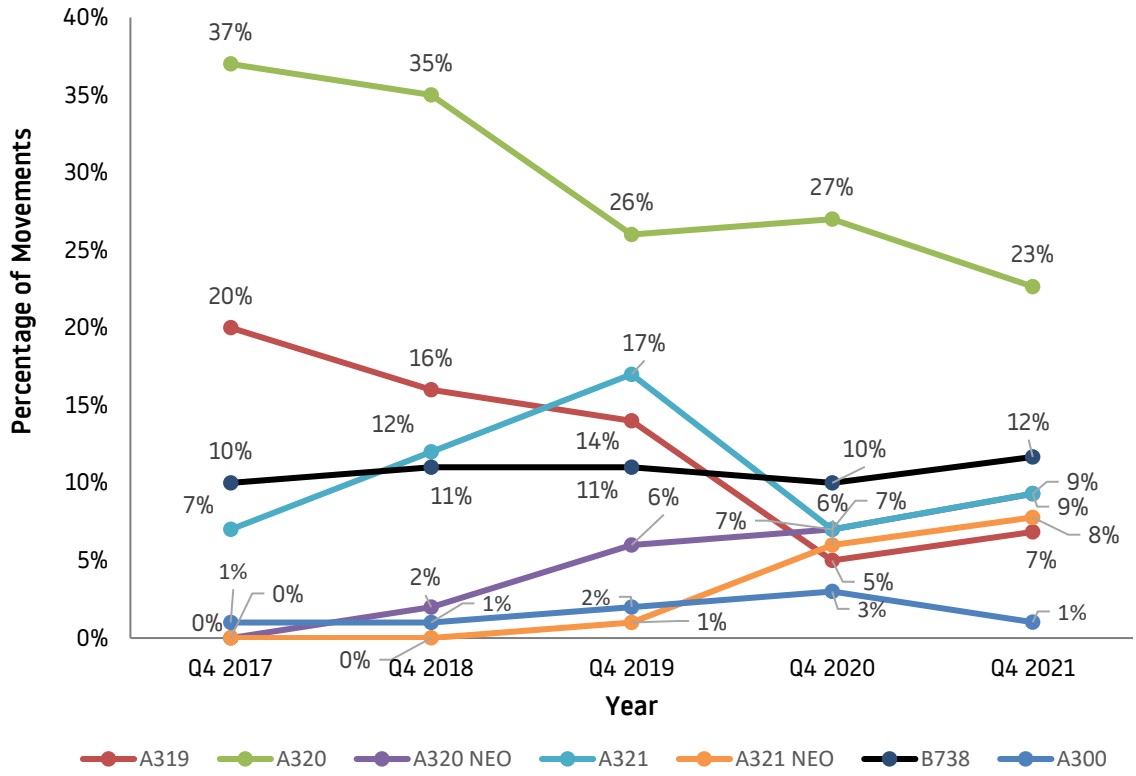
As a result of COVID-19 forecasts are uncertain and forecasts change based on the number of COVID cases in other countries and the UK Foreign and Commonwealth Office's advice.

	2022 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 2022	8,890	489	413	1,044	9,934
February 2022	8,402	472	374	988	9,390
March 2022	10,123	463	327	929	11,052
April 2022	11,039	779	550	1,505	12,544
May 2022	11,965	894	613	1,737	13,702
June 2022	11,531	896	592	1,739	13,270
July 2022	11,414	1,073	639	1,969	13,383
August 2022	10,870	1,069	606	1,925	12,795
September 2022	11,078	868	538	1,664	12,742
October 2022	11,190	879	512	1,613	12,803
November 2022	8,834	435	269	822	9,656
December 2022	10,284	575	337	1,083	11,367
*Total for following 12 months**	*125,621*	*8,892*	*5,770*	*17,018*	*142,639*

**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. The percentage of aircraft movements by the newer generation NEO type aircraft has now reached 17% from only 2% three years ago.



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 2021	Daytime	196	8	1,583	108	1,033	43	469	0	39	20	**3,499**
	Night-time	47	2	348	43	355	11	90	0	2	0	**898**
Nov 2021	Daytime	232	6	1,288	151	871	79	411	5	41	12	**3,096**
	Night-time	20	0	196	3	92	7	77	0	1	0	**396**
Dec 2021	Daytime	527	5	1,388	329	817	111	403	3	23	4	**3,610**
	Night-time	82	0	185	16	62	22	62	0	2	0	**431**
QTR	**Total**	**1,104**	**21**	**4,988**	**650**	**3,230**	**273**	**1,512**	**8**	**108**	**36**	**11,930**
	Daily Average	*12*	*<1*	*54*	*7*	*35*	*3*	*16*	*<1*	*1*	*<1*	*118*

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 97.5%. 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
October 2021	1	£1,000
November 2021	5	£5,000
December 2021	3	£5,000
QTR	**9**	**£11,000**

	Airline or Aircraft Operator	Aircraft Type/Occurrence
October 2021	Privately owned aircraft	GLEX/1
November 2021	Privately owned aircraft	C500/1; C56X/1; GLF6/1; H25B/1; RJ85/1
December 2021	Privately owned aircraft and DHL Air	GLF6/2 and B752/1

3 ARRIVING AIRCRAFT

3.1 Arrivals Route Analysis

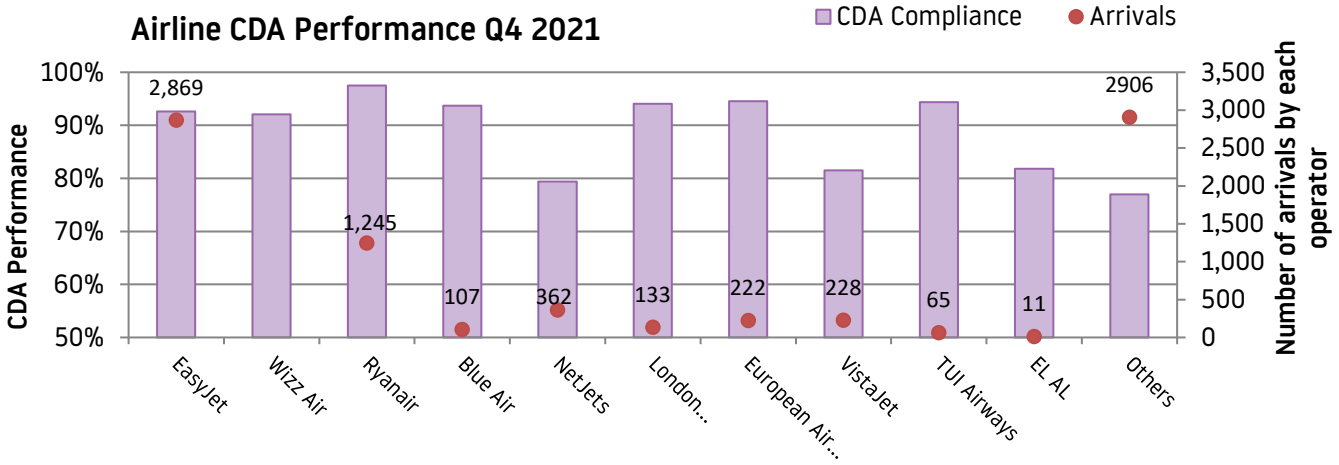
The following table reports the total number of arrivals differentiating between easterly (07), westerly (25) operations and helicopters.

