Quarterly Monitoring Report
Qtr 4 2018

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 to December 2018.

KEY MONITORING INDICATORS – 4th QUARTER 2018

Parameter		4th Quarter 2018	4th Quarter 2017
Total Passenger Number	↑	3,910,219	3,475,718
Total Aircraft Movements	↑	32,630	30,676
Night Movements (23.00 – 06.59)	↑	3,811	3,192
Early Morning Movements (06.00 – 06.59)	↑	1,434	1,232
Aircraft Movement and Quota Count limits (per rolling 12-month period)			
Night Quota Movements (*9,650 limit*)	↑	8,487	7,982
Night Quota Count (*3,500 limit*)	↑	3105.75	2,723.00
Early Morning Shoulder (*7,000 movements*)	↓	5,794	5,962
24hr CDA (% achievement)	↑	91%	89%
Day CDA (% achievement)	↑	91%	89%
Night CDA (% achievement)	↑	90%	88%
Track Violations	↓	8	23
Departure Noise Infringements (Day)	-	0	0
Departure Noise Infringements (Night)	-	0	0
Noise Monitor Results			
No. Day (Night) > 80 dB(A)	↑	29 (0)	23 (0)
No. Day (Night) > 75 dB(A)	↑	2,109 (255)	1,816 (285)
No. Day (Night) > 70 dB(A)	↑	11,468 (1,294)	10,323 (1,077)
Night Noise Contour Area (48 dB $L_{Aeq, 8h}$)	↑	32.0 km	25.6 km
Noise Complaints	↓	1,455	2,446
Complainants	↑	147	144
Number of New Complainants	↓	39	56
Largest Source of Complaints	-	Deps. West	Deps. West
Origin of Concerns (>5 Complainants)	-	Flamstead Harpenden Knebworth St Albans Wheathampstead	Flamstead Harpenden Markyate Sandridge St Albans Wheathampstead
Westerly/Easterly Runway Split (%)	-	67/33	95/5

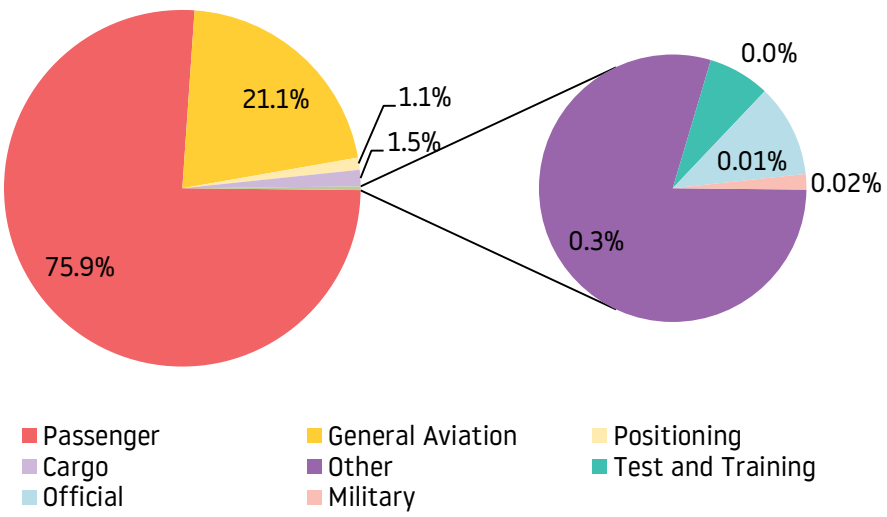
1 AIR TRAFFIC DATA

1.1 Aircraft Movements

There were a total of 32,630 aircraft movements during this quarter (compared with 30,676 for the same period in 2017), increase of 6.4%.

This resulted in an average 355 movements per 24 hours (compared to 333 last year).

Total Aircraft Movements (%)



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 2018	133	9,532	122	2	0	6	31	2,532	4	**12,362**
Nov 2018	200	7,087	110	1	2	2	32	2,178	0	**9,612**
Dec 2018	153	8,157	120	6	0	4	22	2,190	4	**10,656**
QTR Total	**486**	**24,776**	**352**	**9**	**2**	**12**	**85**	**6,900**	**8**	**32,630**

1.2 Passenger Statistics

A total of 3,910,219 passengers passed through LLA during the period October to December 2018 (compared with 3,475,718 for the same period last year), 3,855,718 on scheduled flights (98.6%) and 54,501 on charter flights (1.4%). This represents an increase in passengers of 12.5% year on year and equates to an average 42,502 passengers per 24 hours (compared to 37,779 during the fourth quarter last year).

	Domestic	EU	Non-EU	Total
Oct 2018	108,386	995,664	413,181	**1,517,231**
Nov 2018	85,197	714,231	324,338	**1,123,766**
Dec 2018	90,811	815,305	363,106	**1,269,222**
QTR Total	**284,394**	**2,525,200**	**1,100,625**	**3,910,219**

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

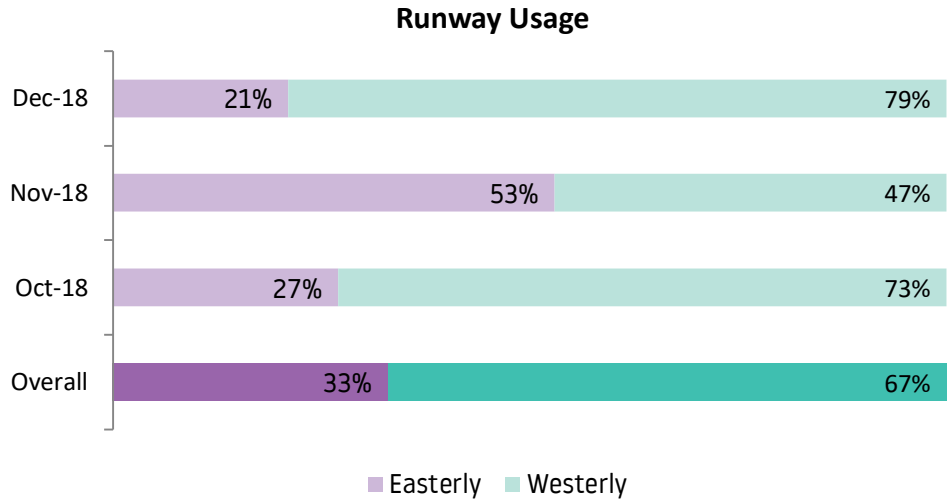
[1] Other relates to flights coming for maintenance and or departing aircraft that has made an unscheduled return to base

[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 33% easterly and 67% westerly (compared to 5% / 95% 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 06:00 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.

