Quarterly Monitoring Report
Qtr 3 2017

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 July to September 2017.

KEY MONITORING INDICATORS – 3rd QUARTER 2017

Parameter		3rd Quarter 2017	3rd Quarter 2016
Total Passenger Number	↑	4,786,536	4,499,622
Total Aircraft Movements	↑	38,291	37,673
Night Movements (23.00 – 07.00)	↑	5,549	4,897
Early Morning Movements (06.00 – 07.00)	↑	1,896	1,671
Aircraft Movement and Quota Count limits (per rolling 12-month period)			
Night Quota Movements (*9,650 limit*)	↑	8,019	7,416
Night Quota Count (*3,500 limit*)	↑	2,788.5	2,639.00
Early Morning Shoulder (*7,000 movements*)	↑	5,860	5,025
24hr CDA (% achievement)	-	92%	92%
Day CDA (% achievement)	↑	93%	92%
Night CDA (% achievement)	↓	91%	92%
Track Violations	↓	16	34
Departure Noise Infringements (Day)	↓	3	11
Departure Noise Infringements (Night)	↑	2	0
Noise Monitor Results			
No. Day (Night) > 80 dB(A)	-	25 (2)	26 (0)
No. Day (Night) > 75 dB(A)	-	2,291 (462)	1,215 (207)
No. Day (Night) > 70 dB(A)	-	12,808 (1,726)	11,869 (1,441)
Night Noise Contour Area (48 dB $L_{Aeq, 8h}$)	↑	38.4km^2	36.2km^2
Noise Complaints	↑	5,785	1,866
Complainants	↑	666	579
Number of New Complainants	↑	411	313
Largest Source of Complaints	-	Deps. West	Deps. West
Origin of Concerns (>5 Complainants)	-	Flamstead Harpenden Hitchin Kensworth Luton Markyate Redbourn Sandridge St Albans Stevenage Wheathampstead	Flamstead Harpenden Hitchin Letchworth Luton Markyate Redbourn Sandridge St Albans Stevenage Wheathampstead
Westerly/Easterly Runway Split (%)	-	83/17	85/15

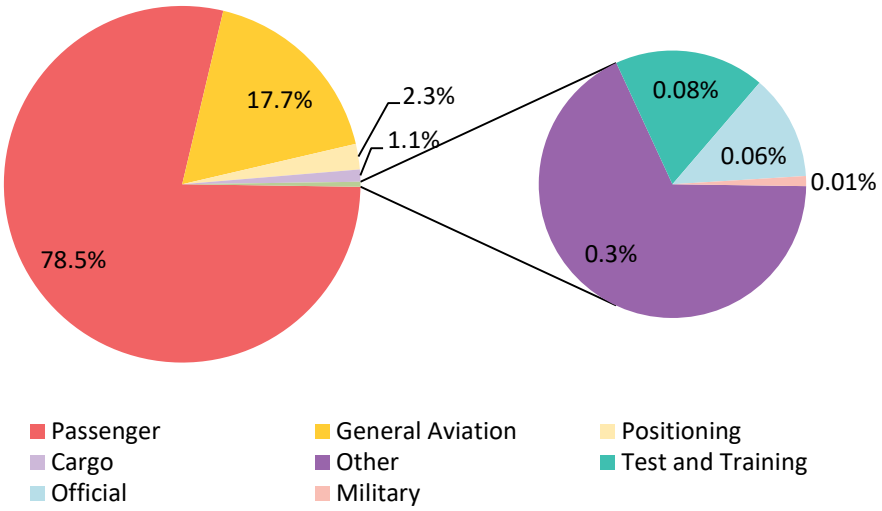
1 AIR TRAFFIC DATA

1.1 Aircraft Movements

There were a total of 38,291 aircraft movements during this quarter (compared with 37,673 for the same period in 2016), an increase of 2%.

This resulted in an average 416 movements per 24 hours (compared to 409 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*						
Jul 2017	137	10,336	326	6	0	14	17	2,300	2	**13,138**
Aug 2017	139	10,351	305	17	4	7	15	1,822	2	**12,662**
Sep 2017	135	9,832	251	18	0	9	27	2,215	4	**12,491**
QTR Total	**411**	**30,519**	**882**	**41**	**4**	**30**	**59**	**6,337**	**8**	**38,291**

1.2 Passenger Statistics

A total of 4,786,536 passengers passed through LLA during the period July to September 2017 (compared with 4,499,622 for the same period last year), 4,597,178 on scheduled flights (96%) and 189,358 on charter flights (4%). This represents an increase in passengers of 6% year on year and equates to an average 52,028 passengers per 24 hours (compared to 48,909 during the third quarter last year).

	Domestic	EU	Non-EU	Total
Jul 2017	109,463	1,077,644	432,377	**1,619,484**
Aug 2017	111,347	1,109,557	461,524	**1,682,428**
Sep 2017	99,954	997,455	387,215	**1,484,624**
QTR Total	**320,764**	**3,184,656**	**1,281,116**	**4,786,536**

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

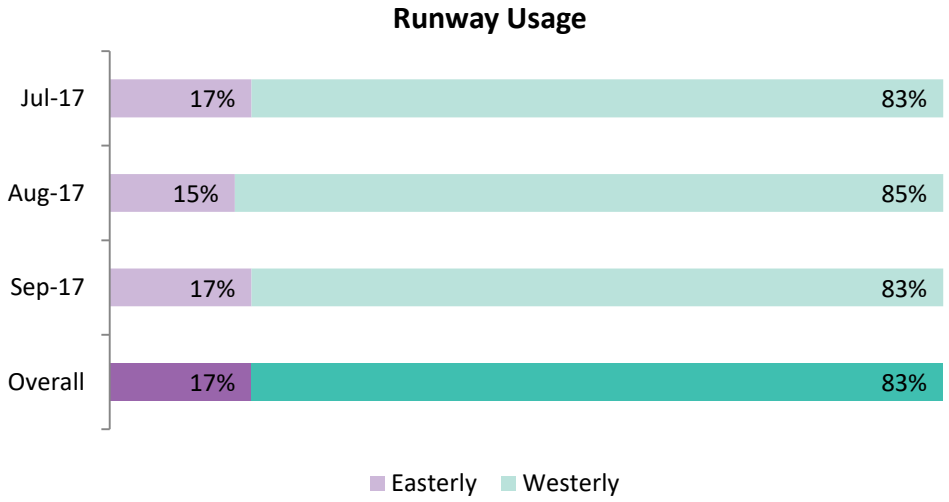
[1] Other relates to flights coming for maintenance and or departing aircraft that has made an unscheduled return to base

[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 (compared to 15% / 85% 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 point 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.

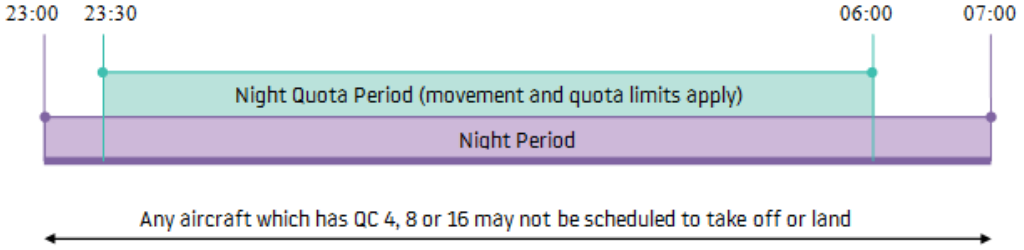
Aircraft are certified by the International Civil Aviation Organisation (ICAO) according to the noise they produce during specific certification tests conducted by the manufacturer. They are classified separately for both take-off and landing. The points are then allocated to different aircraft types 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 July to September 2017, 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*
Oct 2016	746	253.25	525
Nov 2016	388	156.00	296
Dec 2016	420	178.50	309
Jan 2017	318	127.25	331
Feb 2017	363	141.50	301
Mar 2017	388	147.50	393
Apr 2017	638	224.75	563
May 2017	850	285.75	636
Jun 2017	958	318.50	610
Jul 2017	1,063	338.75	622
Aug 2017	989	332.25	637
Sep 2017	898	284.50	637
QTR Total	**2,950**	**955.50**	**1,896**
Total for preceding 12 months	*8,019*	*2,788.5*	*5,860*

1.5 Day/Night Ratio of Movements - Actual

There were 5,549 night operations during the quarter (compared to 4,897 for the third quarter 2016), an average 60 movements per night (compared to 53 last year). Arriving aircraft accounted for 59% 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 86% day / 14% night (compared to 87% / 13% for the same quarter last year).