		Arrivals			Total
		07	25	Heli	
October 2021	Daytime	409	3,404	18	**3,831**
	Night-time	60	526	0	**586**
November 2021	Daytime	447	2,635	10	**3,092**
	Night-time	37	356	1	**394**
December 2021	Daytime	931	2,605	2	**3,538**
	Night-time	109	364	0	**473**
QTR	**Total**	**1,993**	**9,890**	**31**	**11,914**
	Daily Average	*22*	*107*	*<1*	*129*

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.

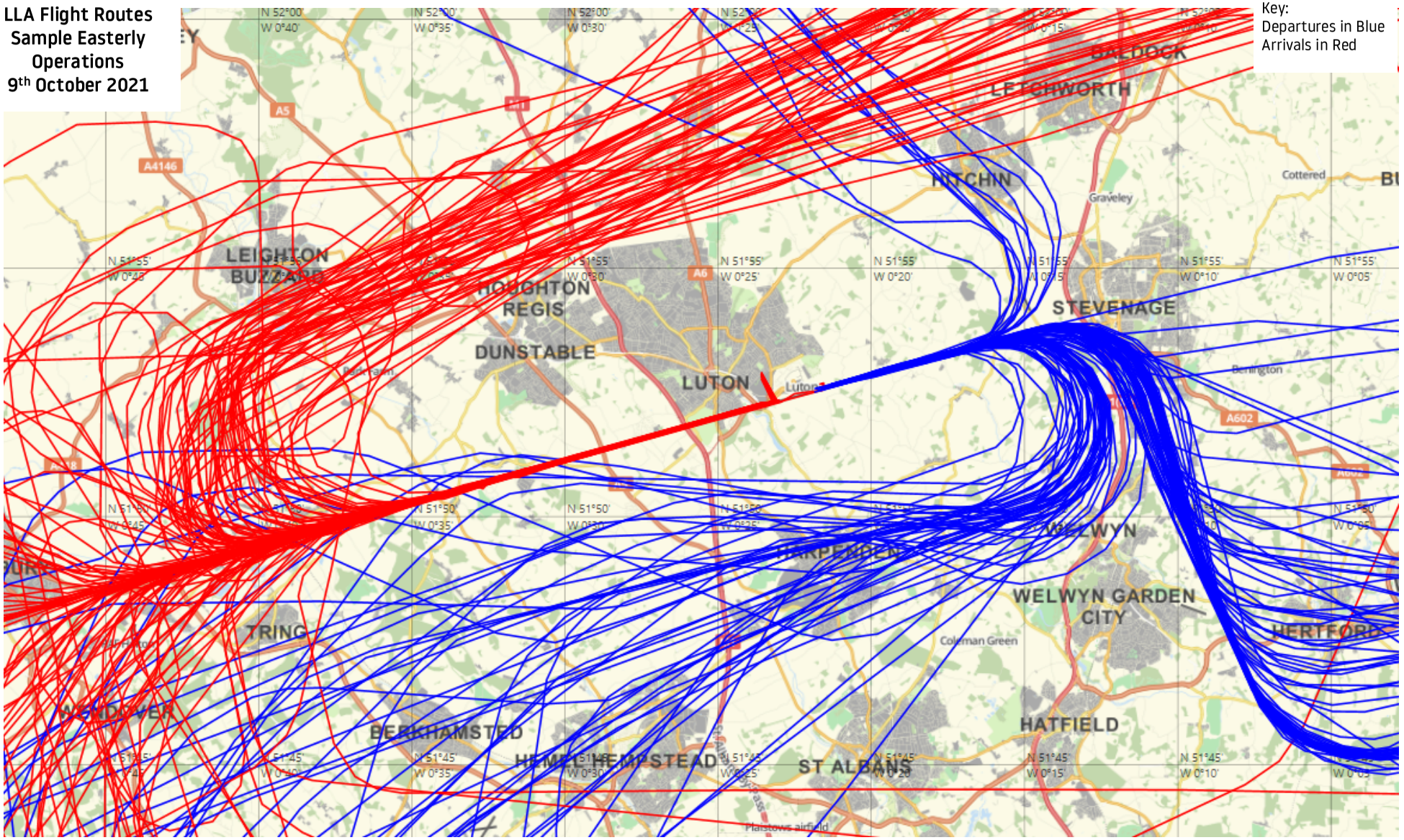
	All Arrivals			07 Easterly Arrivals			25 Westerly Arrivals		
	% CDA			*% CDA*			*% CDA*		
	Total	*Day*	*Night*	*Total*	*Day*	*Night*	*Total*	*Day*	*Night*
October 2021	**90%**	89%	91%	**94%**	94%	90%	**89%**	89%	91%
November 2021	**88%**	88%	83%	**91%**	93%	70%	**87%**	87%	85%
December 2021	**89%**	89%	85%	**90%**	90%	88%	**88%**	89%	85%
QTR Total	**89%**	89%	87%	**91%**	92%	85%	**88%**	88%	87%

The overall CDA achievement was 89% with several major LLA operators achieving high performance.