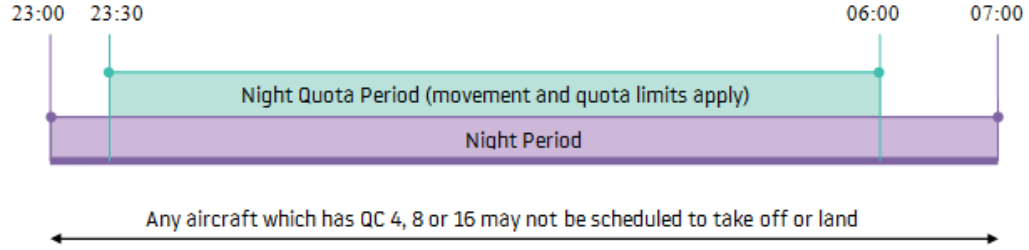
Aircraft are certified by the International Civil Aviation Organisation (ICAO) according to the noise they produce during specific certification tests conducted by the manufacturer. They are classified separately for both take-off and landing. The points are then allocated to different aircraft types 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
Greater than 101.9	QC 16	Some Boeing 747-100/200 Antonov 124/225
99 to 101.9	QC 8	Some Boeing 747-400 McDonnell Douglas DC-8
96 to 98.9	QC 4	Boeing 737-200ADV McDonnell Douglas DC-10
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 07:00 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 - 0600) 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 – 0700) 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 2018, 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 (2330-0600)		Early Morning Shoulder (0600-0700)
	Movements Limited to 9,650 Annually	*Quota Count Limited to 3,500 Annually*	*Movements Limited to 7,000 Annually*
Jan 2018	413	172.50	294
Feb 2018	404	149.50	284
Mar 2018	581	218.50	378
April 2018	778	262.25	558
May 2018	976	324.25	638
June 2018	849	318.00	530
July 2018	969	356.50	500
August 2018	912	358.00	583
September 2018	742	288.50	595
October 2018	871	282.50	642
November 2018	459	180.25	397
December 2018	533	195.00	395
QTR Total	**1,863**	**657.75**	**1,434**
Total for preceding 12 months	*8,487*	*3105.75*	*5,794*

1.5 Day/Night Ratio of Movements - Actual

There were 3,811 night operations during the quarter (compared to 3,192 for the fourth quarter 2017), an average 41 movements per night (compared to 35 last year). Arriving aircraft accounted for 56% 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. 65% 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 89% / 11% for the same quarter last year).

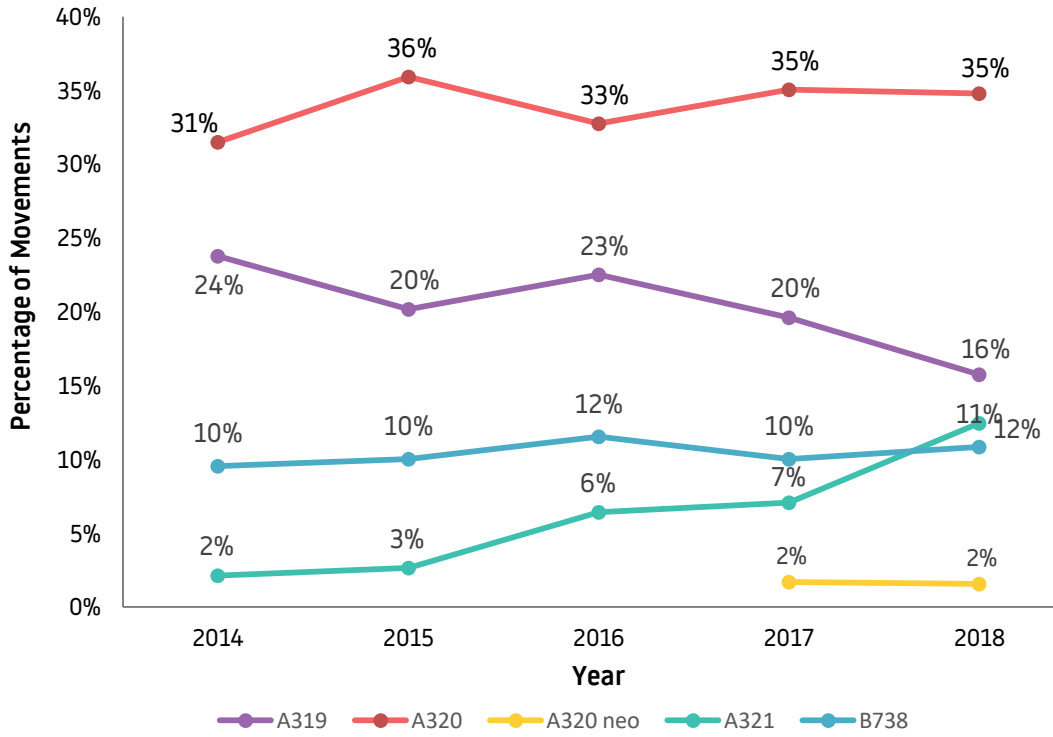
	Day Movements (0700-2300)			Night Movements (2300-0700)					Total
	Day movements			*Night Quota Period (2330-0559)*		*Early Morning Shoulder (0600-0659)*		*Total Night Movements (2300 – 0659)*	
	A	D	Total	A	D	A	D		
Jan 2018	4,302	4,269	8,571	260	153	66	228	817	**9,388**
Feb 2018	4,177	4,219	8,396	266	138	73	211	802	**9,198**
Mar 2018	4,771	4,902	9,673	384	197	98	280	1,109	**10,782**
April 2018	4,827	5,029	9,856	616	162	110	448	1,515	**11,371**
May 2018	5,209	5,577	10,786	758	218	150	488	1,821	**12,607**
June 2018	5,285	5,608	10,893	715	134	65	475	1,590	**12,483**
July 2018	5,534	5,896	11,430	802	167	49	451	1,646	**13,076**
Aug 2018	5,244	5,540	10,784	746	166	69	514	1,716	**12,500**
Sept 2018	5,231	5,470	10,701	619	123	87	508	1,534	**12,235**
Oct 2018	5,204	5,442	10,646	677	194	124	518	1,716	**12,362**
Nov 2018	4,256	4,345	8,601	307	152	119	278	1,011	**9,612**
Dec 2018	4,715	4,857	9,572	370	163	107	288	1,084	**10,656**
QTR Total	**14,175**	**14,644**	**28,819**	**1,354**	**509**	**350**	**1,084**	**3,811**	**32,630**
Total for preceding 12 months	*58,755*	*61,154*	*119,909*	*6,520*	*1,967*	*1,117*	*4,687*	*16,361*	*136,270*

1.6 Day/Night Ratio of Movements – Forecast

	2018/2019 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 2019	9,636	366	394	312	9,948
February 2019	9,284	405	363	888	10,172
March 2019	10,402	415	451	1,033	11,435
April 2019	10,471	680	661	1,554	12,025
May 2019	11,523	893	734	1,844	13,367
June 2019	11,477	1,034	705	2,001	13,478
July 2019	11,953	1,153	731	2,136	14,089
August 2019	11,223	1070	736	2,110	13,333
September 2019	11,323	991	739	1,986	13,309
October 2019	10,985	846	676	1,763	12,748
November 2019	8,920	396	372	885	9,805
December 2019	9,168	519	339	1,011	10,179
Total for following 12 months	126,365	8,768	6,901	17,523	*143,888*

1.7 Aircraft Movements by Type

The graph below shows the percentage of aircraft movements for our five 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 (08) and westerly (26) operations. Night movements quoted below departed between 23:00 hrs and 06:59 hrs.