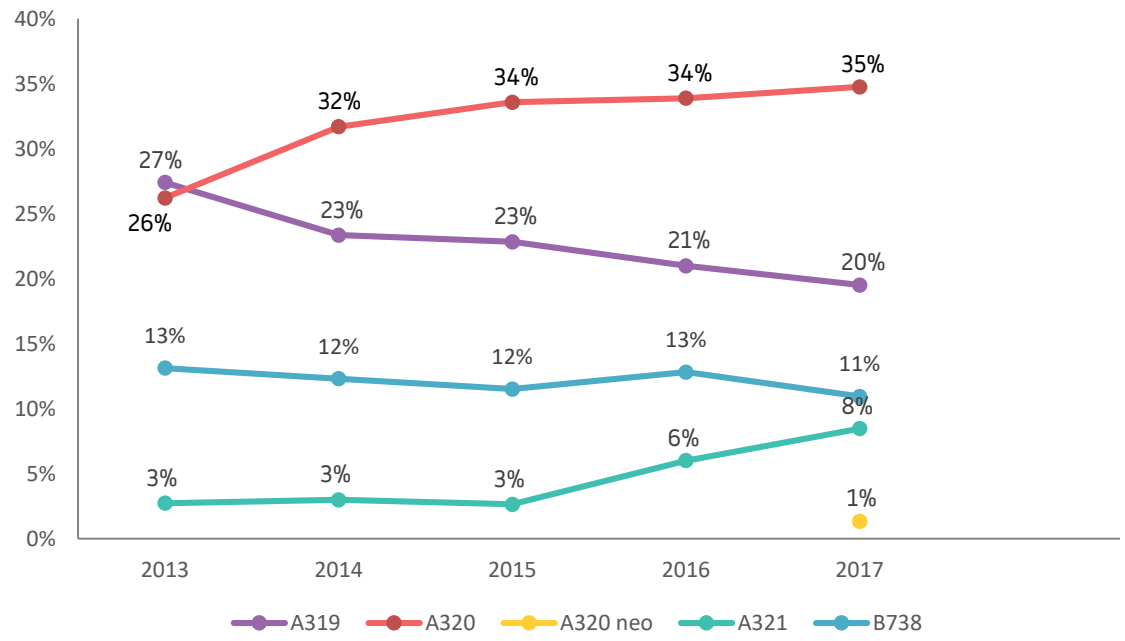
	Day Movements (0700-2300)			Night Movements (2300-0700)					Total
	Day movements			*Night Quota Period (2330-0600)*		*Early Morning Shoulder (0600-0700)*		*Total Night Movements (2300 – 0700)*	
	A	D	Total	A	D	A	D		
Oct 2016	5,224	5,460	10,684	571	175	118	407	1,497	12,181
Nov 2016	4,231	4,305	8,536	238	150	103	193	809	9,345
Dec 2016	4,519	4,648	9,167	277	143	103	206	861	10,028
Jan 2017	4,356	4,380	8,736	201	117	103	228	776	9,512
Feb 2017	4,329	4,388	8,717	241	122	91	210	770	9,487
Mar 2017	4,965	4,999	9,964	253	135	119	274	924	10,888
Apr 2017	4,920	5,004	9,924	468	170	107	456	1,380	11,304
May 2017	5,382	5,637	11,019	646	204	154	482	1,680	12,699
Jun 2017	5,305	5,571	10,876	726	232	120	490	1,785	12,661
Jul 2017	5,426	5,809	11,235	836	227	126	496	1,903	**13,138**
Aug 2017	5,227	5,549	10,776	768	221	118	519	1,886	**12,662**
Sep 2017	5,226	5,505	10,731	710	188	127	510	1,760	**12,491**
QTR Total	**15,879**	**16,863**	**32,742**	**2,314**	**636**	**371**	**1,525**	**5,549**	**38,291**
Total for preceding 12 months	*59,110*	*61,255*	*120,365*	*5,935*	*2,084*	*1,389*	*4,471*	*16,031*	*136,396*

1.6 Day/Night Ratio of Movements – Forecast

	2017/2018 Forecast of Aircraft Movements				
	Day Movements (0700 – 2300hrs)	*Night Quota Period (2330-0600) Limited to 9,650*	*Early Morning Shoulder (0600-0700) Limited to 7,000*	*Total Night Movements (2300-0700hrs)*	*Total*
October 2017	11,276	770	585	1,605	12,881
November 2017	9,084	359	327	823	9,907
December 2017	9,767	399	344	889	10,656
January 2018	8,893	328	349	811	9,704
February 2018	8,857	374	318	804	9,661
March 2018	10,121	401	415	966	11,087
April 2018	10,061	665	596	1,450	11,511
May 2018	11,166	888	672	1,764	12,930
June 2018	11,015	1,001	646	1,875	12,890
July 2018	11,372	1,114	658	2,002	13,374
August 2018	11,351	917	637	1,825	13,176
September 2018	11,566	869	675	1,792	13,358
Total for following 12 months	124,529	8,085	6,222	16,606	*141,135*

1.7 Aircraft Movements by Type

The graph below shows the percentage of aircraft movements for our four 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 07:00 hrs.

		Departures											Total
		MATCH/ DETLING			*COMPTON*		*OLNEY*		*Other**		*Helicopter*		
		08	26 Conv	26 RNAV	08	26	08	26	08	26	08	26	
Jul 2017	Daytime	494	30	2,329	370	1,897	99	506	15	47	0	22	**5,809**
	Night-time	58	5	277	51	278	17	74	1	1	0	3	**765**
Aug 2017	Daytime	400	19	2,337	311	1,808	85	505	13	49	1	21	**5,549**
	Night-time	58	4	268	46	310	13	75	0	2	0	2	**778**
Sep 2017	Daytime	488	10	2,264	347	1,677	111	519	9	53	0	27	**5,505**
	Night-time	57	1	247	54	287	14	78	0	2	0	3	**743**
QTR	**Total**	**1,555**	**69**	**7,722**	**1,179**	**6,257**	**339**	**1,757**	**38**	**154**	**1**	**78**	**19,149**
	Daily Average	*97*	*<1*	*102*	*74*	*82*	*21*	*23*	*2*	*2*	*<1*	*1*	*208*

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 07:00hrs 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 99.55%. 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
Jul 2017	8	£6,250
Aug 2017	4	£3,000
Sep 2017	4	£3,250
QTR	**16**	**£12,500**

	Airline or Aircraft Operator	Aircraft Type/Occurrence
Jul 2017	Air Alsie	AT72/1
	Jota Aviation	RJ85/1
	Privately owned aircraft	C680/1; F900/1; GALX/1; GLF6/2;
	Worldwide Jet Charter	GL5T/1
Aug 2017	Monarch	A320/1
	Privately owned aircraft	C25A/1; GLF5/1
	Turkuaz Airlines	GLF6/1
Sep 2017	Blue Air	B734/1
	Privately owned aircraft	GL5T/1; GLF6/1
	TUI Netherlands	B788/1