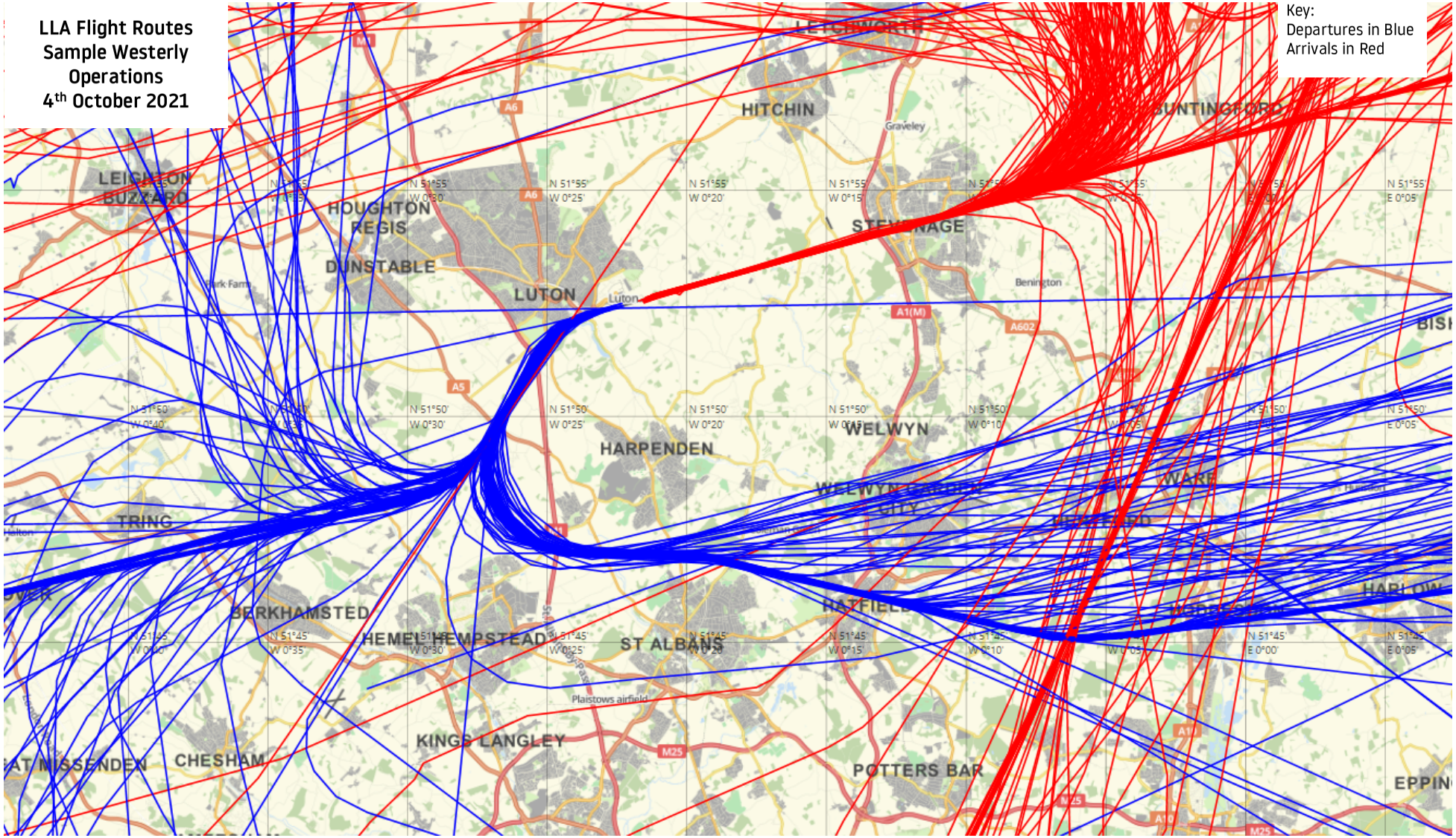


The maps overleaf, produced from the Topsonic Aircraft Noise & Track Monitoring System, identify samples of actual flown aircraft tracks operating from LLA (arrivals and departures during both easterly and westerly operations) for a typical 24-hour period within the fourth quarter of 2021.

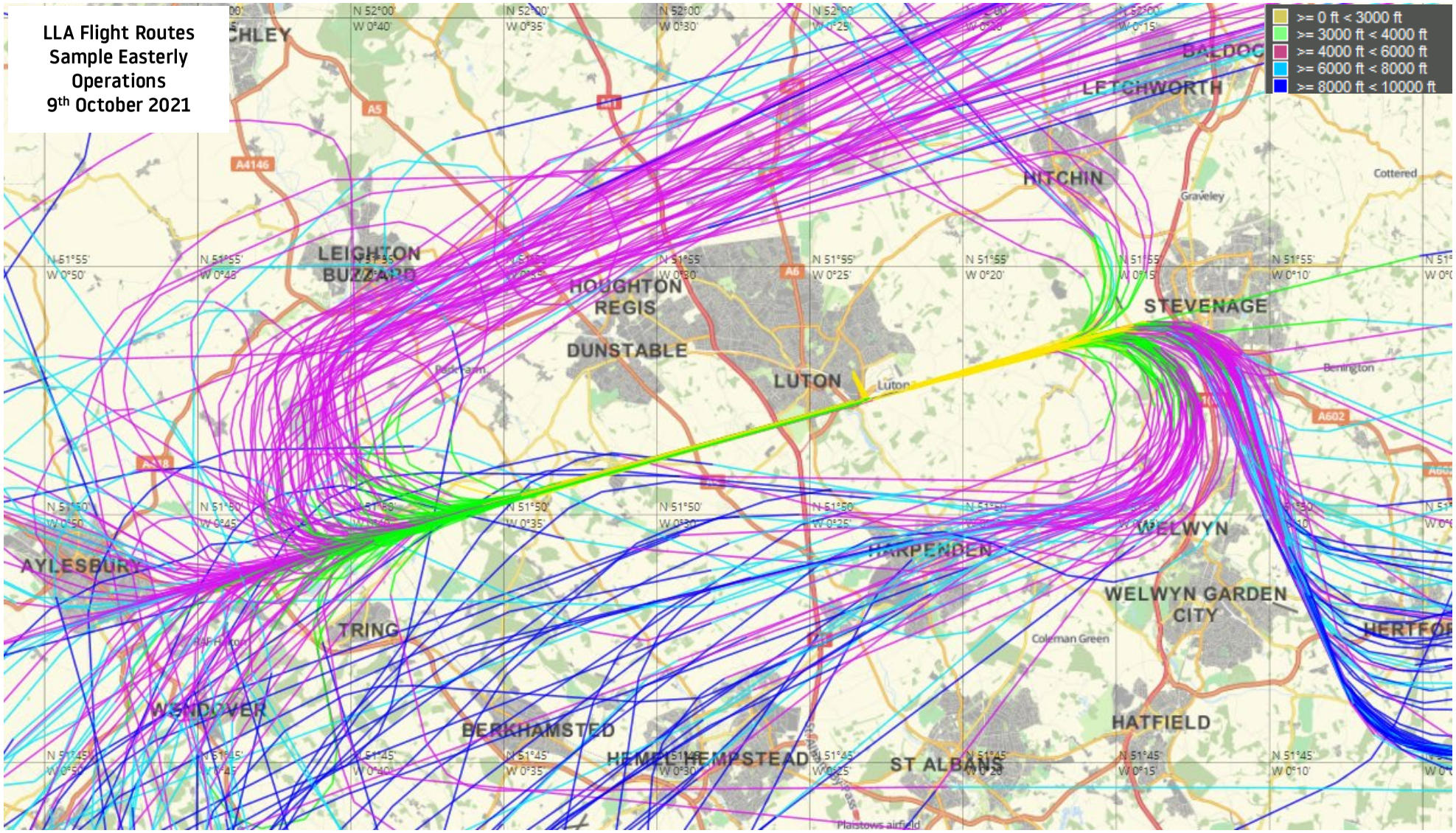
LLA Flight Routes
Sample Easterly Operations
9th October 2021

