Quarterly Monitoring Report
Qtr 2 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 April to June 2018.

KEY MONITORING INDICATORS – 2nd QUARTER 2018

Parameter		2nd Quarter 2018	2nd Quarter 2017
Total Passenger Number	↑	4,445,844	4,289,031
Total Aircraft Movements	↓	36,461	36,664
Night Movements (23.00 – 07.00)	↑	4,926	4,845
Early Morning Movements (06.00 – 07.00)	↓	1,736	1,809
Aircraft Movement and Quota Count limits (per rolling 12-month period)			
Night Quota Movements (*9,650 limit*)	↑	8,468	7,635
Night Quota Count (*3,500 limit*)	↑	2,930.75	2,714.25
Early Morning Shoulder (*7,000 movements*)	↑	5820	5,635
24hr CDA (% achievement)	↑	93%	91%
Day CDA (% achievement)	↑	94%	91%
Night CDA (% achievement)	↑	93%	89%
Track Violations	↓	7	14
Departure Noise Infringements (Day)	↓	0	1
Departure Noise Infringements (Night)	-	0	0
Noise Monitor Results			
No. Day (Night) > 80 dB(A)	-	18 (0)	33 (0)
No. Day (Night) > 75 dB(A)	-	1,487 (241)	2,070 (362)
No. Day (Night) > 70 dB(A)	-	11,676 (1,565)	12,476 (1,643)
Night Noise Contour Area (48 dB $L_{Aeq, 8h}$)	↑	38.3km2	35.1km2
Noise Complaints	↓	2,335	5,304
Complainants	↓	311	527
Number of New Complainants	↓	152	280
Largest Source of Complaints	-	Deps. West	Deps. West
Origin of Concerns (>5 Complainants)	-	Caddington Flamstead Kensworth Knebworth Luton Markyate Sandridge Stevenage Harpenden St Albans Wheathampstead	Childwickbury Flamstead Harpenden Hitchin Kensworth Luton Markyate Redbourne Sandridge St Albans Stevenage Wheathampstead
Westerly/Easterly Runway Split (%)	-	44/56	69/31

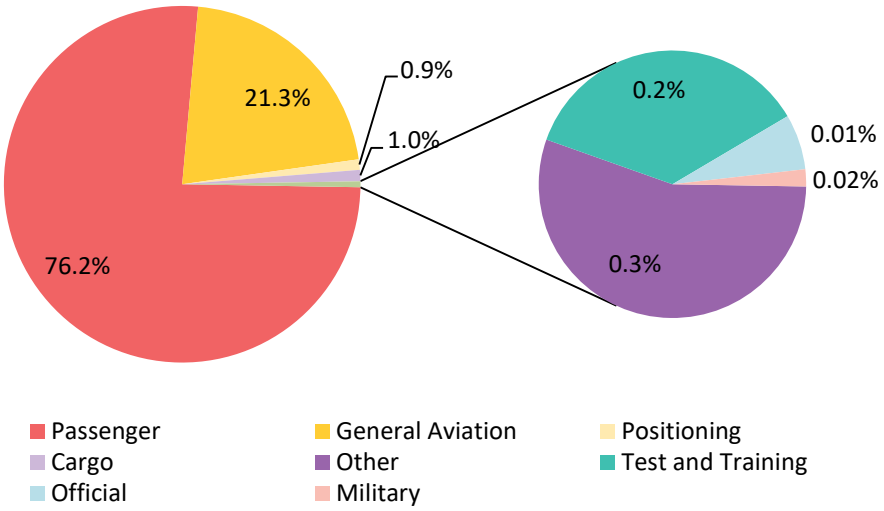
1 AIR TRAFFIC DATA

1.1 Aircraft Movements

There were a total of 36,461 aircraft movements during this quarter (compared with 36,664 for the same period in 2017), a decrease of 0.5%.

This resulted in an average 400 movements per 24 hours (compared to 403 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*						
April 2018	116	8,880	112	8	4	4	38	2,155	52	**11,371**
May 2018	130	9,396	133	5	0	3	39	2,893	8	**12,607**
June 2018	127	9,492	84	4	0	6	30	2,730	10	**12,483**
QTR Total	**373**	**27,768**	**329**	**17**	**4**	**13**	**107**	**7,778**	**70**	**36,461**

1.2 Passenger Statistics

A total of 4,445,844 passengers passed through LLA during the period April to June 2018 (compared with 4,289,031 for the same period last year), 4,336,483 on scheduled flights (98%) and 109,361 on charter flights (2%). This represents an increase in passengers of 4% year on year and equates to an average 48,855 passengers per 24 hours (compared to 47,132 during the second quarter last year).

	Domestic	EU	Non-EU	Total
April 2018	104,792	906,853	374,065	**1,385,710**
May 2018	107,099	989,433	401,265	**1,497,797**
June 2018	108,339	1,026,249	427,749	**1,562,337**
QTR Total	**320,230**	**2,922,535**	**1,203,079**	**4,445,844**

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

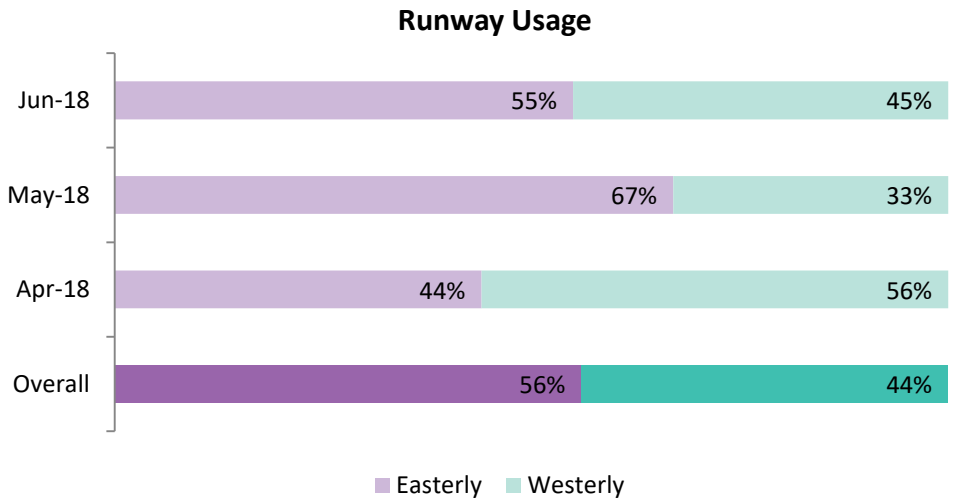
[1] Other relates to flights coming for maintenance and or departing aircraft that has made an unscheduled return to base

[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 56% easterly and 44% westerly (compared to 31% / 69% 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.