		Departures											Total
		MATCH/ DETLING			*COMPTON*		*OLNEY*		*Other**		*Helicopter*		
		08	26 Conv.	26 RNAV	08	26	08	26	08	26	08	26	
Oct 2018	Daytime	793	12	2,105	486	1,356	171	464	8	27	0	20	**5,442**
	Night-time	85	0	269	65	242	19	48	1	3	0	0	**732**
Nov 2018	Daytime	1,293	5	1,111	658	611	304	295	24	22	2	20	**4,435**
	Night-time	161	0	134	50	51	26	34	3	2	0	0	**461**
Dec 2018	Daytime	548	9	2,011	325	1,295	130	480	7	36	0	16	**4,574**
	Night-time	77	2	240	27	90	12	34	0	2	0	0	**458**
QTR	**Total**	**2,957**	**28**	**5,870**	**1,611**	**3,645**	**662**	**1,355**	**43**	**92**	**2**	**56**	**16,321**
	Daily Average	*32*	*<1*	*64*	*17*	*40*	*7*	*15*	*<1*	*<1*	*<1*	*<1*	*177*

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 97.56%. 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 2018	6	£6,000
Nov 2018	2	£2,000
Dec 2018	0	£0
QTR	**8**	**£8,000**

	Airline or Aircraft Operator	Aircraft Type/Occurrence
Oct 2018	Ryanair	B738/1
	Privately owned aircraft	GLEX/2; CL25/1; CL60/1; H25B/1
Nov 2018	Privately owned aircraft	CL60/1; H25B/1

3 ARRIVING AIRCRAFT

3.1 Arrivals Route Analysis

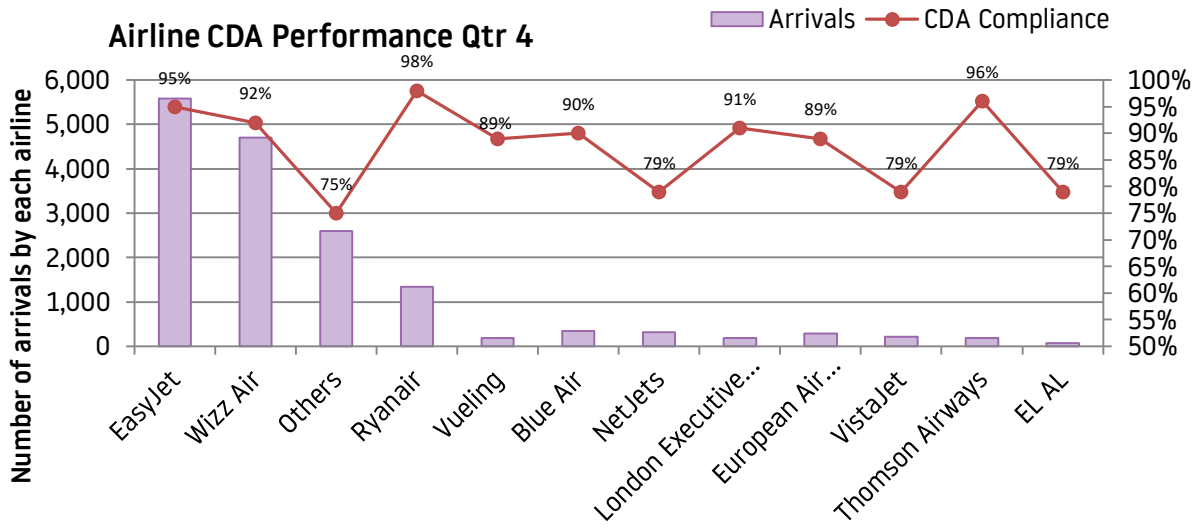
The following table reports the total number of arrivals differentiating between easterly (08), westerly (26) operations and helicopters between 23:00 hrs and 07:00 hrs.

		Arrivals			Total
		08	26	Heli	
Oct 2018	Daytime	1,444	3,741	19	**5,204**
	Night-time	275	709	0	**984**
Nov 2018	Daytime	2,230	2,004	22	**4,256**
	Night-time	295	255	0	**550**
Dec 2018	Daytime	952	3,747	16	**4,431**
	Night-time	140	460	0	**571**
QTR	**Total**	**5,336**	**10,916**	**57**	**16,309**
	Daily Average	*58*	*119*	*<1*	*177*

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			08 Easterly Arrivals			26 Westerly Arrivals		
	% CDA			*% CDA*			*% CDA*		
	Total	*Day*	*Night*	*Total*	*Day*	*Night*	*Total*	*Day*	*Night*
Oct 2018	**91%**	91%	93%	**93%**	93%	95%	**91%**	91%	92%
Nov 2018	**91%**	91%	88%	**93%**	93%	90%	**88%**	89%	86%
Dec 2018	**90%**	91%	90%	**92%**	92%	92%	**90%**	90%	89%
QTR Total	**91%**	91%	90%	**93%**	93%	92%	**90%**	90%	90%

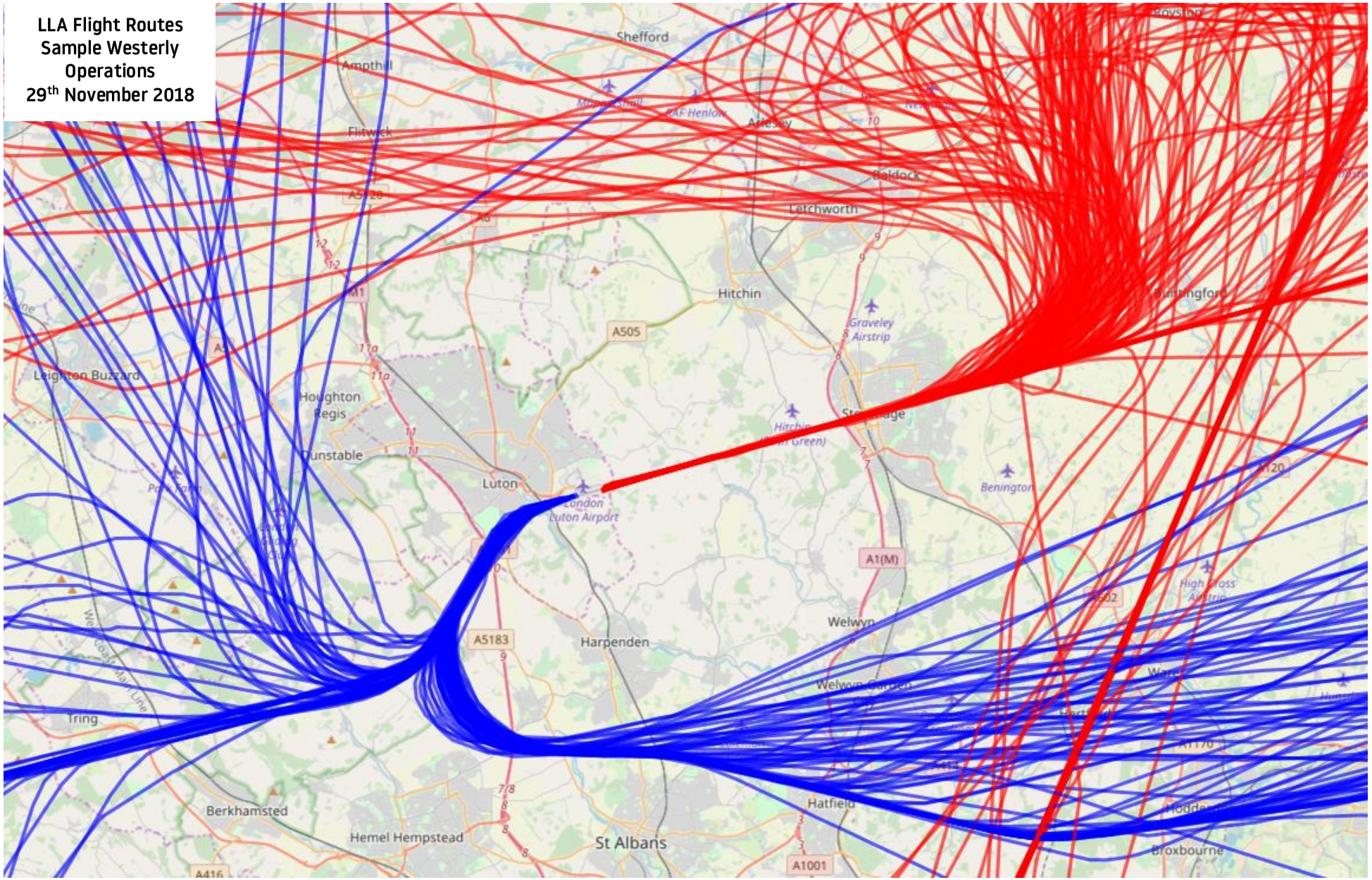
The overall CDA achievement was 91% with several major LLA operators achieving high performance – easyJet, Wizz Air, Ryanair, Thomson Airways and MNG Airlines.