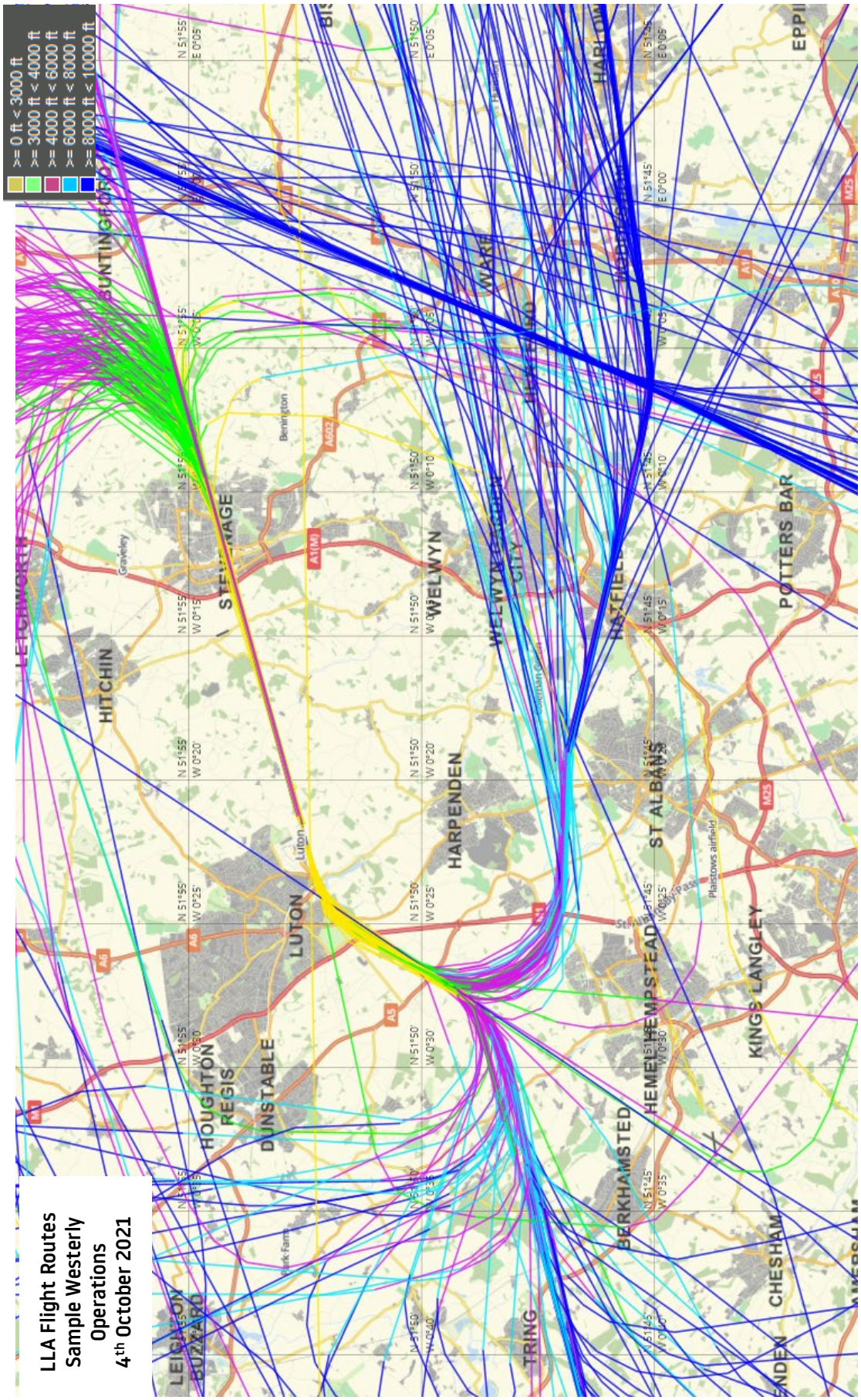


LLA Flight Routes
Sample Westerly
Operations
4th October 2021



LLA Flight Routes
Sample Easterly
Operations
9th October 2021





LLA Flight Routes
Sample Westerly Operations
4th October 2021

4 AIRCRAFT NOISE

During the 4th Quarter of 2021, the maximum noise levels less than 79 dB(A) was recorded by 99.8% of correlated departing aircraft.

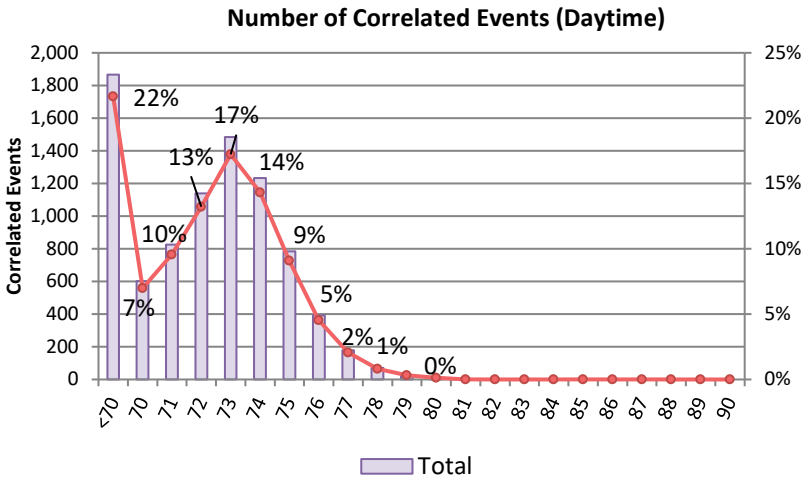
The maximum noise level less than 76 dB(A) was recorded by 96.6% of correlated departing aircraft.

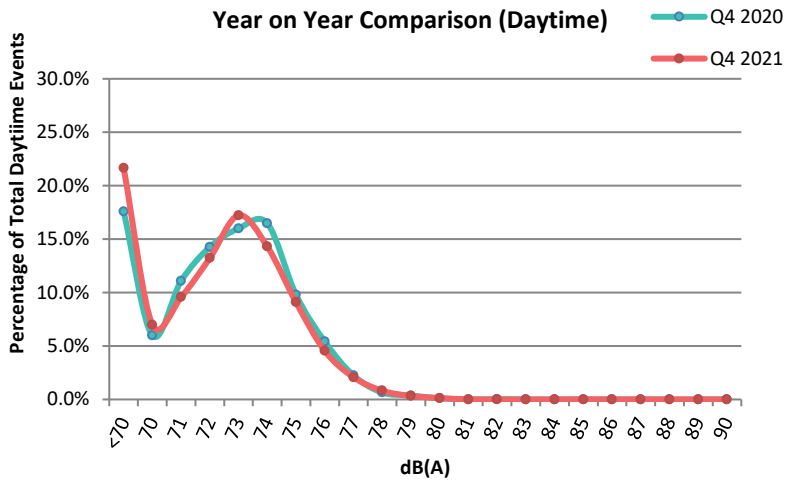
There were three daytime noise violations in Q4 2021.

4.1 Daytime Noise Levels – October to December 2021

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	698	481	688	**1,867**
	70	225	167	210	**602**
	71	302	246	277	**825**
	72	421	328	391	**1,140**
	73	588	404	493	**1,485**
	74	409	374	450	**1,233**
	75	252	243	289	**784**
	76	123	146	123	**392**
	77	45	82	52	**179**
	78	23	27	21	**71**
	79	7	14	7	**28**
	80	3	3	5	**11**
	81	0	1	0	**1**
	82	0	0	0	**0**
	83	0	0	0	**0**
	84	0	0	0	**0**
	85	0	1	0	**1**
	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		**3,097**	**2,517**	**3,006**	**8,620**

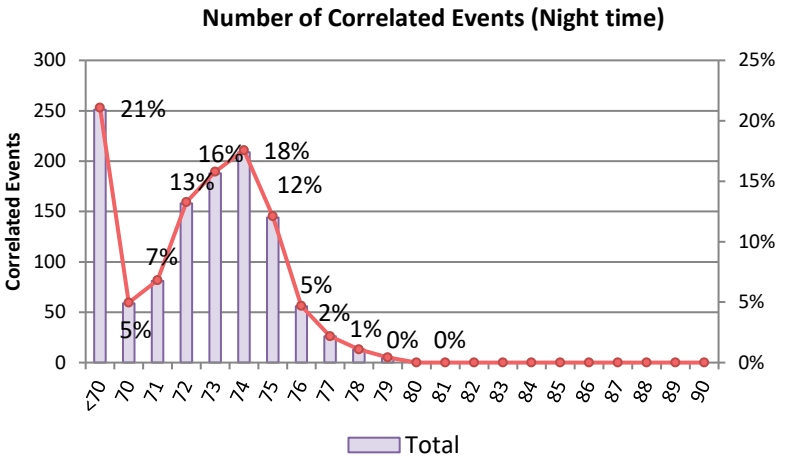


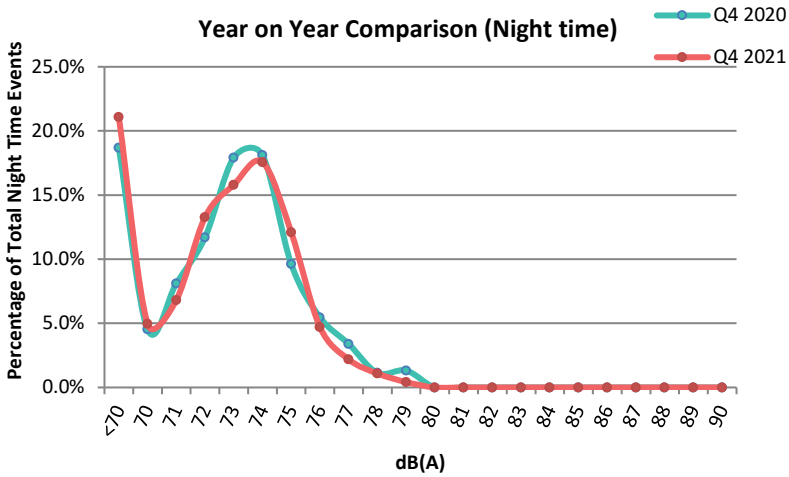


4.2 Night Noise Levels – October to December 2021

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	105	65	81	**251**
	70	27	16	16	**59**
	71	32	26	23	**81**
	72	59	43	56	**158**
	73	79	53	56	**188**
	74	87	55	67	**209**
	75	58	41	45	**144**
	76	14	26	16	**56**
	77	11	9	6	**26**
	78	5	6	2	**13**
	79	1	3	1	**5**
	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		**478**	**343**	**369**	**1,190**