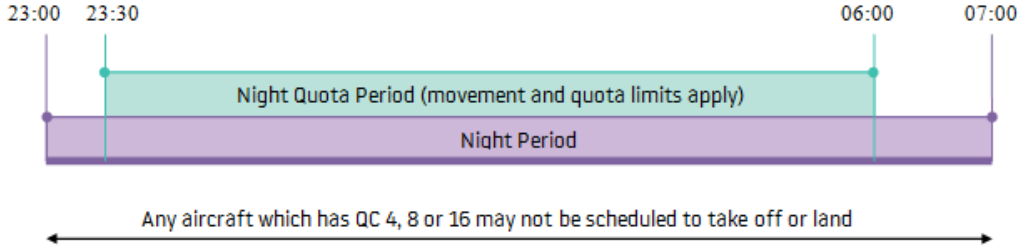
Aircraft are certified by the International Civil Aviation Organisation (ICAO) according to the noise they produce during specific certification tests conducted by the manufacturer. They are classified separately for both take-off and landing. The points are then allocated to different aircraft types 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 April to June 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*
Jul 2017	1,063	338.75	622
Aug 2017	989	332.75	637
Sep 2017	898	284.50	637
Oct 2017	832	272.00	593
Nov 2017	204	59.25	336
Dec 2017	481	198.50	303
Jan 2018	413	172.50	294
Feb 2018	404	149.50	284
Mar 2018	581	218.50	378
April 2018	778	264.75	558
May 2018	976	325.25	638
June 2018	849	314.50	540
QTR Total	**2,603**	**904.50**	**1,736**
Total for preceding 12 months	*8,468*	*2930.75*	*5,820*

1.5 Day/Night Ratio of Movements - Actual

There were 4,926 night operations during the quarter (compared to 4,845 for the second quarter 2017), an average 54 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. 29% 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 (in line with 87% / 13% for the same quarter last year).

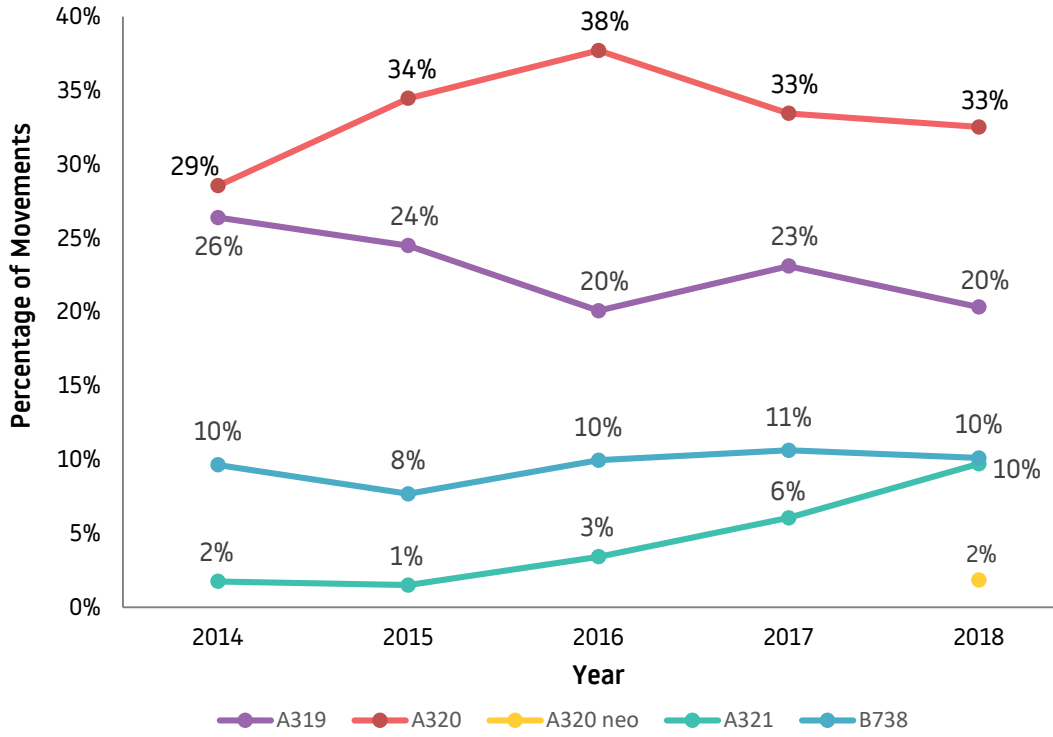
	Day Movements (0700-2300)			Night Movements (2300-0700)					Total
	Day movements			*Night Quota Period (2330-0600)*		*Early Morning Shoulder (0600-0700)*		*Total Night Movements (2300 – 0700)*	
	A	D	Total	A	D	A	D		
Jul 2017	5,426	5,800	11,233	836	227	126	496	1,903	13,138
Aug 2017	5,227	5,478	10,677	768	221	118	519	1,886	12,662
Sep 2017	5,226	5,562	10,866	710	188	127	510	1,760	12,491
Oct 2017	5,153	5,460	10,684	603	229	110	483	1,635	12,057
Nov 2017	4,186	4,305	8,536	121	83	127	209	635	9,012
Dec 2017	4,299	4,648	9,167	296	185	89	214	922	9,607
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**
QTR Total	**15,321**	**16,214**	**31,535**	**2,089**	**514**	**325**	**1,411**	**4,926**	**36,461**
Total for preceding 12 months	*58,088*	*60,857*	*119,338*	*6,333*	*1,908*	*1,259*	*4,561*	*16,395*	*134,796*

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*
July 2018	11,735	1,132	719	2,099	13,834
August 2018	11,025	1,051	724	2,075	13,100
September 2018	11,118	972	726	1,951	13,069
October 2018	10,788	830	665	1,732	12,520
November 2018	8,760	387	366	867	9,627
December 2018	9,007	508	333	992	9,999
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
Total for following 12 months	125,226	8,673	6,841	17,348	*142,574*

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 06:59 hrs.