3 ARRIVING AIRCRAFT

3.1 Arrivals Route Analysis

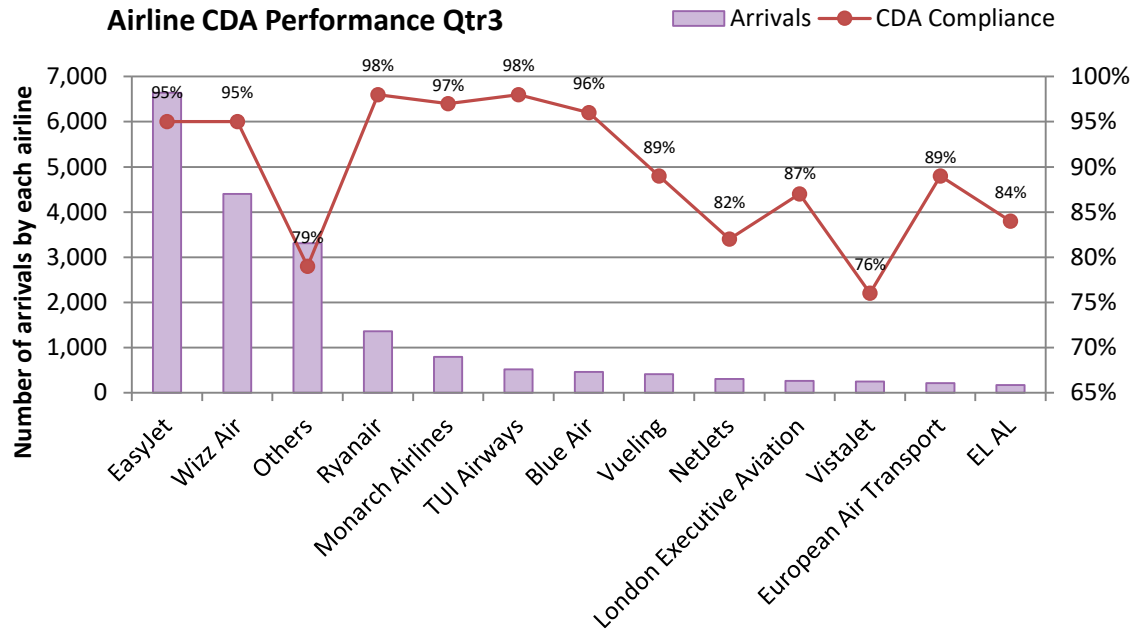
The following table reports the total number of arrivals differentiating between easterly (08), westerly (26) operations and helicopters between 23:00 hrs and 07:00 hrs.

		Arrivals			Total
		08	26	Heli	
Jul 2017	Daytime	895	4,507	24	**5,426**
	Night-time	236	901	1	**1,138**
Aug 2017	Daytime	756	4,449	22	**5,227**
	Night-time	225	882	1	**1,108**
Sep 2017	Daytime	905	4,293	28	**5,226**
	Night-time	187	828	2	**1,017**
QTR	**Total**	**3,204**	**15,860**	**78**	**19,142**
	Daily Average	*200*	*209*	*<1*	*208*

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.

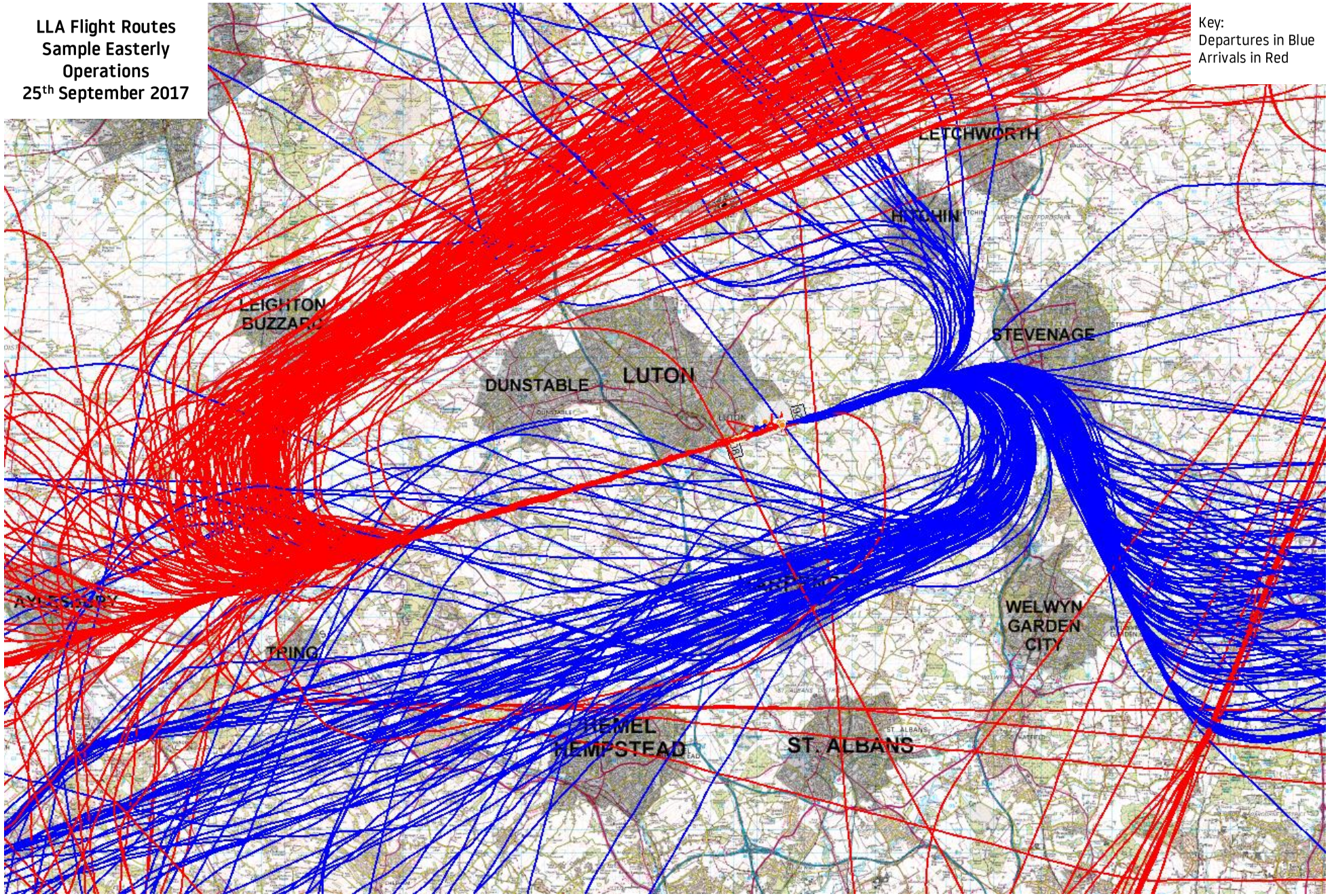
	All Arrivals			08 Easterly Arrivals			26 Westerly Arrivals		
	% CDA			*% CDA*			*% CDA*		
	Total	*Day*	*Night*	*Total*	*Day*	*Night*	*Total*	*Day*	*Night*
Jul 2017	**92%**	93%	89%	**95%**	97%	89%	**91%**	92%	89%
Aug 2017	**93%**	93%	93%	**95%**	96%	91%	**93%**	92%	93%
Sep 2017	**92%**	92%	90%	**95%**	96%	93%	**91%**	91%	90%
QTR Total	**92%**	93%	91%	**95%**	96%	91%	**92%**	92%	91%

The overall CDA achievement was 92% with several major LLA operators achieving high performance – easyJet, Wizz Air, Ryanair, Monarch, TUI Airways and Blue Air.