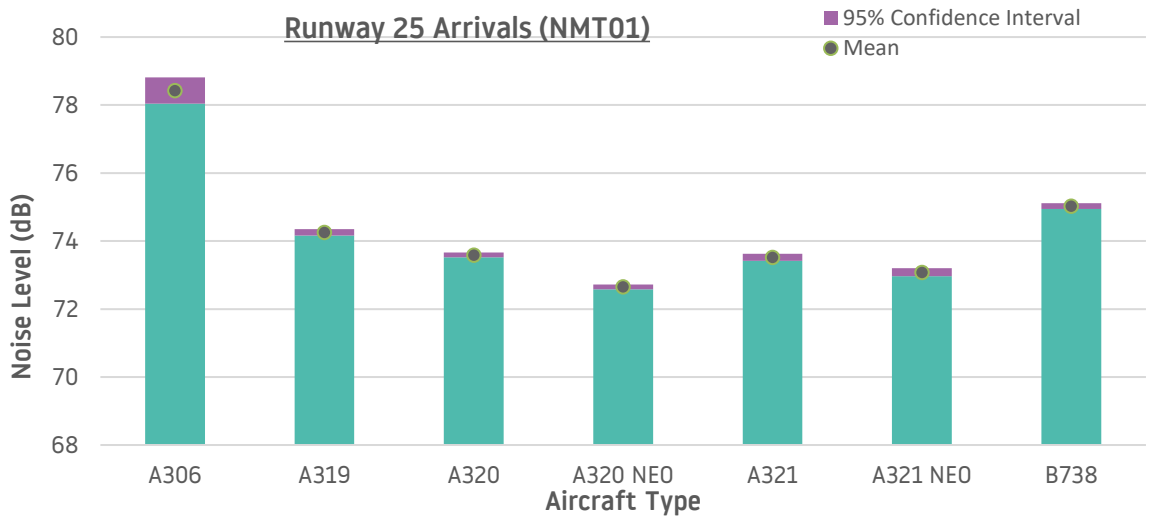
N.B It should be noted that the detection thresholds for the noise monitoring terminals are set at the lowest level to record the maximum number of aircraft noise events. However, a number of smaller aircraft types, such as business jets and propeller aircraft, get very close to but do not reach the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

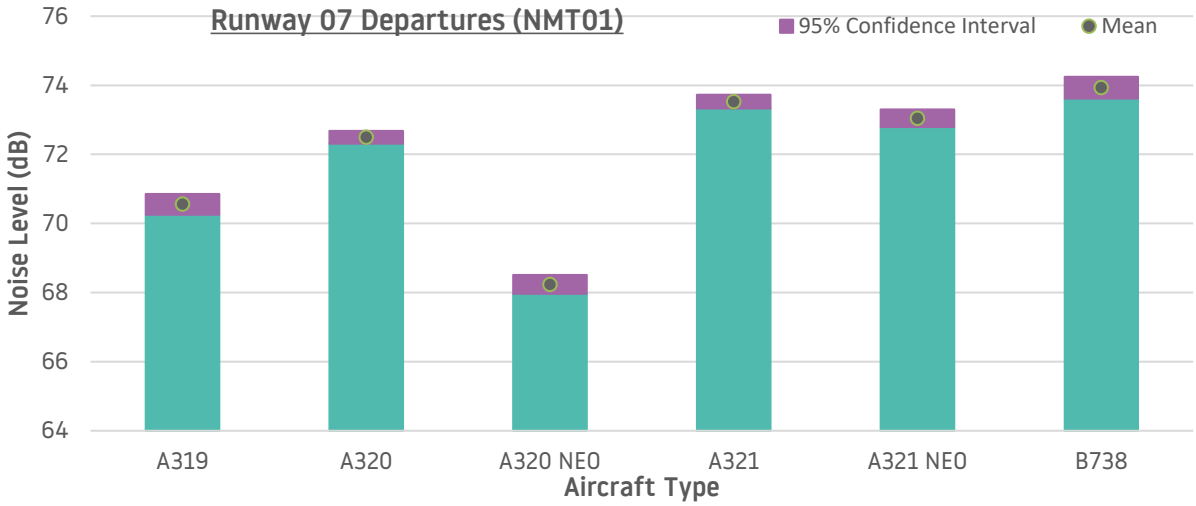
Weather conditions can also effect the number of noise monitoring events recorded in the table; for example, if winds are greater than 10m/s, results from noise monitors will be invalid and therefore will not been taken into account.

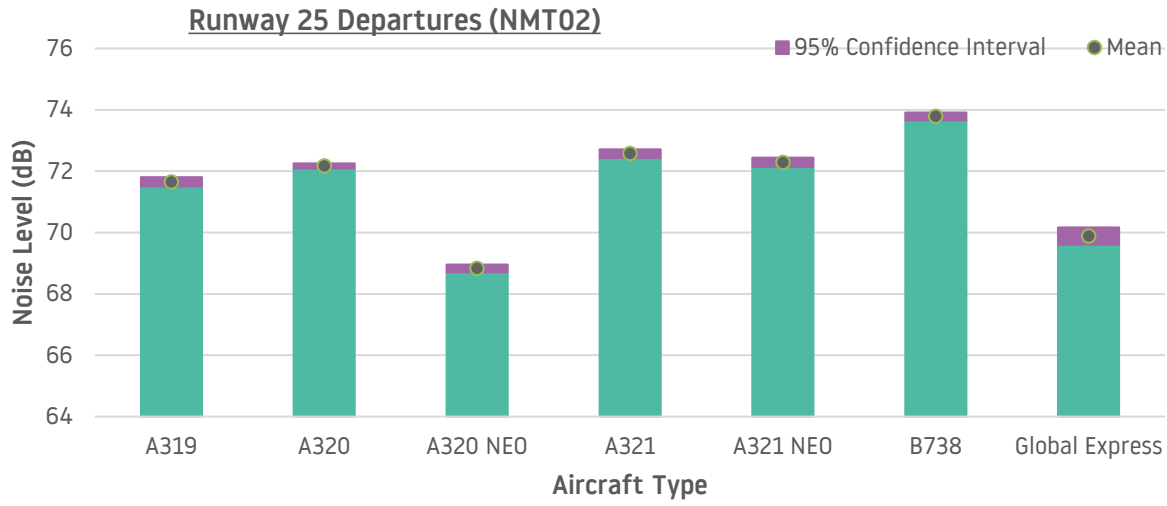
**One of the three fixed noise monitors, NMT3 at Pepsal End, was out of service for maintenance for 11 days in October 2021. No noise data was captured during this period.*