		Departures											Total
		MATCH/ DETLING			*COMPTON*		*OLNEY*		*Other**		*Helicopter*		
		08	26 Conv.	26 RNAV	08	26	08	26	08	26	08	26	
Apr 2018	Daytime	1,231	4	1,494	707	912	277	337	17	27	5	18	**5,029**
	Night-time	122	1	143	136	165	27	39	1	4	0	0	**638**
May 2018	Daytime	1,945	7	950	1,306	674	403	209	32	21	3	28	**5,577**
	Night-time	243	0	114	189	123	42	27	1	5	1	0	**745**
Jun 2018	Daytime	1,641	8	1,092	1,092	912	321	259	23	32	5	30	**5,608**
	Night-time	148	0	131	131	162	22	25	2	2	0	0	**629**
QTR	**Total**	**5,330**	**20**	**4,123**	**1,223**	**1,074**	**1,092**	**896**	**76**	**91**	**13**	**76**	**18,226**
	Daily Average	*59*	*<1*	*45*	*13*	*12*	*12*	*10*	*<1*	*1*	*<1*	*<1*	*200*

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 99.54%. 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
Apr 2018	2	£2,000
May 2018	3	£3,000
June 2018	2	£2,000
QTR	**7**	**£7,000**

	Airline or Aircraft Operator	Aircraft Type/Occurrence
Apr 2018	European Air Transport	B752/1
	Ryanair	B738/1
May 2018	Ryanair	B738/1
	Privately owned aircraft	GL5T/1
	Ryanair	B738/1
Jun 2018	Privately owned aircraft	GL5T/1
	Privately owned aircraft	C500/1

3 ARRIVING AIRCRAFT

3.1 Arrivals Route Analysis

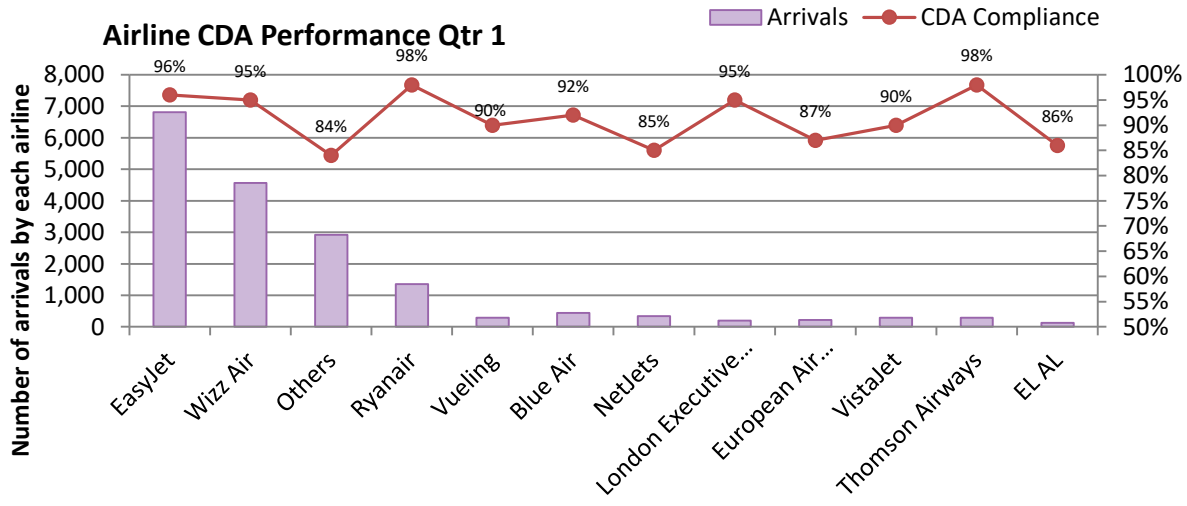
The following table reports the total number of arrivals differentiating between easterly (08), westerly (26) operations and helicopters between 23:00 hrs and 07:00 hrs.

		Arrivals			Total
		08	26	Heli	
Apr 2018	Daytime	2,066	2,738	23	**4,827**
	Night-time	364	512	1	**877**
May 2018	Daytime	3,449	1,729	31	**5,209**
	Night-time	735	339	2	**1,076**
Jun 2018	Daytime	2,946	2,304	35	**5,285**
	Night-time	563	398	0	**961**
QTR	**Total**	**10,123**	**8,020**	**89**	**18,235**
	Daily Average	*111*	*88*	*<1*	*200*

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.

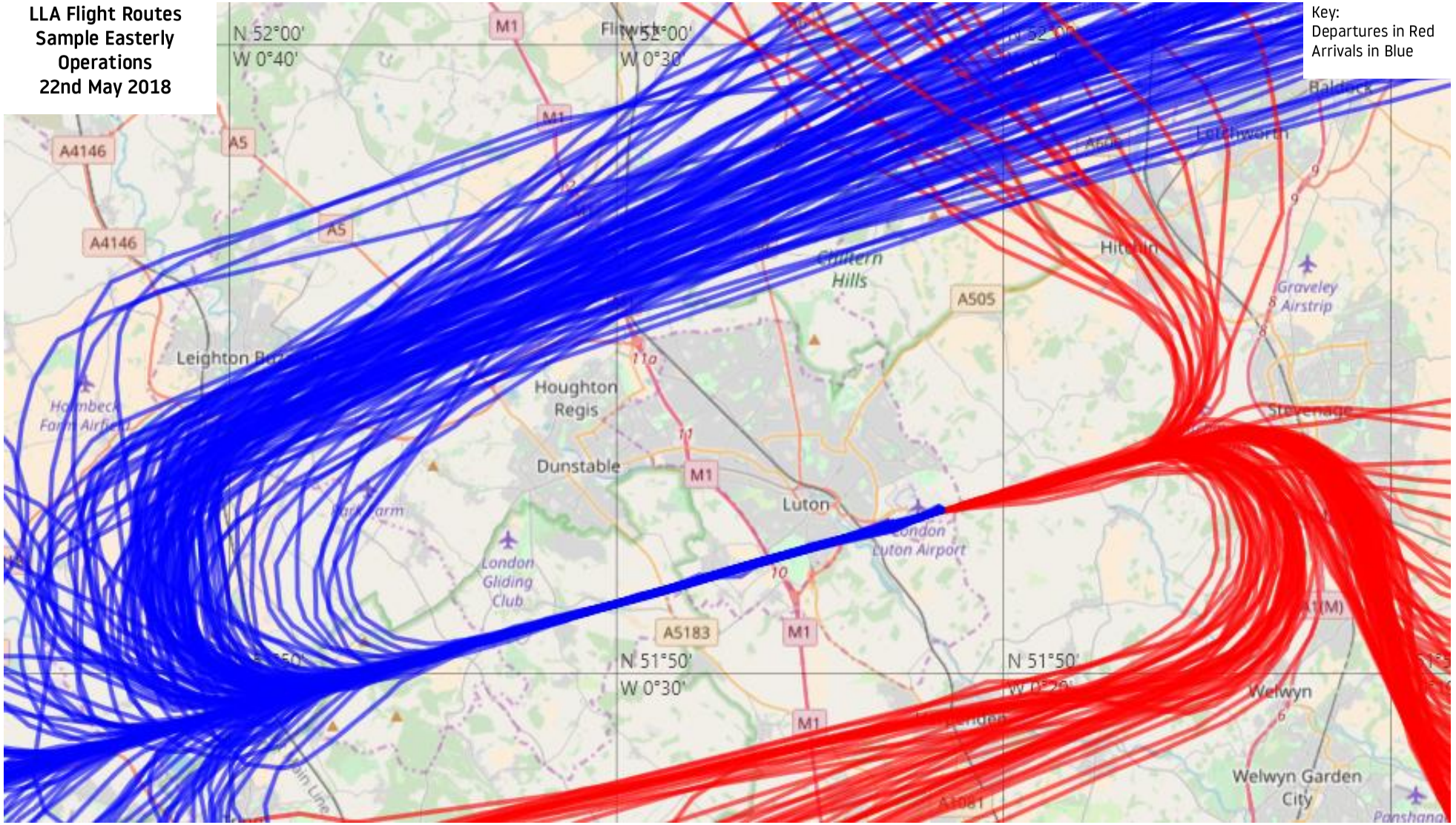
	All Arrivals			08 Easterly Arrivals			26 Westerly Arrivals		
	% CDA			*% CDA*			*% CDA*		
	Total	*Day*	*Night*	*Total*	*Day*	*Night*	*Total*	*Day*	*Night*
Apr 2018	**92%**	92%	91%	**94%**	94%	94%	**91%**	91%	88%
May 2018	**94%**	94%	93%	**95%**	96%	94%	**91%**	90%	92%
Jun 2018	**94%**	94%	94%	**96%**	96%	95%	**92%**	92%	93%
QTR Total	**93%**	94%	93%	**95%**	95%	94%	**91%**	91%	91%