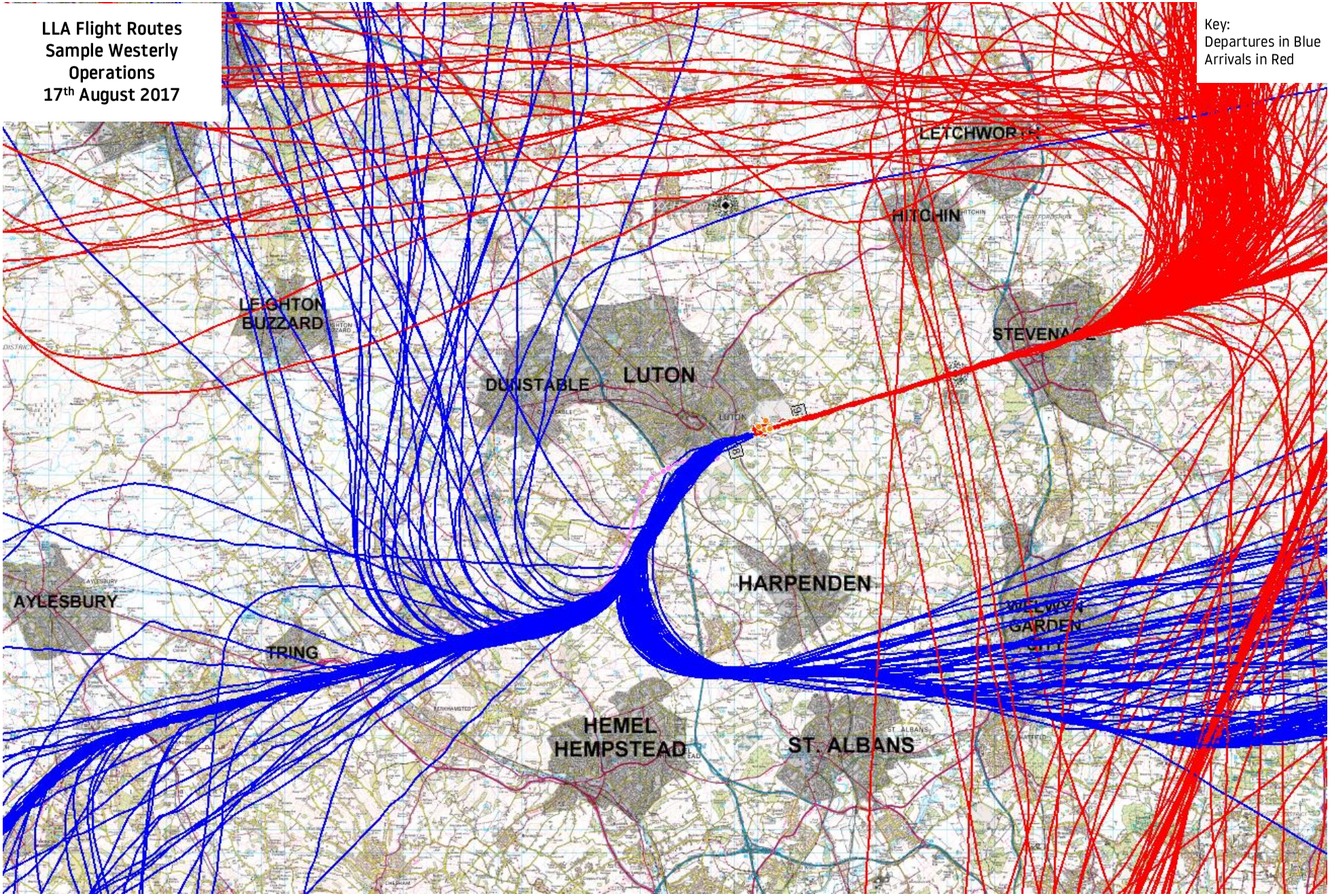


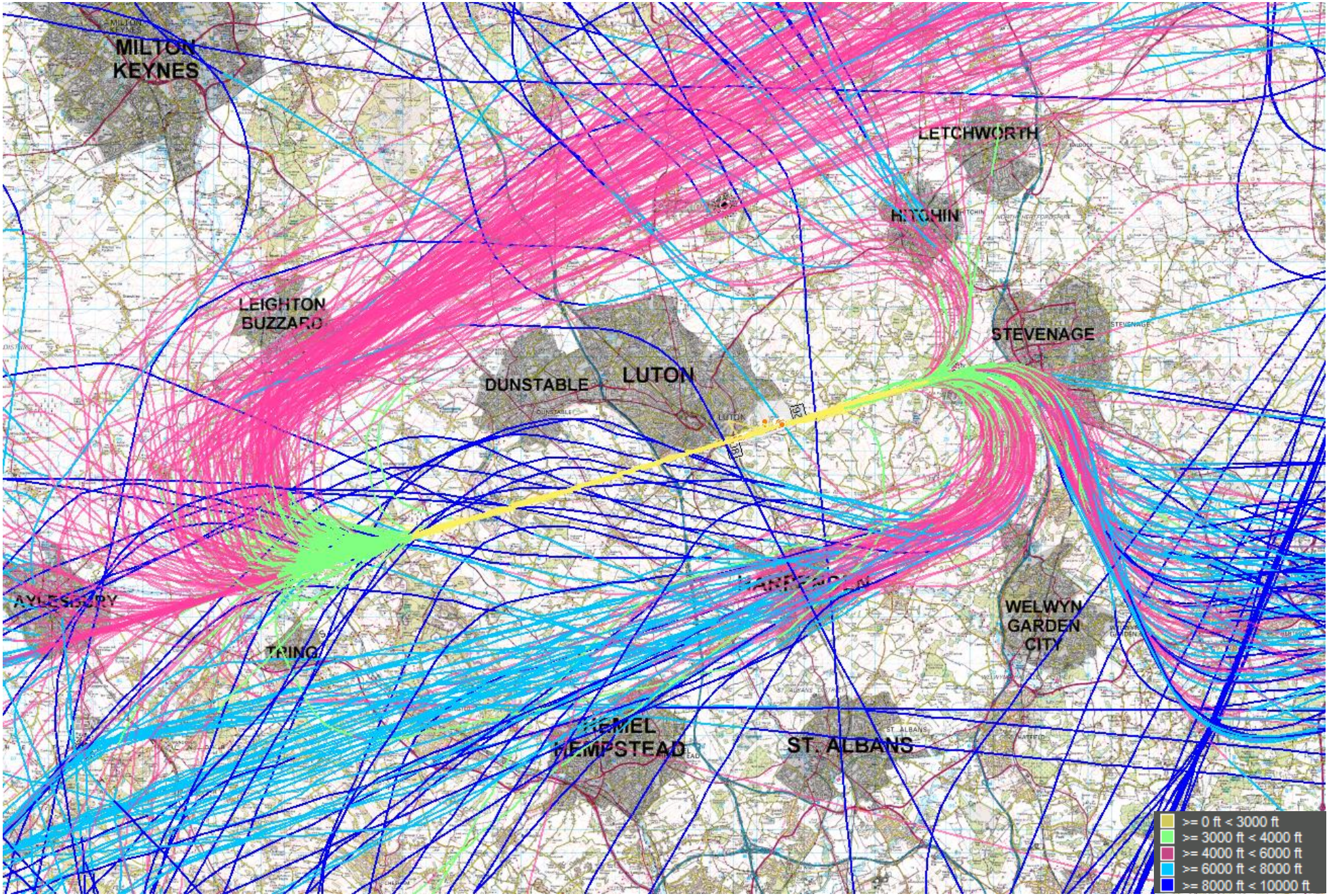
The maps overleaf, extracted from the Topsonic Aircraft Noise & Track Monitoring System, identify samples of actual flown aircraft tracks operating from LLA (arrivals and departures during both easterly and westerly operations) for a typical 24 hour period within the third quarter of 2017.

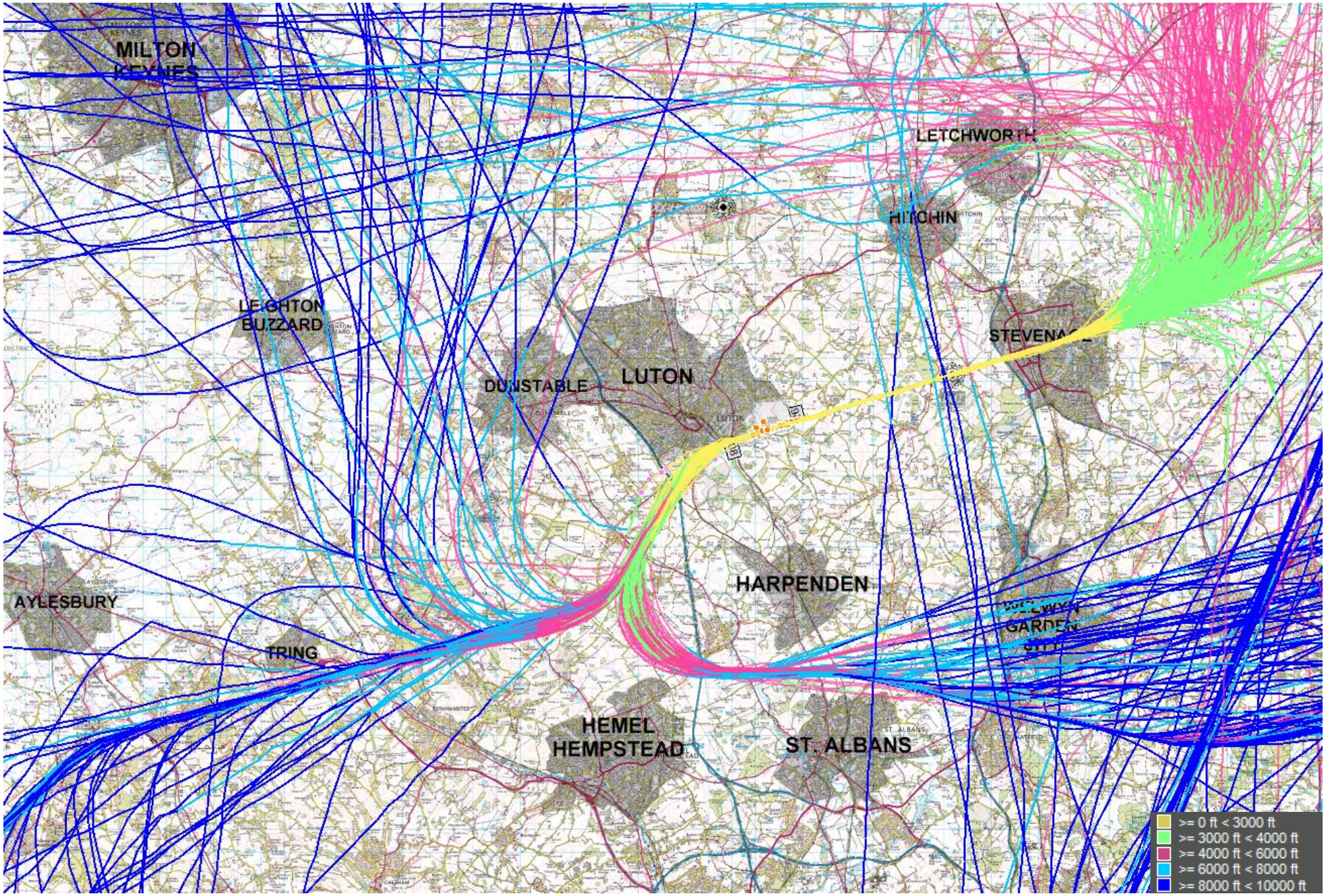
LLA Flight Routes
Sample Easterly
Operations
25th September 2017