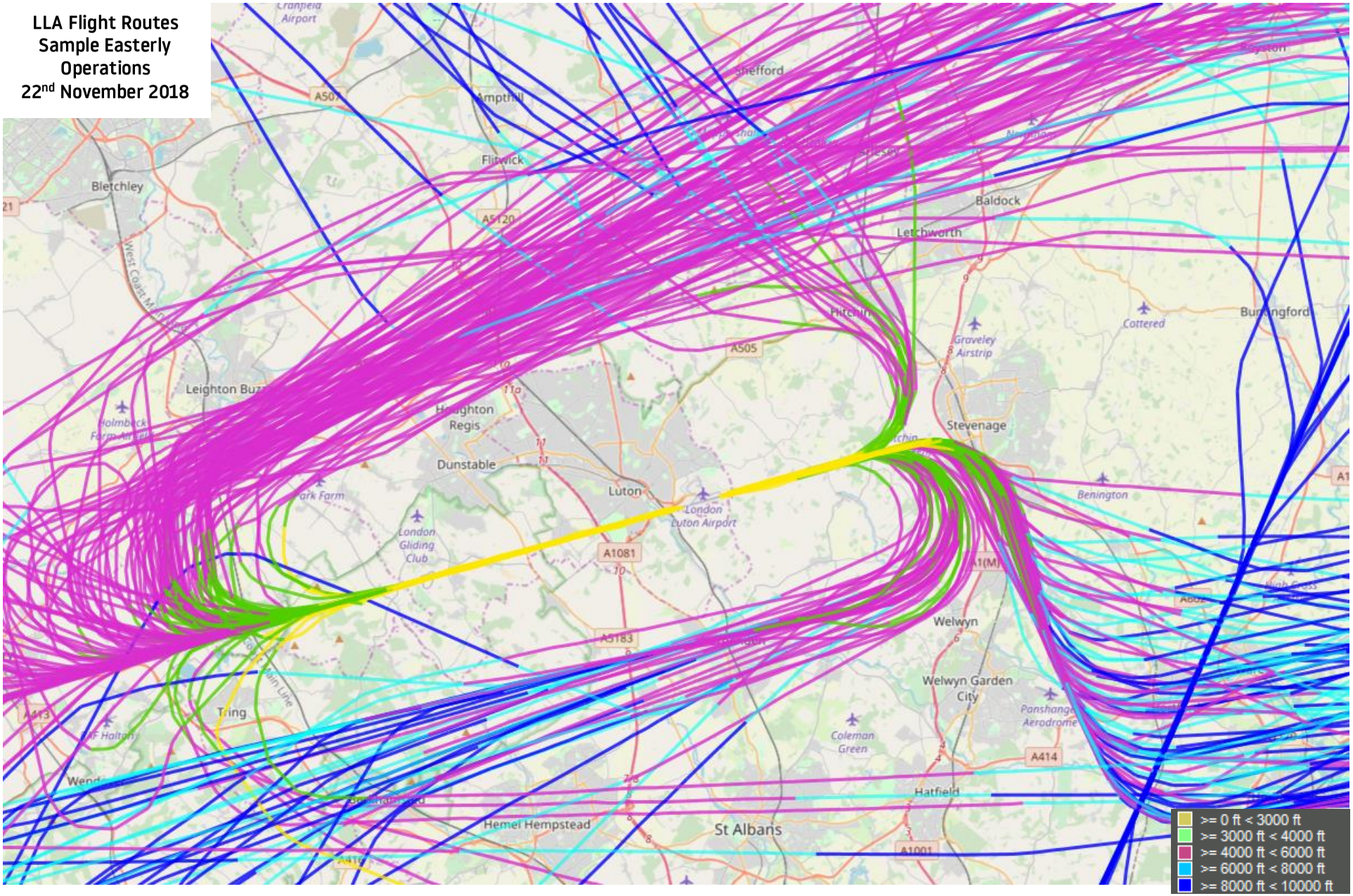
The maps overleaf, produced from the Topsonic Aircraft Noise & Track Monitoring System, identify samples of actual flown aircraft tracks operating from LLA (arrivals and departures during both easterly and westerly operations) for a typical 24-hour period within the third quarter of 2018.

LLA Flight Routes
Sample Easterly Operations
22nd November 2018

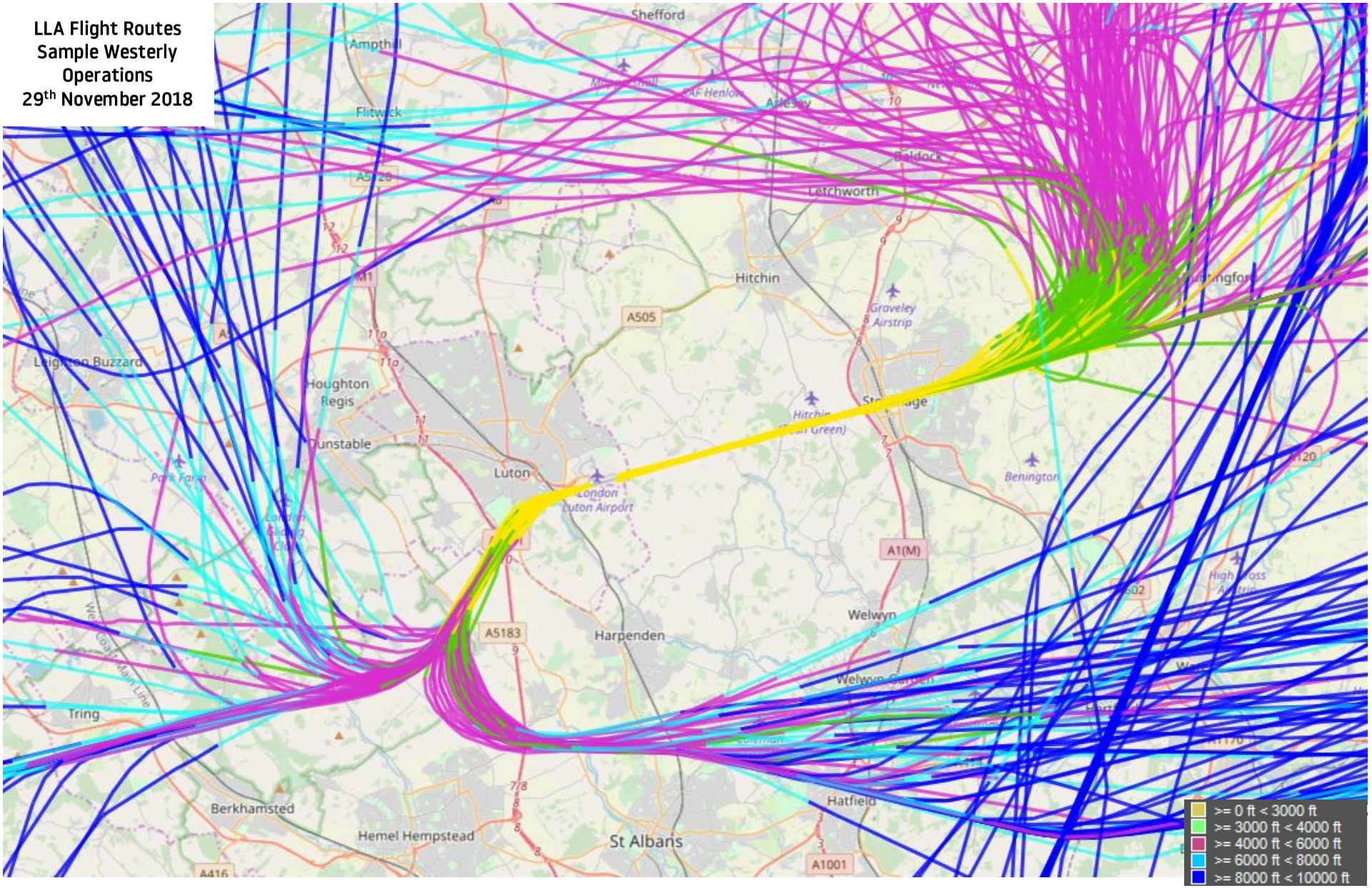
LLA Flight Routes
Sample Westerly
Operations
29th November 2018