The overall CDA achievement was 93% with several major LLA operators achieving high performance – easyJet, Wizz Air, Ryanair and Thomson Airways.

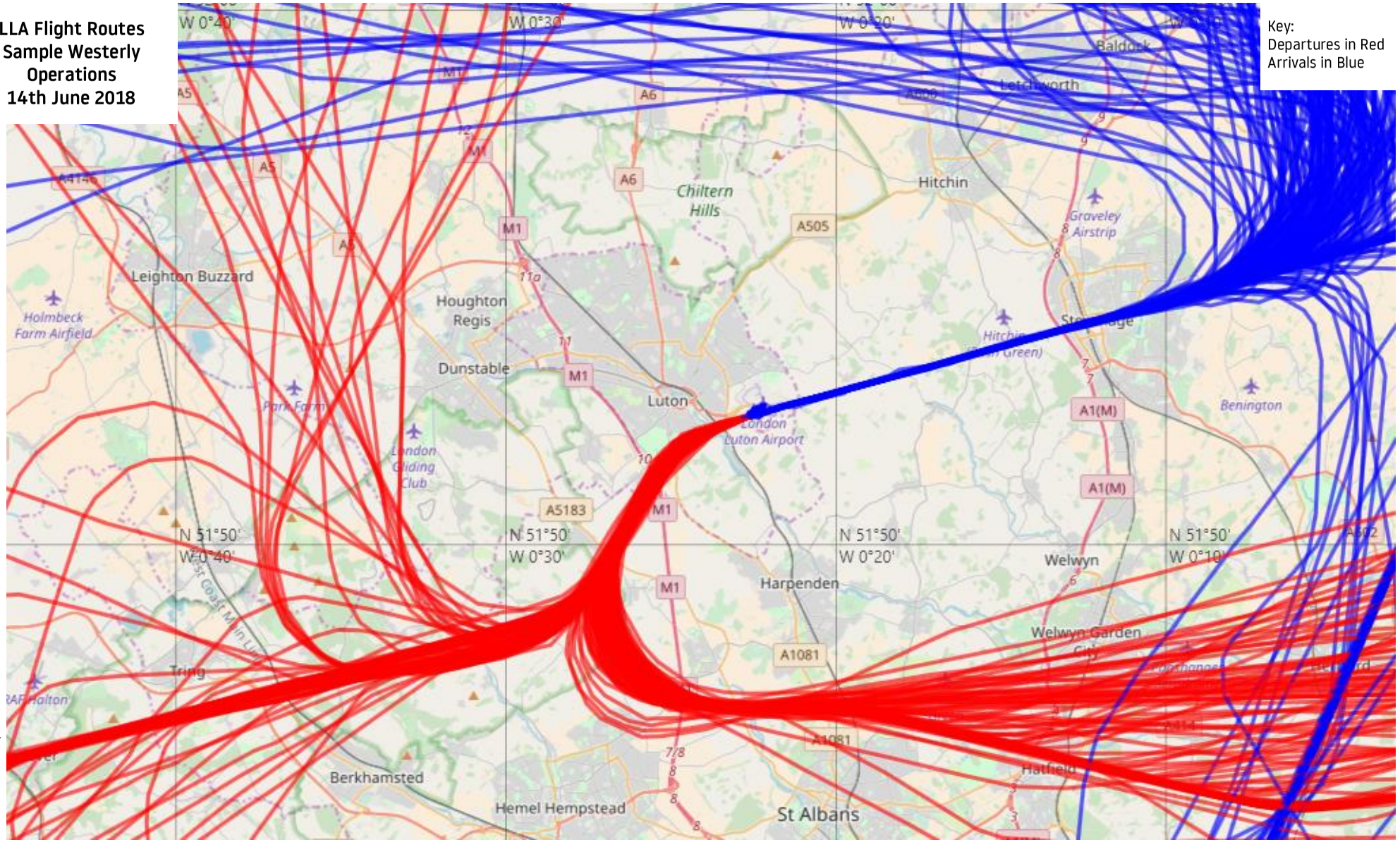


The maps overleaf, produced from the Topsonic Aircraft Noise & Track Monitoring System, identify samples of actual flown aircraft tracks operating from LLA (arrivals and departures during both easterly and westerly operations) for a typical 24-hour period within the second quarter of 2018.