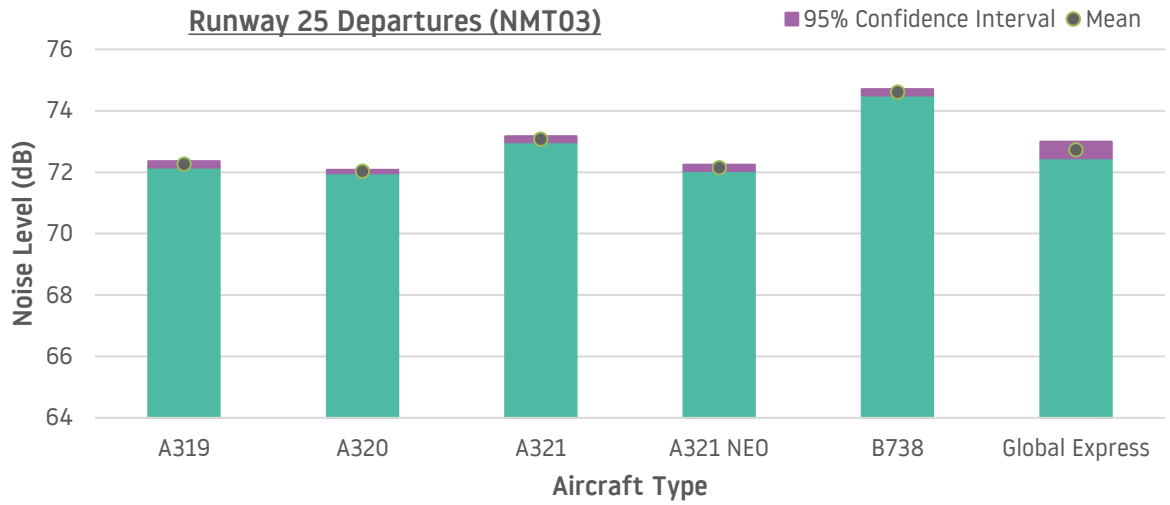
4.3 Average Noise Monitor results by Aircraft Type (October to December 2021)

The following graphs show the average noise and 95% confidence level for the three fixed noise monitors for the period October - December 2021. 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. We recommend a sample size of over 100 results to be compared. Therefore, only aircraft types with a sample size of over 100 have been shown.

	A306	A319	A320	A320 NEO	A321	A321 NEO	B738	Global Express
NMT01 (Arr)	104	631	2209	883	875	746	1140	449
NMT01 (Dep)	14	137	467	195	222	164	219	92
NMT02 (Dep)	93	635	2158	773	850	724	1104	352
NMT03* (Dep)	70	454	1,486	46	640	469	902	187

**One of the three fixed noise monitors, NMT3 at Pepsal End, was out of service for maintenance for 11 days in October 2021. No noise data was captured during this period.*

4.4 Noise Violations during Quarter (October to December 2021)

There were three noise violations during the period. The operator was fined £1,000 for each noise violation. The events happened during the day-time period.

	Date/Time (Local)	Aircraft Type	Noise Level
Daytime	16/10/2021 14:52 hrs	MD87 (Executive Jet)	87 dB(A)
Daytime	10/11/2021 10:00 hrs	F900 (Executive Jet)	81 dB(A)
Daytime	19/11/2021 09:25 hrs	MD87 (Executive Jet)	85 dB(A)
Total Penalties Collected			**£3,000**

4.5 Noise Insulation Scheme Update

In Quarter 4, with pandemic restrictions lifting the noise insulation scheme re-started with our new contractor Newview Homes. 30 Properties were re-contacted during Q4, these were people who had accepted the scheme during Q1 of 2020 but the works could not be carried out because of COVID-19 impacts. The NIS scheme will continue to gather pace during 2022 and further eligible properties will be contacted.

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, dining rooms, kitchen-diners and bedrooms.

5 NOISE CONTOURS

5.1 Night Noise Contours – October to December 2021

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 2021 Q2 and 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 2020 at the fixed noise monitors.

5.1.2 Noise Contour Results

The resulting noise contours are shown in the attached Figure A11060-NN21-Q4 at values from 48 to 63 dB LAeq,8h. Contours at 66, 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 2021), and the equivalent quarter during the previous year (October – December 2020).

Contour Value (dB $L_{Aeq,8h}$)	Contour Area (km^2)		
	Oct - Dec 2020	Jul – Sep 2021	Oct – Dec 2021
48	15.8	25.6	27.0
51	9.0	14.7	15.3
54	5.2	8.7	8.9
57	2.6	4.8	5.2
60	1.5	2.3	2.5
63	0.9	1.4	1.4
66	0.6	0.9	0.9(1)
69	0.4	0.6	0.6(1)
72	0.2	0.4	0.4(1)
W/E Split (%)	80/20	60/40	84/16

(1) The 66 to 72 dB LAeq,8h contours are not shown on the Figure A11060-NN21-Q4 as they are too small to individually distinguish, and are largely restricted to the airport site.

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 2020	Jul – Sep 2021	Oct – Dec 2021
1900D	12	21	26
737400	38	n/a	n/a
737800	130	282	386
757RR	209	230	232
A300-622R	154	79	96
A319-131	35	79	128
A320-211 (ceo)	222	572	425
A320-211 (neo)	86	459	270
A321-232 (ceo)	156	263	302
A321-232 (neo)	n/a	288	314
A330-301	n/a	n/a	19
CL600	11	n/a	22
CL601	27	n/a	43
CNA525C	n/a	n/a	20
CNA55B	n/a	n/a	15
CNA560XL	20	n/a	27
CNA680	n/a	n/a	21
CNA750	10	n/a	n/a
EMB145	20	n/a	24
F10062	15	n/a	40
GIV	n/a	n/a	30
GV	116	17	251
LEAR35	11	n/a	12
Other	65	28	36
Total	**1,337**	**2,318**	**2,739**