LLA Flight Routes
Sample Easterly
Operations
22nd November 2018



LLA Flight Routes
Sample Westerly
Operations
29th November 2018



4 AIRCRAFT NOISE

During the 4th quarter of 2018, the maximum noise levels less than 79 dB(A) was recorded by 99% of correlated departing aircraft in line with 99% for the same quarter last year.

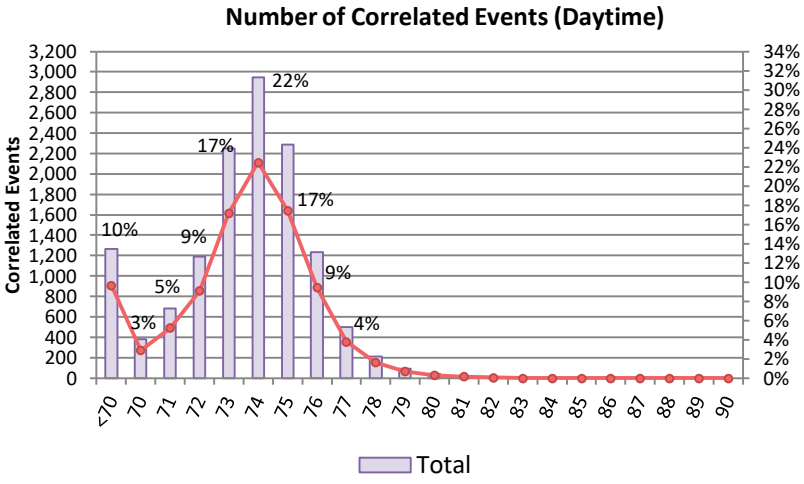
The maximum noise level less than 76 dB(A) was recorded by 93% of correlated departing aircraft slightly increased compared to 84% for the same period last year.

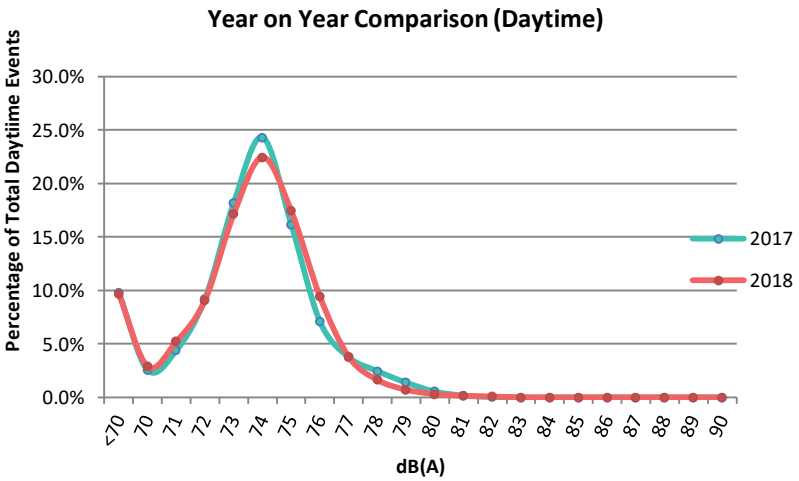
There were no noise violations in this quarter, and no noise violations during the 4th quarter 2017.

4.1 Daytime Noise Levels – October to December 2018

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 82dB(A), between 07:00 hrs and 23:00 hrs, is fined accordingly*)

Number of Correlated Events (Daytime)	db (A)	Oct	Nov	Dec	QTR
	<70	416	434	418	1,268
	70	130	142	107	**379**
	71	241	267	176	**684**
	72	488	396	307	**1,191**
	73	936	642	671	**2,249**
	74	1,107	854	985	**2,946**
	75	789	663	837	**2,289**
	76	424	338	474	**1,236**
	77	206	124	169	**499**
	78	100	50	63	**213**
	79	52	16	25	**93**
	80	23	7	9	**39**
	81	10	5	4	**19**
	82	6	3	1	**10**
	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		**4,928**	**3,941**	**4,246**	**13,115**

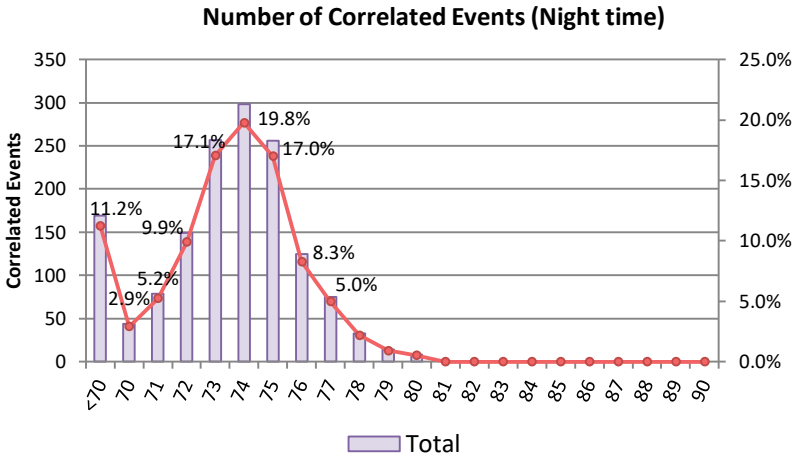


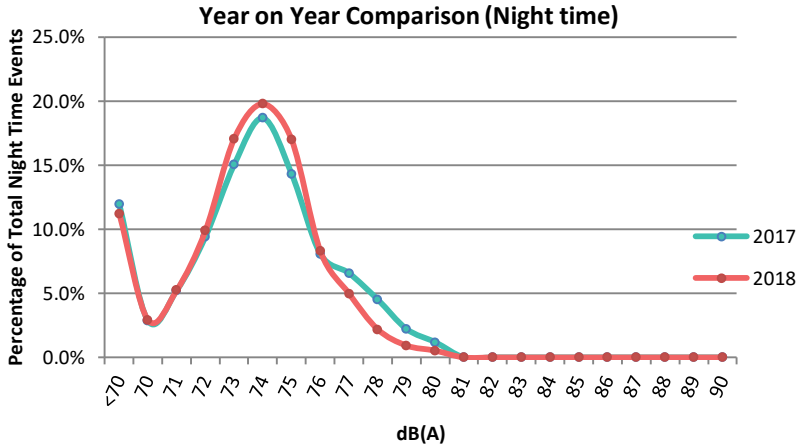


4.2 Night Noise Levels – October to December 2018

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 80dB(A), between 23:00 hrs and 07:00 hrs, is fined accordingly)*

	db (A)	Oct	Nov	Dec	QTR
Number of Correlated Events (Night time)	<70	57	63	49	**169**
	70	13	17	14	**44**
	71	29	27	23	**79**
	72	73	46	30	**149**
	73	117	72	68	**257**
	74	135	72	91	**298**
	75	122	63	71	**256**
	76	49	35	41	**125**
	77	37	14	24	**75**
	78	20	5	8	**33**
	79	11	1	2	**14**
	80	5	3	0	**8**
	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		**668**	**418**	**421**	**1,507**





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 and temperature is either higher than 25°C or below -10°C, results from noise monitors will be invalid and therefore will not been taken into account.