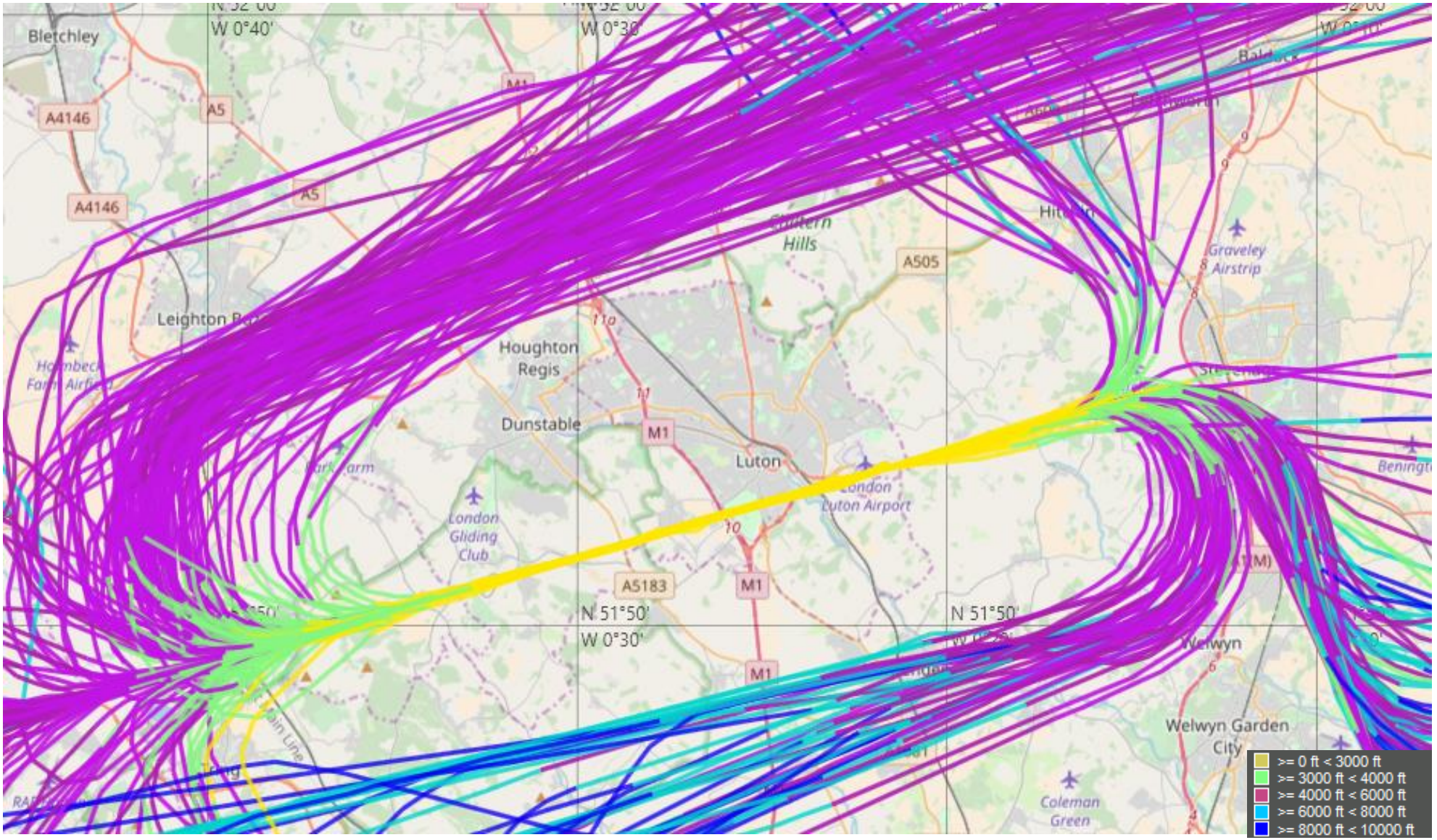
LLA Flight Routes
Sample Easterly Operations
22nd May 2018



LLA Flight Routes
Sample Westerly
Operations
14th June 2018



2nd Quarter 2018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Houghton Regis
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Coleman Green
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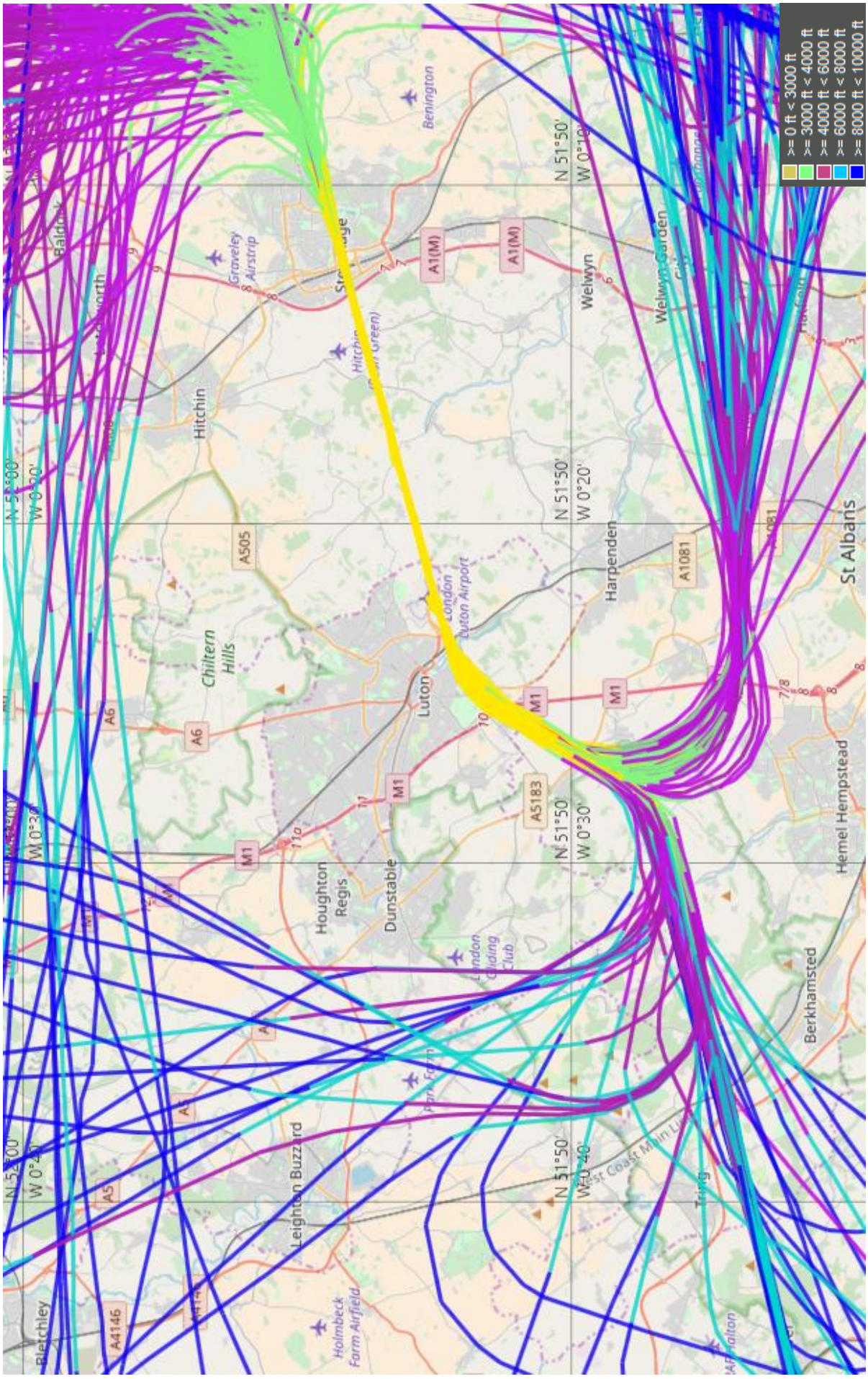
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Welwyn
Welwyn Garden City
Hemel Hempstead
Berkhamsted
Leighton Buzzard
Houghton Regis
Chiltern Hills
Graveley Airstrip
London Luton Airport
London Gliding Club
Holmbeck Farm Airfield
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4 AIRCRAFT NOISE

During the 2nd quarter of 2018, the maximum noise levels less than 79 dB(A) was recorded by 99% of correlated departing aircraft in line with 98% for the same quarter last year.