LLA Flight Routes
Sample Westerly
Operations
17th August 2017







4 AIRCRAFT NOISE

During the 3rd quarter of 2017, the maximum noise levels less than 79 dB(A) was recorded by 98% of correlated departing aircraft compared to 99% for the same quarter last year.

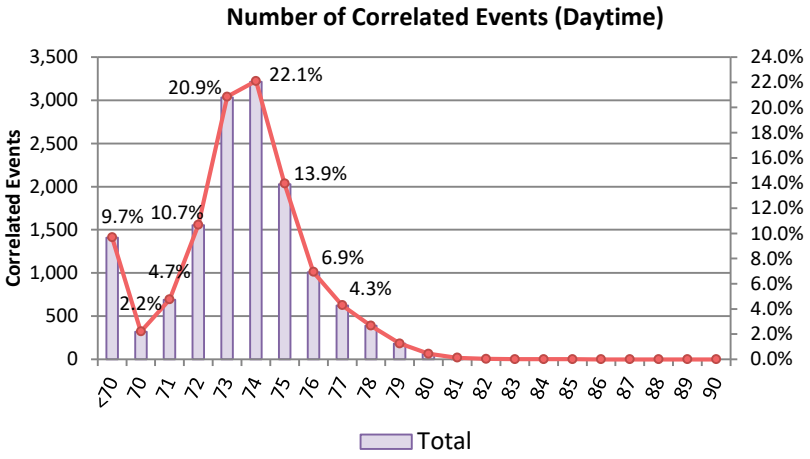
The maximum noise level less than 76 dB(A) recorded by 83% of correlated departing aircraft decreased compared to 91% for the same period last year.

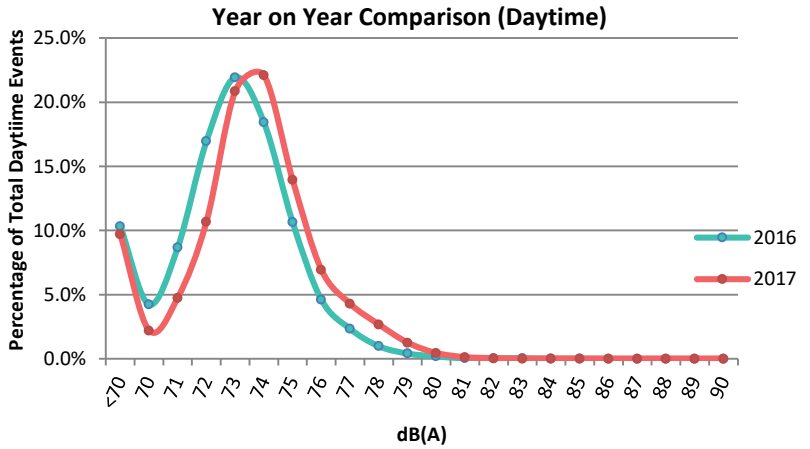
There were three daytime noise violations and two night time noise violations in this quarter, compared to eleven daytime noise violations and no night time noise violation during the 3rd quarter 2016.

4.1 Daytime Noise Levels – July to September 2017

The following table identifies daytime noise levels correlated to departing aircraft at the fixed noise monitoring terminals; these are rounded to the nearest decibel. In the case of westerly departures, where the noise is monitored from two noise monitor terminals, the table will show the highest value. (*Any aircraft exceeding the Daytime Noise Violation Limit of 82dB(A), between 07:00 hrs and 23:00 hrs, is fined accordingly*).

	db (A)	Jul	Aug	Sep	QTR
Number of Correlated Events (Daytime)	<70	474	443	493	**1,410**
	70	102	111	107	**320**
	71	207	271	212	**690**
	72	547	579	428	**1,554**
	73	1,055	1,117	860	**3,032**
	74	991	1,102	1,120	**3,213**
	75	602	639	787	**2,028**
	76	327	297	385	**1,009**
	77	190	211	222	**623**
	78	150	108	130	**388**
	79	49	52	81	**182**
	80	22	14	28	**64**
	81	4	2	11	**17**
	82	4	0	1	**5**
	83	1	0	0	**1**
	84	1	0	0	**1**
	85	0	1	0	**1**
	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		**4,726**	**4,947**	**4,865**	**14,538**

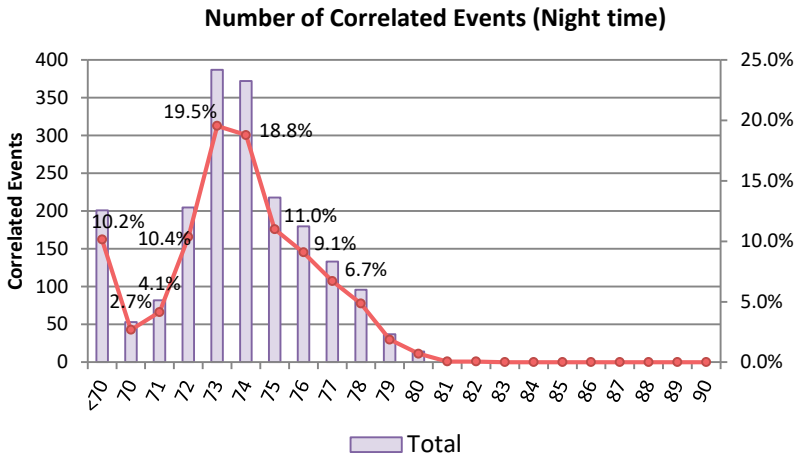


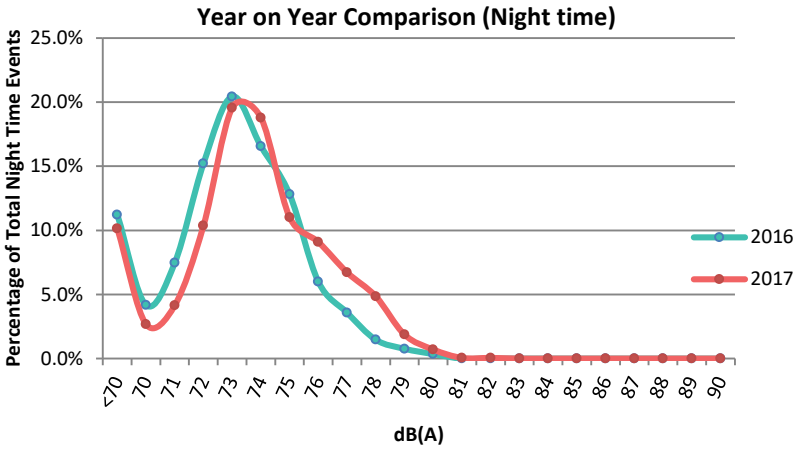


4.2 Night Noise Levels – July to September 2017

The following table identifies the night noise levels correlated to departing aircraft at the fixed noise monitor terminals; these are rounded to the nearest decibel. In the case of westerly departures, where the noise is monitored from two noise monitor terminals, the table will show the highest value. *(Any aircraft exceeding the Night Noise Violation Limit of 80dB(A), between 23:00 hrs and 07:00 hrs, is fined accordingly).*

	db (A)	Jul	Aug	Sep	QTR
Number of Correlated Events (Night time)	<70	60	71	70	**201**
	70	21	16	16	**53**
	71	21	29	32	**82**
	72	77	72	56	**205**
	73	121	168	98	**387**
	74	112	127	133	**372**
	75	65	71	82	**218**
	76	59	52	69	**180**
	77	44	50	39	**133**
	78	33	27	36	**96**
	79	12	10	15	**37**
	80	2	2	10	**14**
	81	0	1	0	**1**
	82	0	1	0	**1**
	83	0	0	0	**0**
	84	0	0	0	**0**
	85	0	0	0	**0**
	86	0	0	0	**0**
	87	0	0	0	**0**
	88	0	0	0	**0**
	89	0	0	0	**0**
	90	0	0	0	**0**
Total		**627**	**697**	**656**	**1,980**





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 Qtr3 (July to September 2017)

There were three daytime noise violations and two night time noise violations during the quarter.