4.3 Noise Violations during Qtr (October to December 2018)

There were no daytime or night time noise violations during the quarter.

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

During the third quarter of 2018 works continued on properties in both Hertfordshire and Bedfordshire. During this period, a further 3 properties were completed as part of the Scheme. The Noise Insulation Sub-Committee also met on 30th November 2018 to discuss the properties to be tested as part of the 2019 allocation for noise insulation.

5 NOISE CONTOURS

5.1 Night Noise Contours – October to December 2018

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 2018 Q3 contours. Terrain data is included and the contours are produced using the INM software (Version 7.0d). The validation is based on measured results in 2017 at the fixed noise monitors and user-defined profiles for the most common aircraft have been used.

5.1.2 Noise Contour Results

The resulting noise contours are shown in the attached Figure A11060-NN18-Q4 and presented 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 2018), and the equivalent quarter during the previous year (October – December 2017).

Contour Value (dB $L_{Aeq,8h}$)	Contour Area (km^2)		
	Oct – Dec 2017	*Jul – Sep 2018*	*Oct – Dec 2018*
48	25.6	39.9	32.0
51	14.2	23.1	18.1
54	7.5	12.7	9.9
57	4.1	6.9	5.6
60	2.1	3.7	2.9
63	1.3	1.9	1.6
66	0.8	1.1	1.0
69	0.5	0.7	0.6
72	0.3	0.5	0.4
W/E Split (%)	95/5	76/24	68/32

Table 1: Area of Night Noise Contours

N.B. The runway split percentage in Table 1 is based only on night time (2300 – 0700) movements, and as a result there might be discrepancies between the figures quoted in a Runway Usage diagram and this Table.

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 2017	Jul – Sept 2018	Oct – Dec 2018
B190	n/a	n/a	26
B733	23	47	n/a
B734	14	59	51
B738	469	717	415
B752	162	274	215
A306	93	134	126
A319	392	1,061	371
A320 (ceo)	1,104	1,984	1,394
A320 (Neo)	41	127	66
A321	42	426	468
A333	30	14	46
CL600	67	n/a	31
CL601	44	n/a	67
C441	34	12	n/a
C500	11	n/a	n/a
C525	40	n/a	14
C56X	50	n/a	37
C680	10	n/a	n/a
C750	n/a	n/a	11
D328	16	n/a	10
E145	42	n/a	43
F100	71	n/a	56
GLF4	45	n/a	25
GLF5	298	14	261
LJ35	20	n/a	27
M3001	n/a	n/a	n/a
Other	53	29	35
Total	**3,184**	**4,898**	**3,811**

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

5.1.4 Noise Contour Comparison

Compared with the same quarter in 2017, there has been a 20% increase in the total number of movements. The aircraft mix has changed slightly, with an increase in the proportion of passenger turbofan operations, which comprised 83% of the total operations in 2018 Q4, compared to 75% in the same quarter in 2017. This is largely due to an increase in movements by the Airbus A320 and A321.

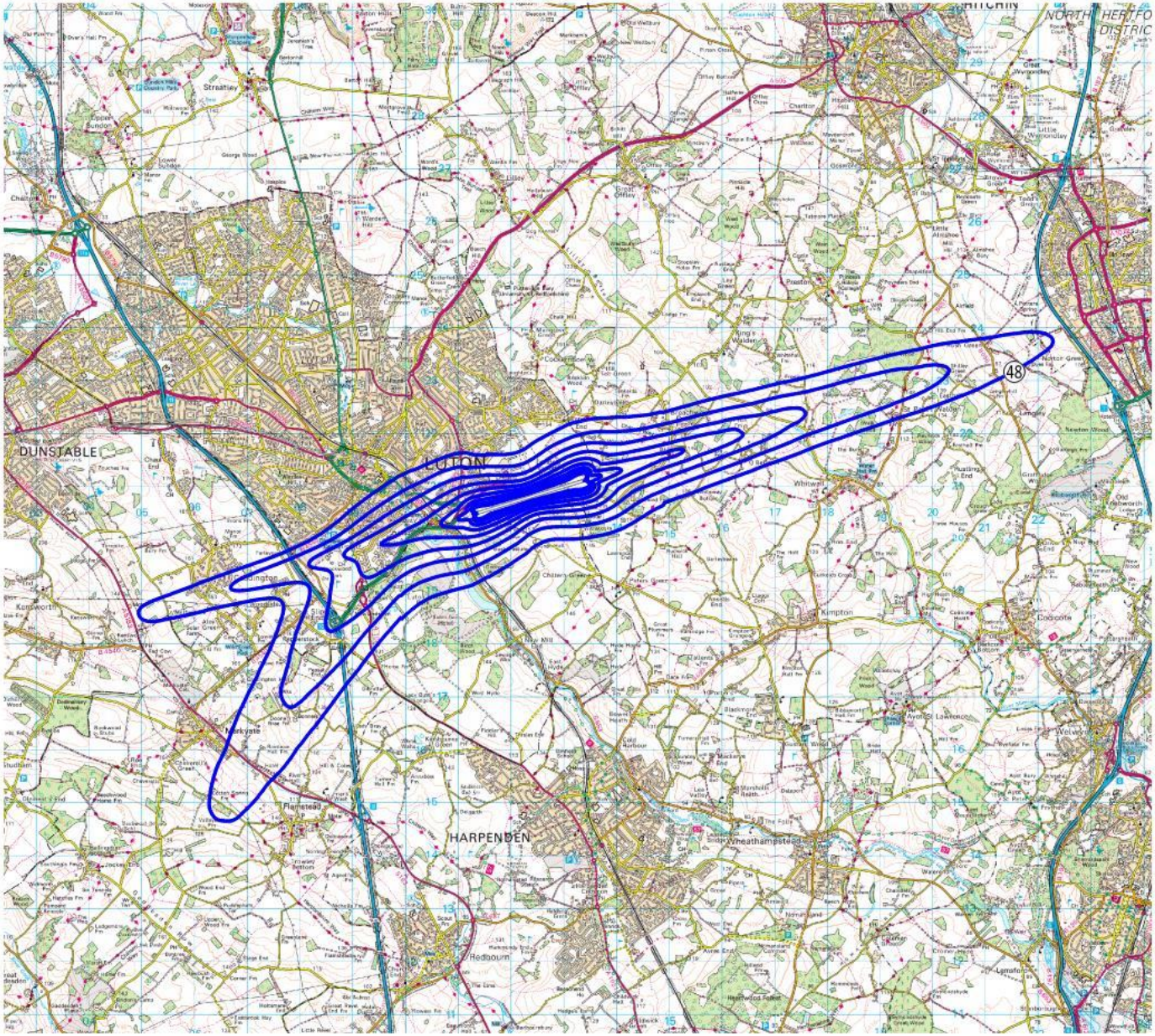
The modal split has changed significantly compared to the same quarter in 2017, with 68% of movements in 2018 Q4 using runway 26, compared to 95% in 2017 Q4.

The area within the 48 dB(A) noise contour has increased by 25% compared to the same quarter last year. This increase is due to the increase in total movements and particularly movements by passenger turbofan aircraft.

The contour shape is also significantly different when compared to the same quarter last year, as in 2018 it extends further to the west past Caddington, but does not extend as far to the south west towards Markyate and Flamstead. The eastern end of the contour towards Stevenage is also slightly longer and wider in 2018. This change in shape is due to the significant change in modal split.