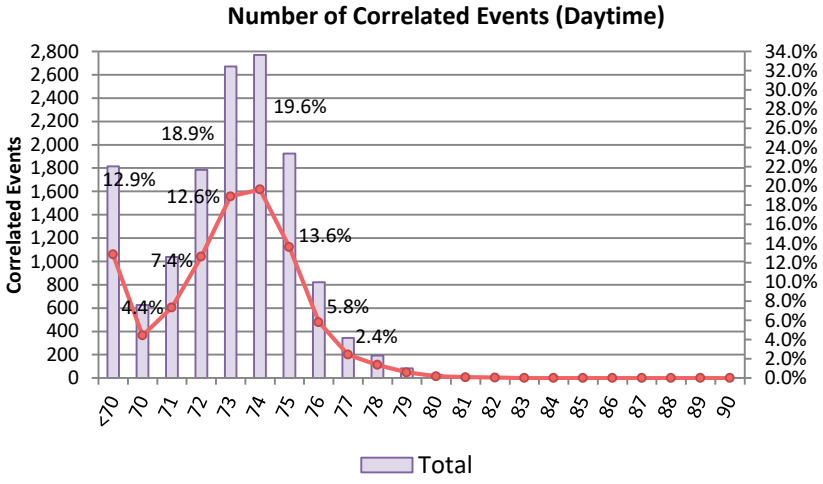
The maximum noise level less than 76 dB(A) was recorded by 89% of correlated departing aircraft slightly increased compared to 85% for the same period last year.

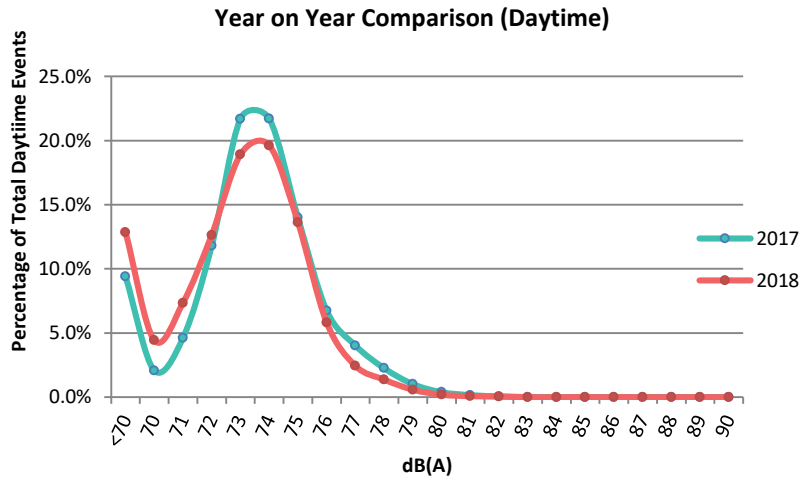
There were no noise violations in this quarter, compared to one daytime noise violation and no night time noise violations during the 2nd quarter 2017.

4.1 Daytime Noise Levels – April to June 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)*	Apr	May	Jun	QTR
	<70	496	665	655	1,816
	70	209	204	213	**626**
	71	303	371	364	**1,038**
	72	425	658	702	**1,785**
	73	750	972	948	**2,670**
	74	976	921	874	**2,771**
	75	670	653	602	**1,925**
	76	308	270	244	**822**
	77	125	116	104	**345**
	78	81	64	48	**193**
	79	36	23	23	**82**
	80	16	7	4	**27**
	81	7	4	0	**11**
	82	3	1	3	**7**
	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		**4,405**	**4,929**	**4,784**	**14,118**

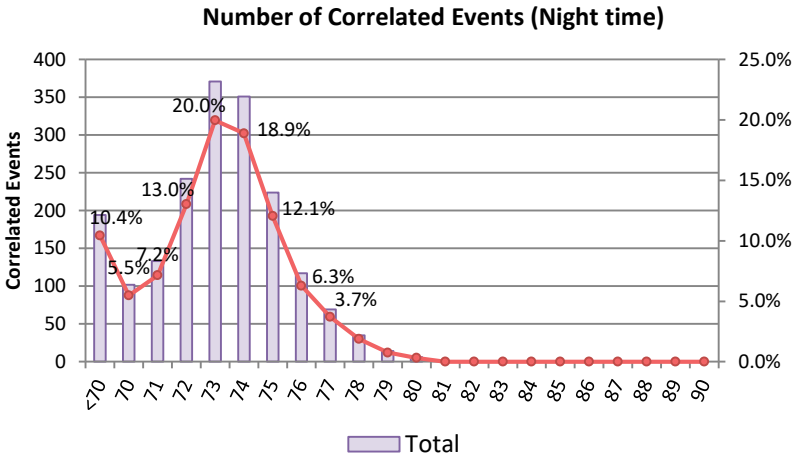


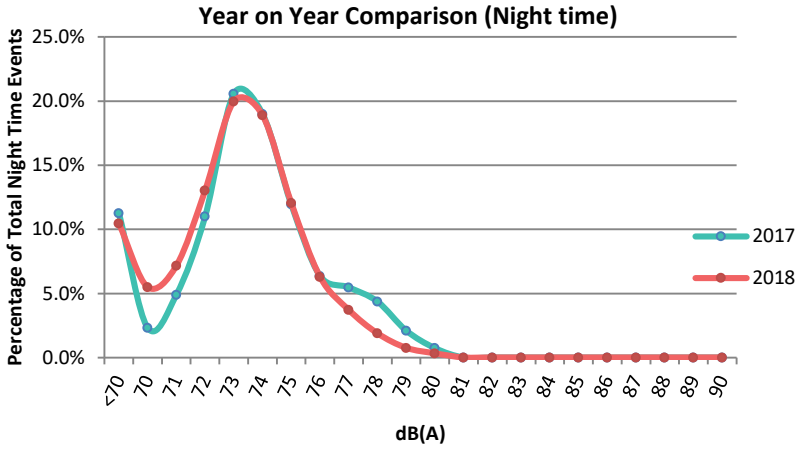


4.2 Night Noise Levels – April to June 2018

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)*

Number of Correlated Events (Night time)	*db (A)*	Apr	May	Jun	QTR
	<70	55	72	67	**194**
	70	21	46	35	**102**
	71	33	51	49	**133**
	72	73	88	81	**242**
	73	114	142	115	**371**
	74	126	125	100	**351**
	75	72	89	63	**224**
	76	34	41	42	**117**
	77	26	16	27	**69**
	78	14	11	10	**35**
	79	8	3	3	**14**
	80	3	2	1	**6**
	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		**579**	**686**	**597**	**1,858**