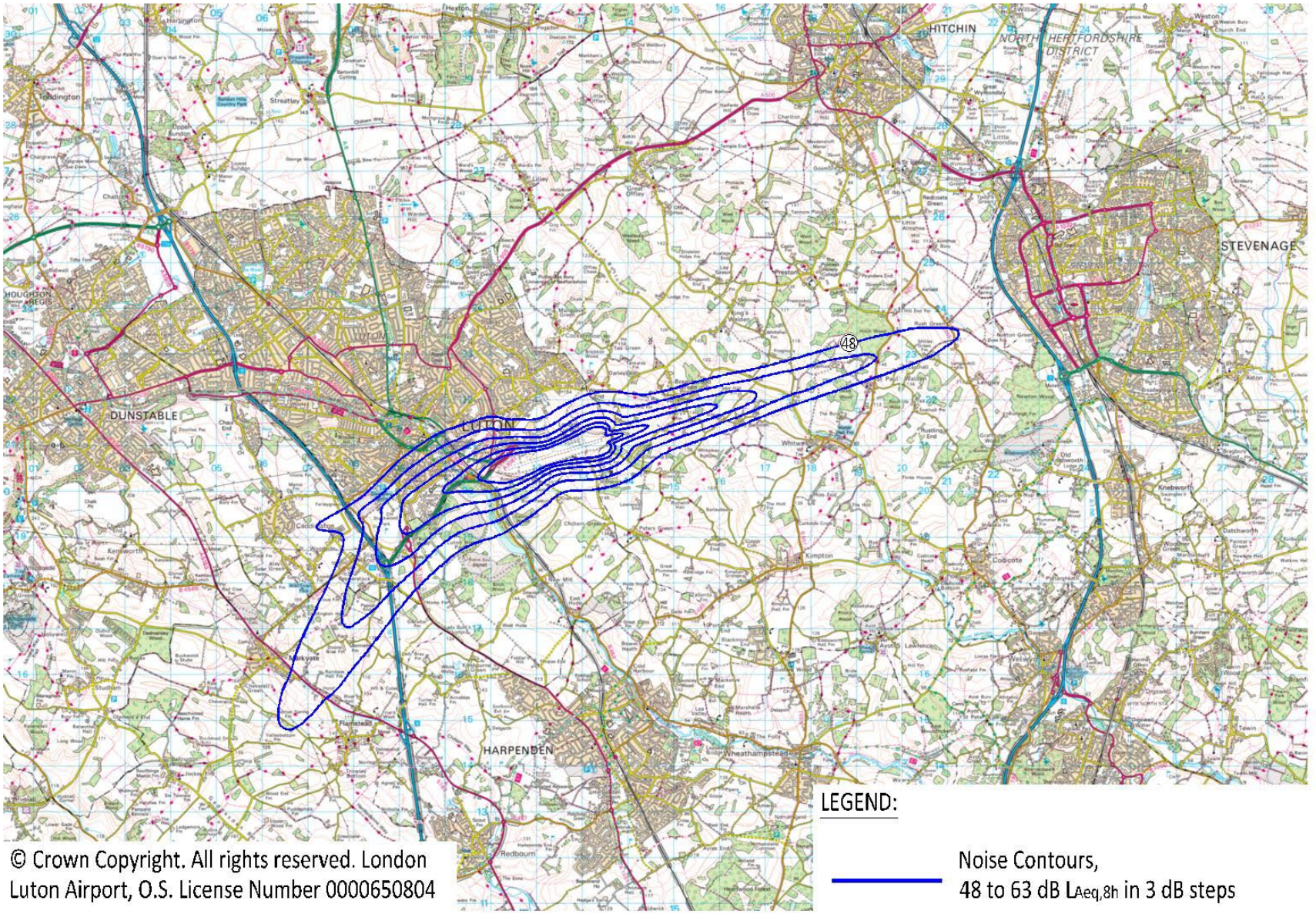
Table 2: Night-time Aircraft Movement Numbers by Aircraft Type

5.1.4 Noise Contour Comparison

The total number of aircraft movements has doubled compared to the same quarter in 2020, although the number remains 25% below the number recorded in 2019 before the COVID-19 pandemic.

The area of the 48 dB(A) noise contour has increased by 71% compared to the same quarter last year, as a result of the increase in movements, although it is remains around 17% below the area in 2019.

The number of movements, and therefore the contour areas, have also increased compared to the previous quarter (July – September 2021).



6 COMPLAINTS

6.1 Total Complaints relating to LLA aircraft operations

	4th QTR 2021	4th QTR 2020
Total No. of Complaints relating to LLA aircraft operations	1108	739
No. of Complainants	57	57
No. of General Complaints	113	40
No. of Specific Complaints	995	699
Average No. of Complaints per Complainant	19.4	12.9
No. of Aircraft Movements per Complaint	10.1	12.2

In line with the recovery of aviation and increase in aircraft movements, a total of 1.108 complaints relating to LLA aircraft operations were received by the Flight Operations Department during the last quarter. This is compared to the 739 complaints which were received for the same period last year. It should be noted that in the fourth quarter of 2021, 94% of complaints were received from 10 individuals and 52% from two individuals.

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

Oct 2021 771 complaints (725 Specific Complaints, 46 General Complaints)
Nov 2021 182 complaints (150 Specific Complaints, 32 General Complaints)
Dec 2021 155 complaints (120 Specific Complaints, 35 General Complaints)

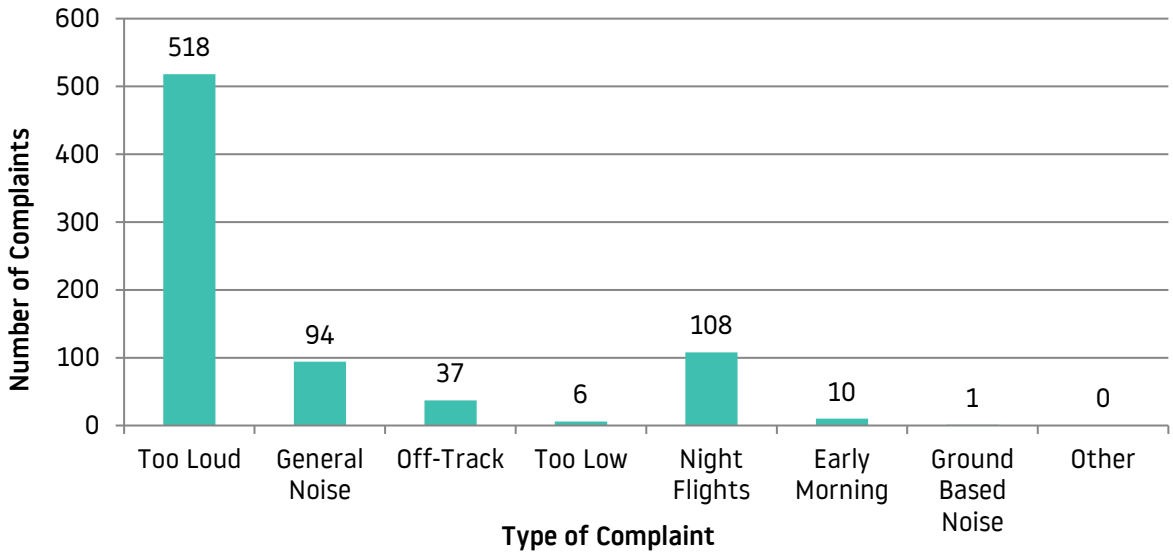
In Quarter 4 one complainant made 334 complaints. At the request of the Noise and Track Committee, the following text and graphs omit complaint numbers which are outliers caused by excessively high numbers of complaints from one individual to ensure the Committee can continue to identify patterns and areas of concern from the complaint data. These are:
6.2 Type of complaint
6.3 Nature of disturbance
6.4 Complaints by aircraft types
6.5 Origin of complaints

A further 26 complaints not attributable to LLA traffic were received throughout the quarter, compared to 138 complaints for the period October to December last year.

Out of 57 total complainants, there were 36 that contacted the airport only once meaning that 21 complainants generated 1.072 complaints.

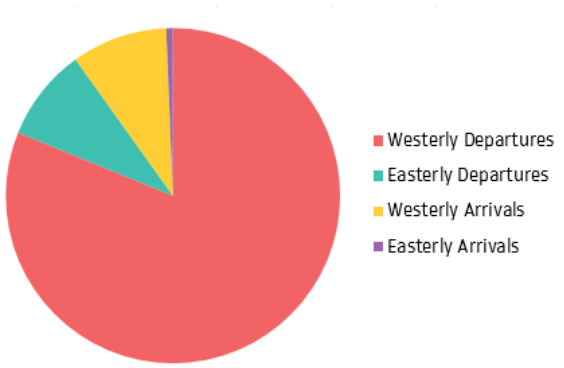
6.2 Type of Complaint

The types of complaint received by the Flight Operations Department from October to December 2022 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 October to December 2021.