	Date/Time (Local)	Aircraft Type	Noise Level
Daytime	02/07/2017 13:51 hrs	B732 (Executive Jet)	83 dB(A)
	25/07/2017 14:33 hrs	B732 (Executive Jet)	84 dB(A)
	05/08/2017 11:27 hrs	B732 (Executive Jet)	85 dB(A)
Night-time	01/08/2017 00:48 hrs	AN12 (Executive Jet)	82 dB(A)
	21/08/2017 06:06 hrs	A320 (Wizz Air)	81 dB(A)
Total Penalties Collected			**£500**

4.4 Noise Insulation Scheme update

In 2016 we began our Noise Insulation Scheme, which 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.

So far during 2017, 78 properties have been contacted, out of these properties, 38 properties have accepted the insulation. Included within the 38 properties accepting the insulations were 30 flats, owned by Luton Borough Council.

5 NOISE CONTOURS

5.1 Night Noise Contours – July to September 2017

5.1.1 Contour Production

Aircraft movement data for use in the contour production has been supplied by LLA. The contour production methodology is the same as that used for the 2017 Q2 contours. It includes terrain data, and was produced using INM software (Version 7.0d). The validation is based on measured results in 2016 at the fixed noise monitors, and user-defined profiles for the most common aircraft have been used, as for the 2016 contours.

5.1.2 Noise Contour Results

The resulting noise contours are shown in the attached Figure A11060-NN17-Q3 and presented at values from 48 to 72 dB $L_{Aeq,8h}$. The area of each noise contour is given in Table 1 below and compared with the values for the previous quarter (April – June 2017) and the equivalent quarter during the previous year (July – September 2016).

Contour Value (dB $L_{Aeq,8h}$)	Contour Area (km^2)		
	Jul – Sep 2016	*Apr - Jun 2017*	*Jul – Sep 2017*
48	36.2	35.1	38.4
51	20.8	19.9	22.1
54	11.3	10.5	12.0
57	5.9	5.7	6.3
60	3.1	3.0	3.4
63	1.7	1.6	1.8
66	1.0	1.0	1.1
69	0.6	0.6	0.7
72	0.4	0.4	0.4
W/E Split (%)	85/15	68/32	82/18

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 LLA 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	Jul – Sep 2016	Apr – Jun 2017	Jul – Sep 2017
B733	44	30	47
B734	26	n/a	n/a
B738	837	704	817
B752	180	166	215
A306	122	146	133
A319	992	907	1,075
A320 (ceo)	1,651	1,688	2,054
A320 (neo)	n/a	17	122
A321	157	127	139
A333	n/a	n/a	20
BAE146	17	n/a	n/a
CL600	59	70	72
CL601	49	37	46
C441	48	71	75
C500	n/a	n/a	13
C510	20	22	n/a
C525	31	51	46
C56X	55	52	51
C680	11	13	n/a
D328	131	109	102
E145	53	66	57
F100	46	81	45
GLF4	41	50	47
GLF5	234	299	248
LJ35	20	34	24
MU3001 (BE40)	n/a	n/a	14
Other	53	81	75
Total	**4,877**	**4,821**	**5,537**

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

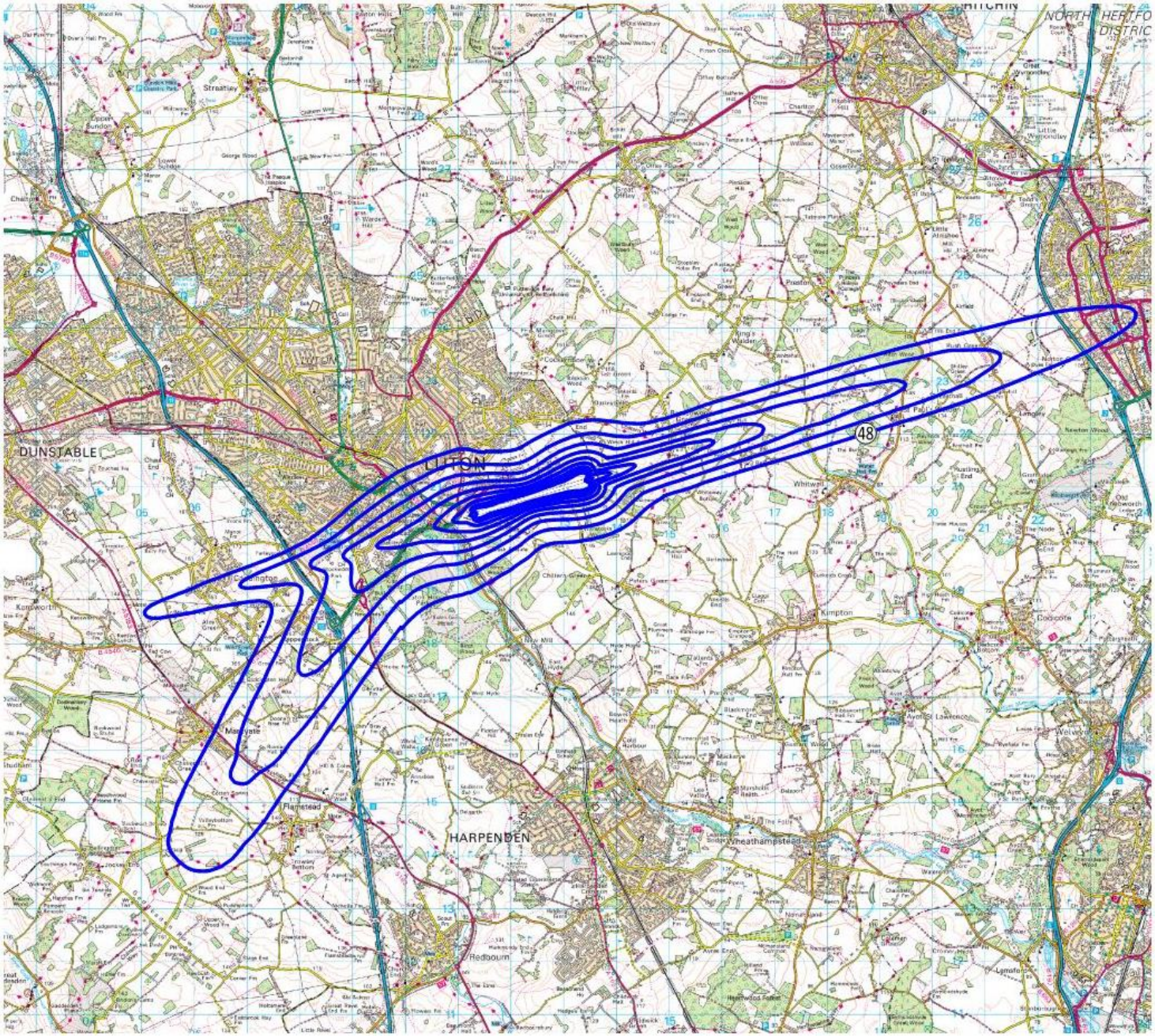
5.1.4 Noise Contour Comparison

Compared with the same quarter in 2016, there has been an increase of 14% in the total number of movements. The aircraft mix has remained similar, with turbofan operations comprising 84% of the total operations in 2017 Q3, compared to 83% the same quarter in 2016. The majority of the increase in movements is due to an increase in operations by the Airbus A320. The number of movements by other aircraft types in 2017 Q3 are largely similar to 2016 Q3.