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 Qtr2 (April to June 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 second quarter of 2018 works were completed on 16 properties in both Hertfordshire and Bedfordshire. LLA continues to insulate properties as part of the Noise Insulation Scheme.

5 NOISE CONTOURS

5.1 Night Noise Contours – April to June 2018

5.1.1 Contour Production

Aircraft movement data for use in the contour production has been supplied by LLAOL. The contour production methodology has been updated from that used for the 2017 contours. It retains the inclusion of terrain, and the use of the INM software (Version 7.0d), but the validation has been updated. The validation is now based on measured results in 2017 at the fixed noise monitors. User-defined profiles for the most common aircraft have been used, as for the 2017 contours.

5.1.2 Noise Contour Results

The resulting noise contours are shown in the attached Figure A11060-NN18-Q2 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 (January – March 2018), which have been re-computed using the latest prediction methodology, and the equivalent quarter during the previous year (April – June 2017).

Contour Value (dB $L_{Aeq,8h}$)	Contour Area (km^2)		
	Apr – Jun 2017	*Jan – Mar 2018*	*Apr – Jun 2018*
48	35.1	23.1	38.3
51	19.9	12.6	21.4
54	10.5	6.8	11.5
57	5.7	3.7	6.3
60	3.0	1.9	3.4
63	1.6	1.2	1.8
66	1.0	0.7	1.1
69	0.6	0.5	0.7
72	0.4	0.3	0.4
W/E Split (%)	68/32	64/36	44/56

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	Apr – Jun 2017	Jan – Mar 2018	Apr – Jun 2018
B733	30	24	13
B734	n/a	86	75
B738	704	304	634
B752	166	141	222
A306	146	135	133
A319	907	261	1,017
A320 (ceo)	1,688	938	1,734
A320 (Neo)	17	65	179
A321	127	65	326
A333	n/a	37	22
CL600	70	49	15
CL601	37	38	45
C441	71	28	30
C500	n/a	n/a	11
C510	22	10	n/a
C525	51	27	30
C56X	52	54	31
C680	13	n/a	12
D328	109	n/a	n/a
E145	66	38	18
F100	81	43	33
GLF4	50	38	28
GLF5	299	261	212
LJ35	34	25	18
Other	81	45	45
Total	4,821	2,724	4,894

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 an increase of 2% in the total number of movements. The proportion of arrivals in the second quarter has increased slightly, going from 56% in 2017 to 59% in 2018, with a corresponding reduction in the proportion of departures.

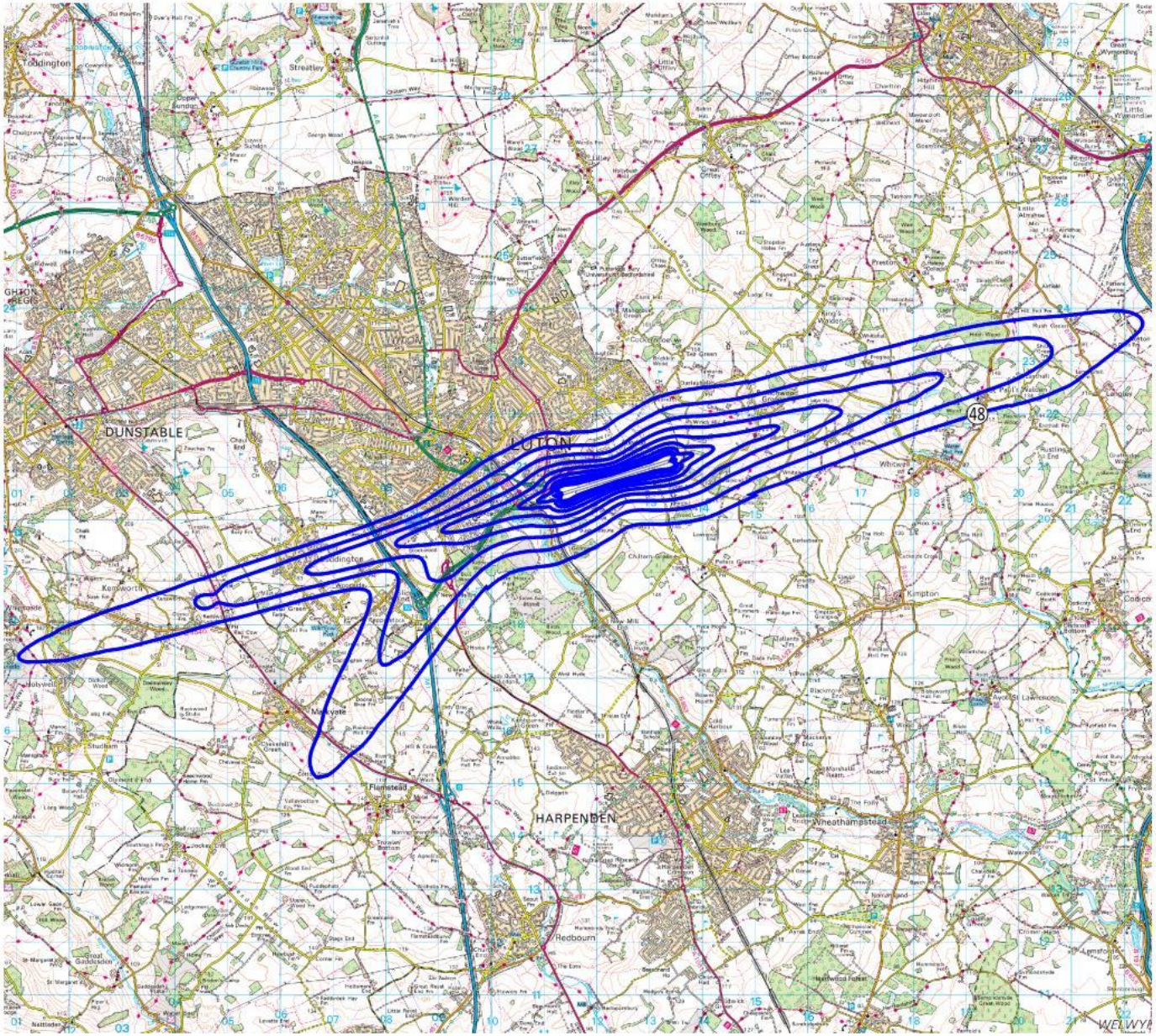
The aircraft mix has changed, with an increase in the proportion of passenger turbofan operations, which comprised 89% of the total operations in 2018 Q2, compared to 79% the same quarter in 2017. In particular operations by the Airbus single aisle aircraft types have increased, while movements by the Boeing 737-800 and most business jet types have decreased.