Within the 508 specific aircraft complaints concerning westerly departures, 492 complaints involved aircraft on the Match/Detling heading, 13 related to aircraft following Compton flight route, 3 related to aircraft using the Olney route and no complaints were recorded about aircraft following an off-airways routing.

With regard to the 56 complaints attributed to easterly departures, 53 related to aircraft following the Compton flight route and 1 aircraft on the Match route. There were 2 specific complaints relating to the easterly Olney departure route and no complaints were recorded about aircraft following an off-airways routing.

In total the Flight Operations Department received 62 specific complaints regarding arrivals. 58 of these complaints were about westerly arrivals and a further 4 concerning easterly arrivals.

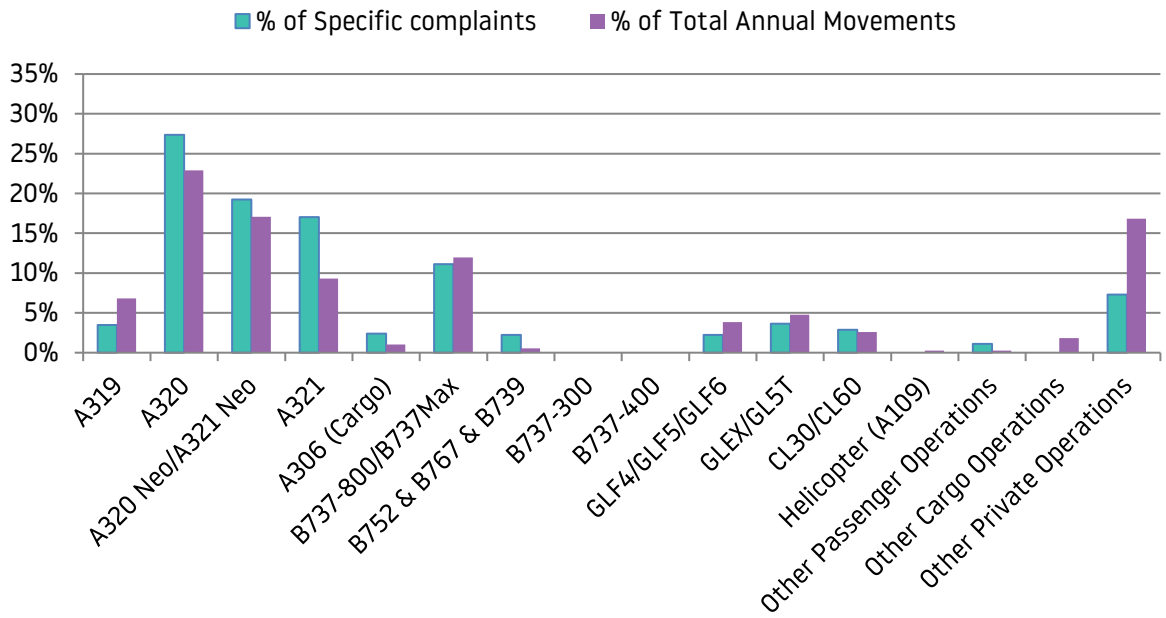
6
Complainants
reported noise disturbance at night (compared to **21 Complainants** for the same Quarter last year)

Departing aircraft accounted for 60% of the 99 specific night complaints and 40% involved arrivals. Cargo flights, involving A306 and B752 aircraft were reported in 15% of night complaints, whilst passenger aircraft accounted for 63% of night complaints. Furthermore, 21% of night complaints correlated to executive aircraft.

108 (14%)
Complaints
concerning night noise disturbance from LLA operations

6.4 Complaints by aircraft type

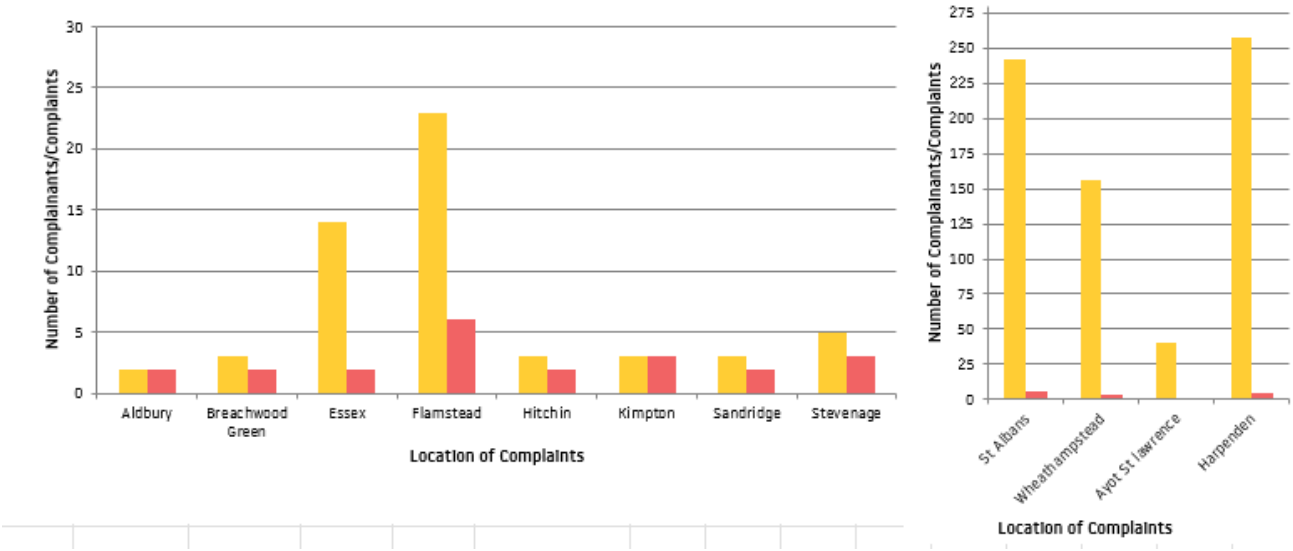
The diagram below shows aircraft types generating specific complaints.



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 2021.

The communities with one complainant include Ayot St Lawrence, Berkhamstead, Caddington, Chesham, Dagnall, Hemel Hempstead, Letty Green, Little Gaddesden, Luton, Markyate, Preston, Redbourn, Sandon, Slip End, Sudbury, Suffolk, Walkern, Ware, Whitwell.



6.6 Complaints Analysis

During Quarter 4 there has been an increase in complaints compared to the same quarter last year however, the number of complainants has remained the same, compared to the same quarter last year. this is thought to be due to a number of reasons:

- The number of complaints was still significantly higher during the quarter. LLA is aware of a campaign to increase complaints during the quarter. In response to this campaign LLA held an online webinar and public surgery event.
- Similar to previous quarters, a few individuals are making many complaints, in Q4 94% of complaints were received from 10 individuals and 52% from two individuals.
- The wind direction was predominantly westerly (83%) and therefore 61% 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%
Email	75%
Travis	23%

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 92% of concerns within 8 days and 99% 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	43.4%
1	9.7%
2	22.4%
3	12.1%
4	1.2%
5	1.4%
6	0.4%
7	0.6%
8	0.4%
9	6.3%
10	0.6%
11	0.1%
12	0.1%
13	0.4%
14	0.3%
15	0.3%
16	0.1%
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 to the airport although these were offered and declined by residents within the community.

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 this continued into the first and second half of 2021. We are looking to relaunch the public surgeries on a schedule for 2022. Details will be published on our website when available. (https://www.london-luton.co.uk/corporate/community/noise/noise-surgeries)