The modal split has changed slightly compared to the same quarter in 2016, with 82% of movements in 2017 Q3 using runway 26, compared to 85% in 2016 Q3.

The area within the 48 dB(A) noise contour has increased by 6% compared to the same quarter last year. This increase is primarily due to the increase in overall movements, in particular the A320s. Increases of a similar magnitude are evident across the other contour bands.

The number of movements, and therefore the contour area, has increased compared to the previous quarter (April - June 2017).



LEGEND:

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

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
Jul-Sep 2017 Average Night time

DRAWN: DCH CHECKED: DR

DATE: October 2017 SCALE: 1:100000@A4

FIGURE No:

A11060/NN17/Q3

6 COMPLAINTS

6.1 Total Complaints relating to LLA aircraft operations

	3rd QTR 2017	3rd QTR 2016
Total No. of Complaints relating to LLA aircraft operations	5,785	2,139
No. of Complainants	666	579
No. of General Complaints	1,643	684
No. of Specific Complaints	4,142	1455
Average No. of Complaints per Complainant	8.7	3.7
No. of Aircraft Movements per Complaint	7	18

During the last quarter a total of 5,785 complaints relating to LLA aircraft operations (on average just under 63 complaints per 24 hours) were received by the Flight Operations Department. This is compared to the 2,139 complaints which were received for the same period last year. It should be noted that 61% of complaints were received by 10 individuals.

The monthly breakdown of total complaints and events eliciting a complaint relating to LLA aircraft operations is as follows:

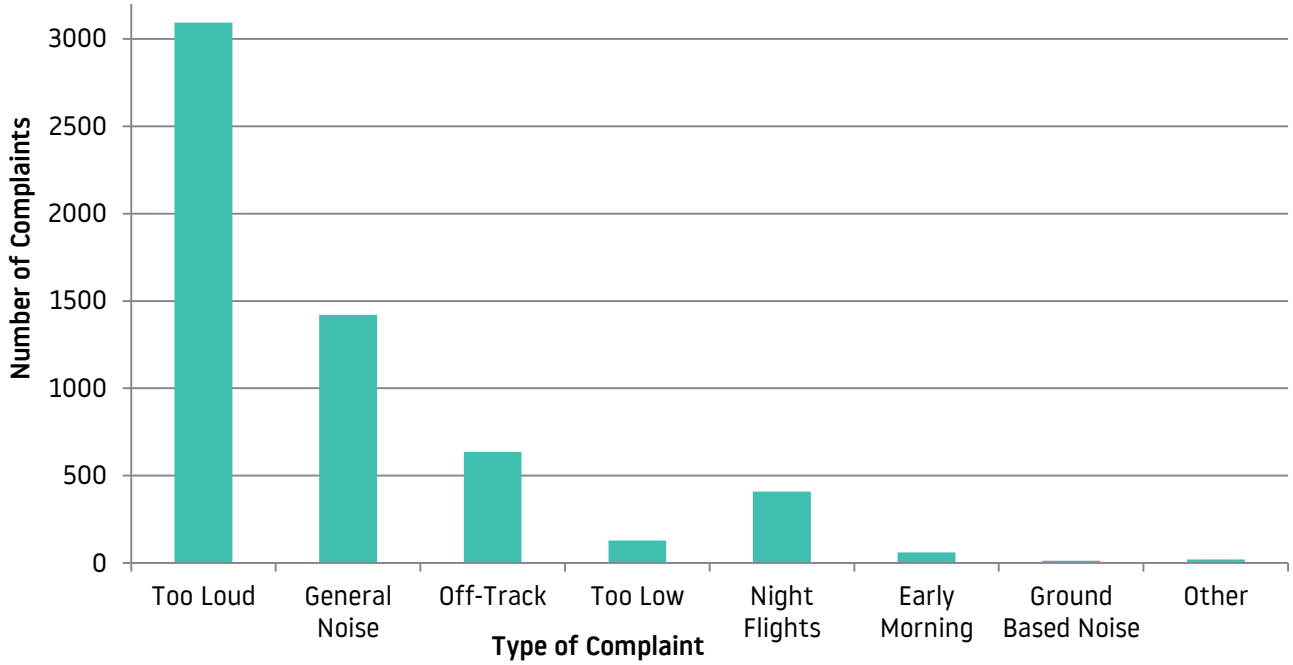
Jul 2017	2434 complaints	(1845 Specific Complaints, 589 General Complaints)
Aug 2017	2020 complaints	(1270 Specific Complaints, 750 General Complaints)
Sept 2017	1331 complaints	(1027 Specific Complaints, 304 General Complaints)

A further 201 complaints not attributable to LLA traffic were received throughout the quarter, compared to 17 complaints for the period July to September last year.

Out of 666 total complainants, there were 419 that contacted the airport only once meaning that 247 complainants generated 5,366 complaints.

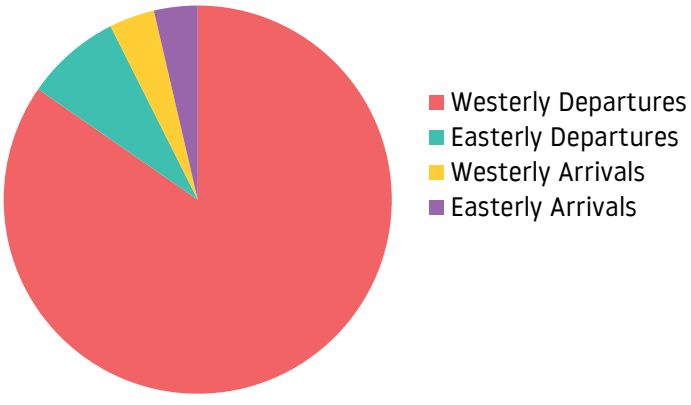
6.2 Type of Complaint

The types of complaint received by the Flight Operations Department from July to September 2017 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 July to September 2017.



Within the 3,377 specific aircraft complaints concerning westerly departures, 3,324 complaints involved aircraft on the Match/Detling heading, 31 related to aircraft following Compton flight route, 8 related to aircraft using the Olney route and 14 complaints were recorded about aircraft following an off-airways routing.

With regard to the 317 complaints attributed to easterly departures, 289 related to aircraft following the Compton flight route, 13 aircraft on the Match route, 7 aircraft following the Olney heading and a further 8 aircraft using an off-airways routing.

In total the Flight Operations Department received a total of 296 specific complaints regarding arrivals. 145 of these complaints were about easterly arrivals and a further 151 concerning westerly arrivals.