The proportion of modernised aircraft types has remained approximately the same as 2017 Q4, with 5% of operations by the Airbus A320 being by the quieter modernised A320neo variant. The measured results indicate this new aircraft variant is approximately 4 dB quieter on departure at Luton.

The number of movements, and therefore the contour area, has decreased compared to the previous quarter (July - September 2018).



LEGEND:

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

A	03/2019	Updated contours	MP

REVISIONS

Bickerdike Allen Partners
Architecture Acoustics Technology

121 Salusbury Road, London, NW6 6RG
Email: mail@bickerdikeallen.com T: 0207 625 4411
www.bickerdikeallen.com F: 0207 625 0250

London Luton Airport
Regular Contouring

Airborne Aircraft Noise Contours
Oct-Dec 2018 Average Night time

DRAWN: MP CHECKED: DR

DATE: March 2019 SCALE: 1:100000@A4

FIGURE No:
A11060/NN18/Q4/RevA

6 COMPLAINTS

6.1 Total Complaints relating to LLA aircraft operations

	4th QTR 2018	4th QTR 2017
Total No. of Complaints relating to LLA aircraft operations	1,455	2,446
No. of Complainants	147	144
No. of General Complaints	344	218
No. of Specific Complaints	1,111	2,228
Average No. of Complaints per Complainant	9.9	17.0
No. of Aircraft Movements per Complaint	22.4	12.5

During the last quarter a total of 1,455 complaints relating to LLA aircraft operations (on average just under 16 complaints per 24 hours) were received by the Flight Operations Department. This is compared to the 2,446 complaints which were received for the same period last year. It should be noted that 66% were received by 10 individuals.

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

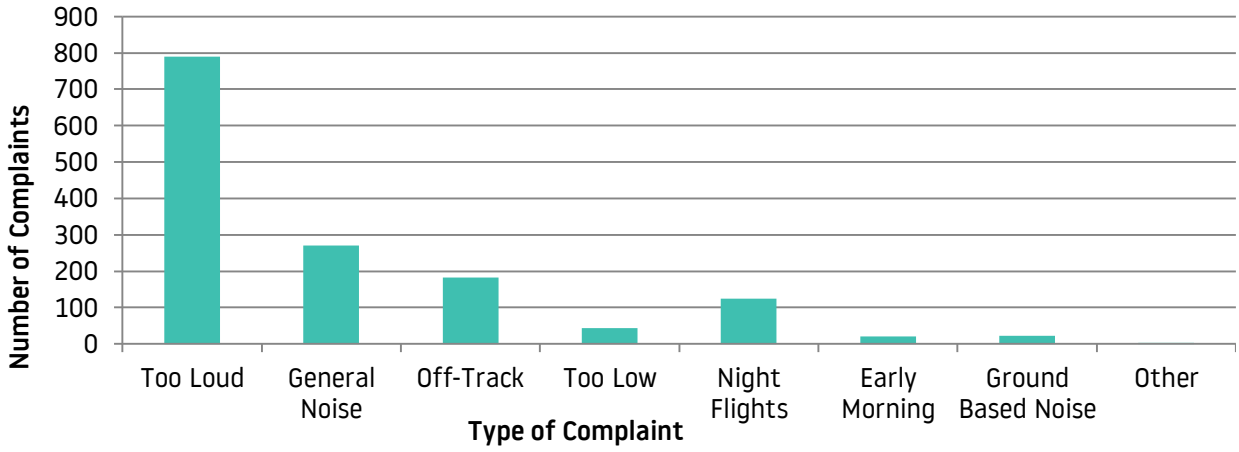
Oct 2018	474 complaints	(319 Specific Complaints, 155 General Complaints)
Nov 2018	372 complaints	(305 Specific Complaints, 67 General Complaints)
Dec 2018	609 complaints	(487 Specific Complaints, 122 General Complaints)

A further 13 complaints not attributable to LLA traffic were received throughout the quarter, compared to 31 complaints for the period October to December last year.

Out of 147 total complainants, there were 74 that contacted the airport only once meaning that 73 complainants generated 1,381 complaints.

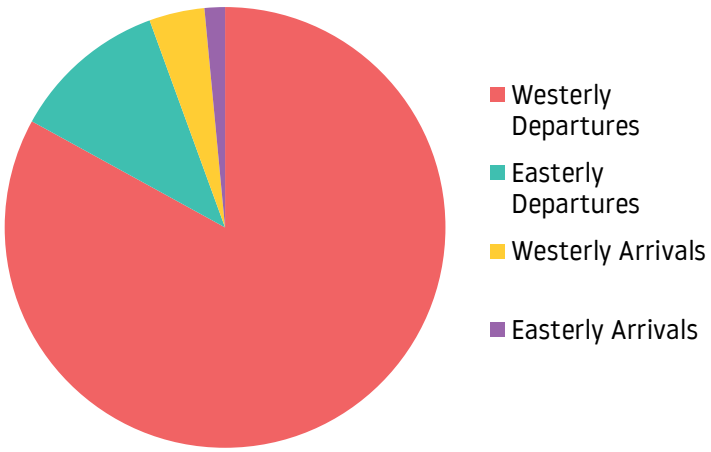
6.2 Type of Complaint

The types of complaint received by the Flight Operations Department from October to December 2018 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 2018.



Within the 775 specific aircraft complaints concerning westerly departures, 758 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 1 complaint was recorded about an aircraft following an off-airways routing.

With regard to the 107 complaints attributed to easterly departures, 16 related to aircraft following the Compton flight route, 76 aircraft on the Match route and 15 aircraft following the Olney route.

In total the Flight Operations Department received 52 specific complaints regarding arrivals. 14 of these complaints were about easterly arrivals and a further 38 concerning westerly arrivals.