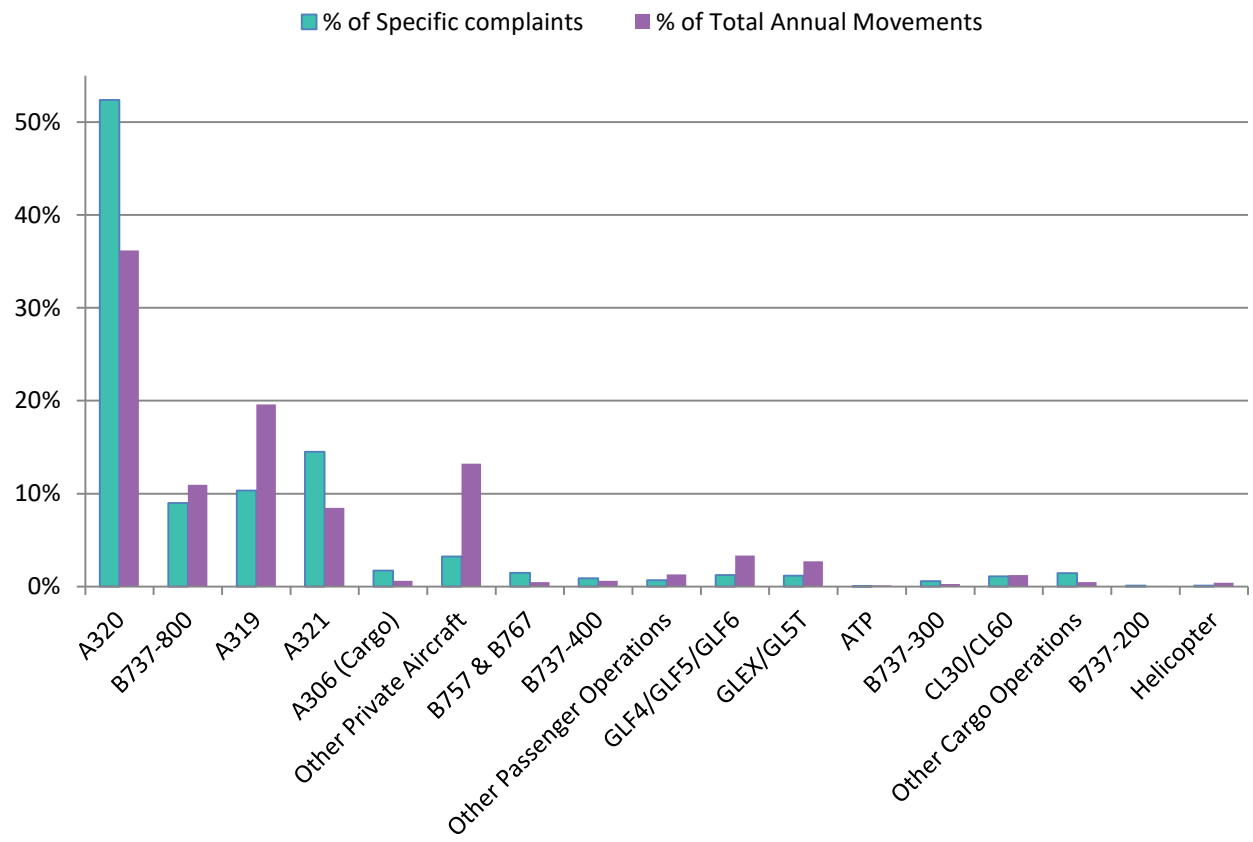
115 Complainants reported noise disturbance at night (compared to **40 Complainants** for the same Quarter last year)

Departing aircraft accounted for 75% of the 278 specific night complaints and 25% involved arrivals. Cargo flights, involving A306 and B752 aircraft were reported in 18% of night complaints, whilst passenger aircraft accounted for 78% of night complaints and executive aircraft were correlated to 4% of night complaints.

409 (7%) Complaints concerning night noise disturbance from LLA operations

6.4 Complaints by aircraft type

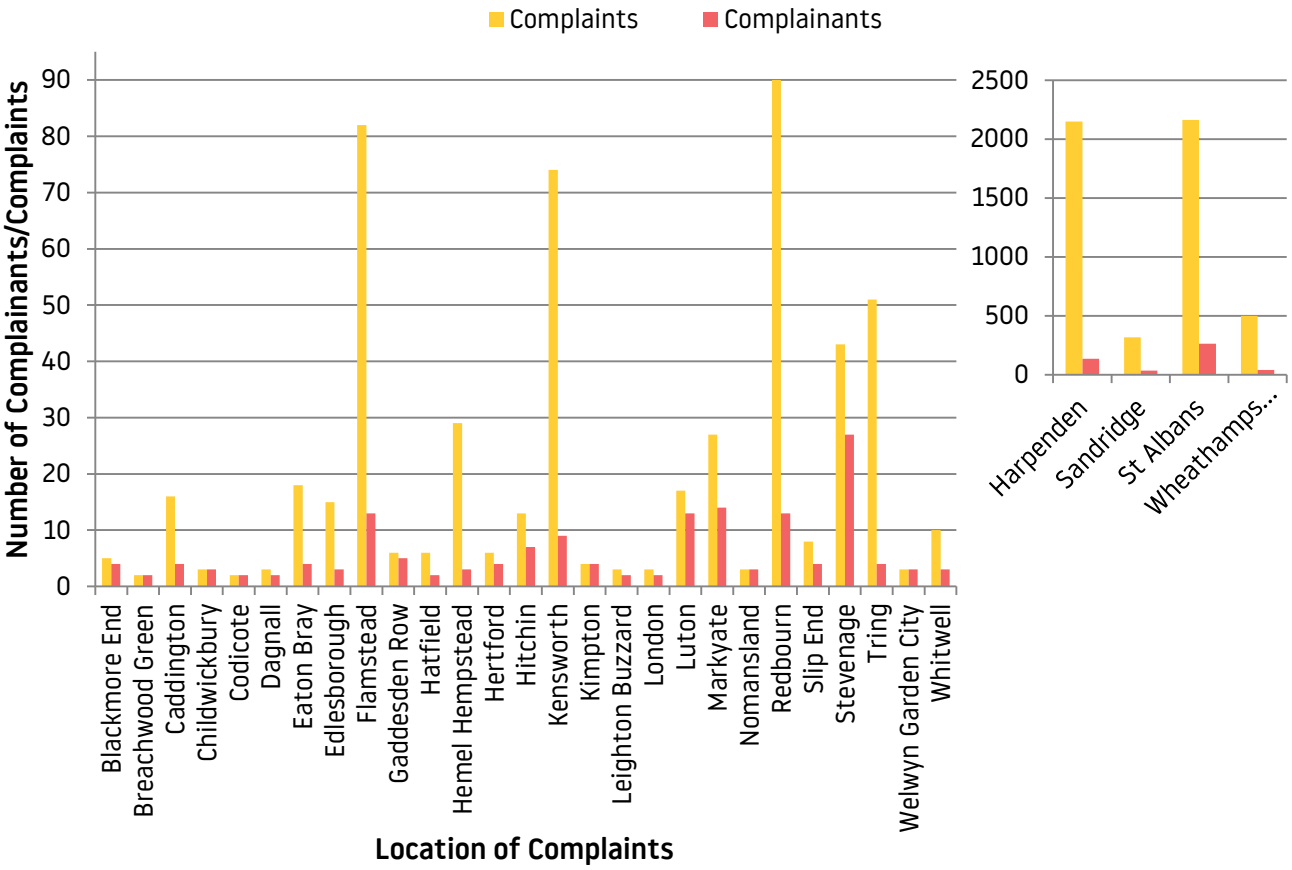
The diagram below shows aircraft types generating specific complaints.



6.5 Origin of Complaints

The chart below identifies the areas around the Airport from which more than one complaint relating to LLA aircraft operations was received during the period July to September 2017.

The communities with one complainant include Ayot St. Lawrence, Bellingdon, Bracknell, Datchworth, Eggington, Essex, Gustard Wood, Ickleford, Kings Walden, Knebworth, Lemsford, Linslade, Little Gaddesden, Milton Bryan, Pepperstock, Preston, Princes Risborough, Queenborough, Royston, Shefford, Soulbury, Steeple Morden, Stotfold, Sudbury, Walkern, Wallington, Watford, Windsor and Woolmer Green.



6.6 Complaints Analysis

During Quarter 3 there has been an increase in complaints compared to the same quarter last year; this is thought to be due to a number of reasons:

- The airport has grown considerably during the quarter, in line with the redevelopment plans. This will have caused an increase in the number of movements on all routes.
- 61% of complaints were generated by ten individuals located in; Wheathampstead, Harpenden, Sandridge and St Albans.
- As winds dictated westerly operations for 83% of the time, the largest percentage of complaints related to aircraft using our westerly routes, particularly westerly departures on the Match/Detling route.
- The Post Implementation Review data collection period was also part of this quarter and with an increase in complaints in September to be included as part of the review.

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
E-mail	20%
TraVis	77%
Telephone	3%

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	39%
1	19%
2	15%
3	9%
4	8%
5	2%
6	1%
7	1%
8	1%
9	1%
10	1%
11	0%
12+	3%

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 the quarter the team met with the parish councillors of Ivinghoe on the 18th July, the team discussed the operation and the aircraft overflying this area. Additionally, Bim Afolami MP met with the team to discuss aircraft noise in his constituency.

7.2 Airport Visits to the Community

The Flight Operations team held two Public Surgeries during Quarter 3, one was in Whitwell on the 25th July and another in Caddington on the 20th September. Main concerns in both areas related to aircraft operating during the night time period. The objective of the Public Surgeries is to ensure that the communities have an opportunity to meet face to face with the Flight Operations Department and that everyone who attends is better informed about aircraft operations on their area. More public surgeries are scheduled; details of which can be found at the following website: https://www.london-luton.co.uk/corporate/community/noise/noise-surgeries which is updated accordingly.

Furthermore, as part of the Airspace Change Process for the westerly Match/Detling route, a focus group was formed, this group met for the first time on the 18th September.