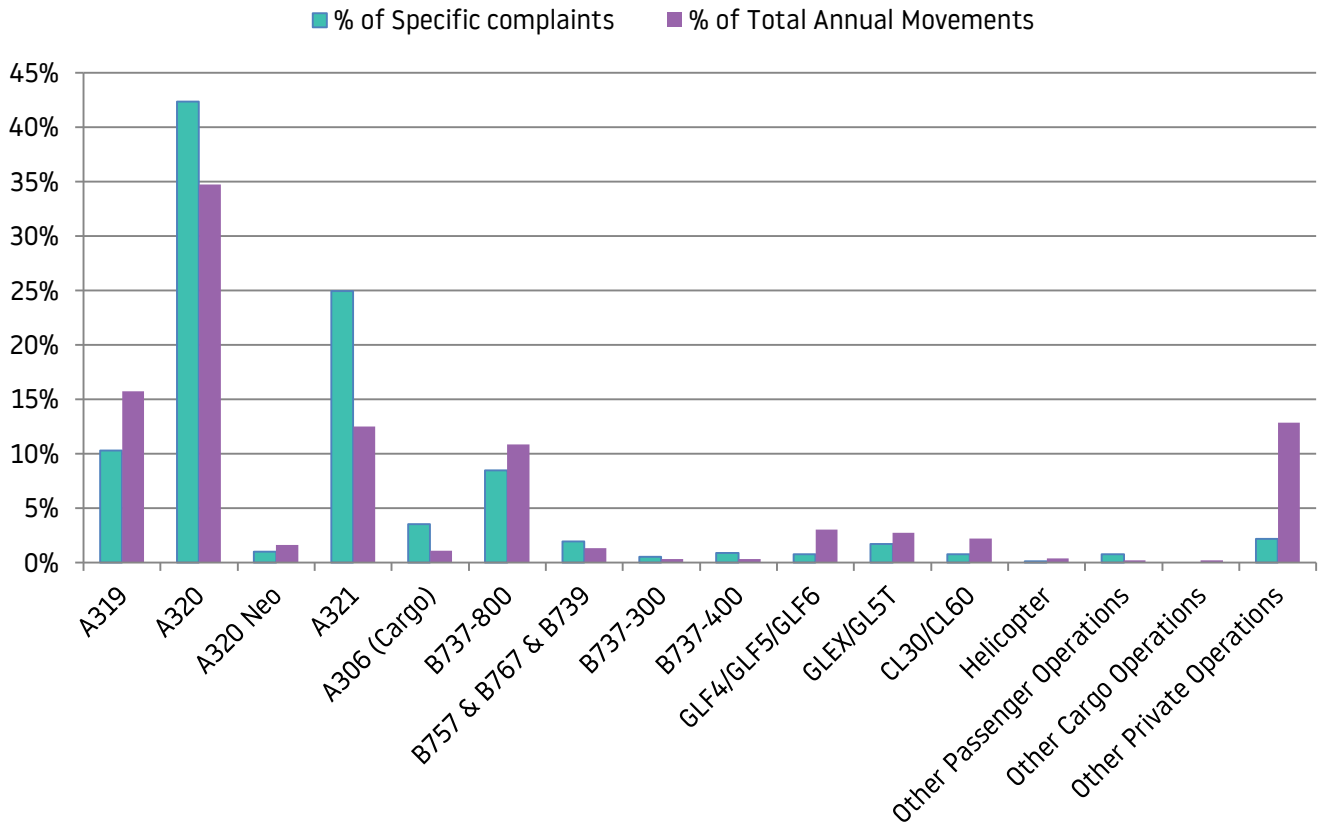
18 Complainants reported noise disturbance at night (compared to **38 Complainants** for the same Quarter last year)

Departing aircraft accounted for 84% of the 95 specific night complaints and 16% involved arrivals. Cargo flights, involving A306 and B752 aircraft were reported in 21% of night complaints, whilst passenger aircraft accounted for 69% of night complaints and executive aircraft were correlated to 10% of night complaints.

125 (9%) Complaints concerning night noise disturbance from LLA operations

6.4 Complaints by aircraft type

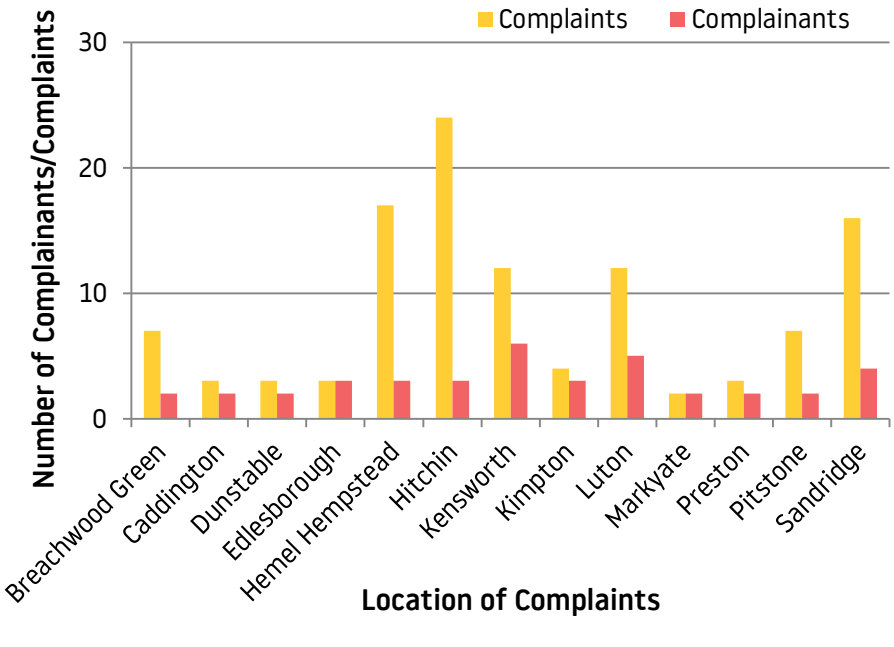
The diagram below shows aircraft types generating specific complaints.

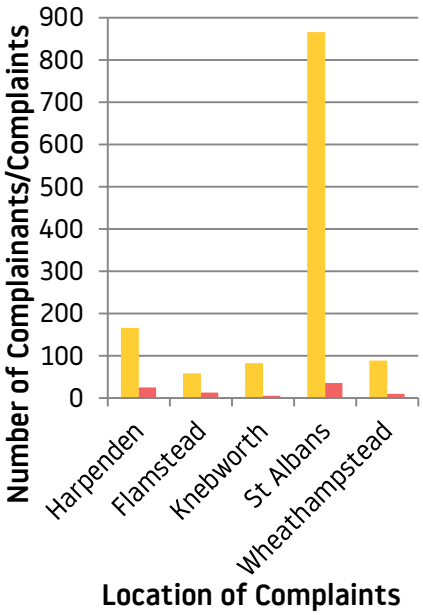


6.5 Origin of Complaints

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 2018.

The communities with one complainant include Aston Clinton, Ayot St Lawrence, Berkhamsted, Bracknell, Chesham, Cheddington, Dagnall, Datchworth, Dunton, Hatfield, Pepperstock, Reigate Heath, Sudbury, Tring and Whitwell.





6.6 Complaints Analysis

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

- The wind direction allowed natural respite for communities on Westerly departure routes, which is likely to have reduced the number of complaints.
- Compared to previous quarters, the percentage of easterly operations has increased, therefore aircraft were overflying areas not overflown on a consistent basis due to natural respite, which increased the numbers of complaints from these areas, particularly Kensworth and Knebworth.
- High numbers of complaints were still recorded from specific locations, for example Harpenden, Flamstead, St Albans and Wheathampstead and Knebworth. Complaints from these areas accounted for 87% of total complaints.
- As winds dictated Westerly operations for 67% of the time, the largest percentage of complaints related to aircraft operations during westerlies, this has also been seen in previous quarters.

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	3%
Email	26%
Travis	71%

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
Navigation House
Airport Way
Luton, Bedfordshire
LU2 9LY

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	19.2%
1	21.5%
2	11.9%
3	10.4%
4	4.4%
5	2.3%
6	2.6%
7	1.0%
8	0.6%
9	2.7%
10	1.9%
11	0.5%
12	2.6%
13	1.7%
14	1.2%
15+	15.7%

7 COMMUNITY RELATIONS

7.1 Community Visits to Airport

Invitations are often extended to local residents and LLACC members to visit 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, the residents group 'Stop low flights from Luton' attended a meeting at the airport on 22nd November 2018.

7.2 Airport Visits to the Community

The Flight Operations team arranged a public surgery in Kensworth on the 15th November and approx. 20 people attended. Many residents had questions and concerns regarding the Airport operations and the common themes from these meetings were:

- Easterly arrivals, in particular during the night time period.
- Delayed landing gear deployment
- Noise monitoring programme

More public surgeries are scheduled; details of which can be found on our website, which is updated accordingly.
(https://www.london-luton.co.uk/corporate/community/noise/noise-surgeries)

Furthermore, on the 2nd October, members of the Flight Operations team met with a resident in Whitwell, to discuss their specific noise concerns. LLA also attended residents group 'St Albans Quieter Skies' annual general meeting on the 23rd November.

Finally, on Monday 22nd October the westerly Match/Detling Airspace Change Focus Group met to discuss NATS simulations and the next steps of the airspace change.