The proportion of modernised aircraft types has increased. 9% of Airbus A320 operations were conducted by the quieter A320neo variant in 2018 Q2 compared to 1% in the same quarter in 2017. The measured results indicate this new aircraft variant is approximately 4 dB quieter on departure at Luton.

The modal split has changed compared to the same quarter in 2017, with 44% of movements in Q2 2018 using runway 26, compared to 68% in 2017 Q2.

The area within the 48 dB(A) noise contour has increased by 9% compared to the same quarter last year. This increase is mainly due to the 14% increase in movements by passenger turbofan aircraft resulting from delayed arrivals.

The number of movements, and therefore the contour area, has increased compared to the previous quarter (January – March 2018).



LEGEND:

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

REVISIONS

Bickerdike Allen Partners
Architecture
Acoustics
Technology

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London Luton Airport
Regular Contouring

Airborne Aircraft Noise Contours
Apr-Jun 2018 Average Night time

DRAWN: CT CHECKED: DR

DATE: August 2018 SCALE: 1:100000@A4

FIGURE No:

A11060/NN18/Q2

6 COMPLAINTS

6.1 Total Complaints relating to LLA aircraft operations

	2nd QTR 2018	2nd QTR 2017
Total No. of Complaints relating to LLA aircraft operations	2,335	5,304
No. of Complainants	311	527
No. of General Complaints	485	1,232
No. of Specific Complaints	1,850	4,072
Average No. of Complaints per Complainant	7.5	10.0
No. of Aircraft Movements per Complaint	16	7

During the last quarter a total of 2,335 complaints relating to LLA aircraft operations (on average just over 25 complaints per 24 hours) were received by the Flight Operations Department. This is compared to the 5,304 complaints which were received for the same period last year. It should be noted that 53% were received by 10 individuals.

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

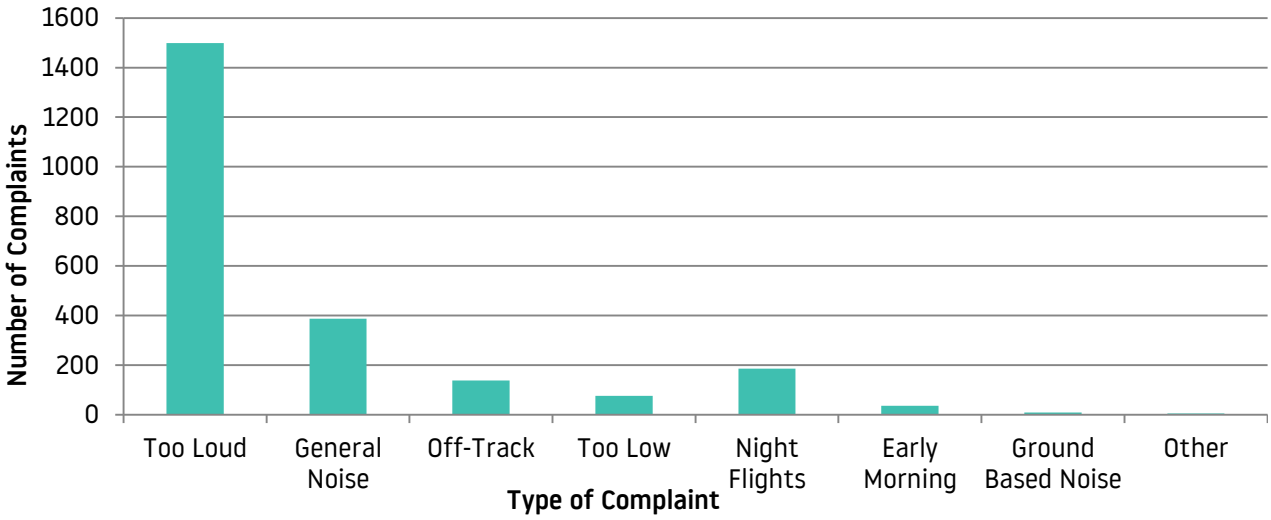
Apr 2018	928 complaints	(818 Specific Complaints, 110 General Complaints)
May 2018	810 complaints	(587 Specific Complaints, 223 General Complaints)
June 2018	597 complaints	(445 Specific Complaints, 152 General Complaints)

A further 309 complaints not attributable to LLA traffic were received throughout the quarter, compared to 265 complaints for the period January to March last year.

Out of 311 total complainants, there were 189 that contacted the airport only once meaning that 122 complainants generated 2,146 complaints.

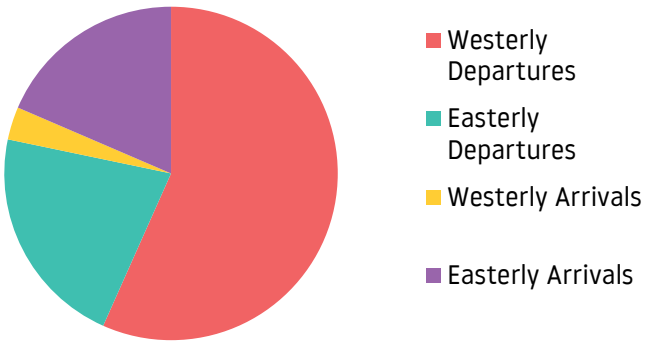
6.2 Type of Complaint

The types of complaint received by the Flight Operations Department from April to June 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 April to June 2018.



Within the 1,015 specific aircraft complaints concerning westerly departures, 1,004 complaints involved aircraft on the Match/Detling heading, 4 related to aircraft following Compton flight route, 5 related to aircraft using the Olney route and 2 complaints were recorded about aircraft following an off-airways routing.

With regard to the 387 complaints attributed to easterly departures, 350 related to aircraft following the Compton flight route, 15 aircraft on the Match route, 8 aircraft following the Olney route and 14 using an off-airways routing.

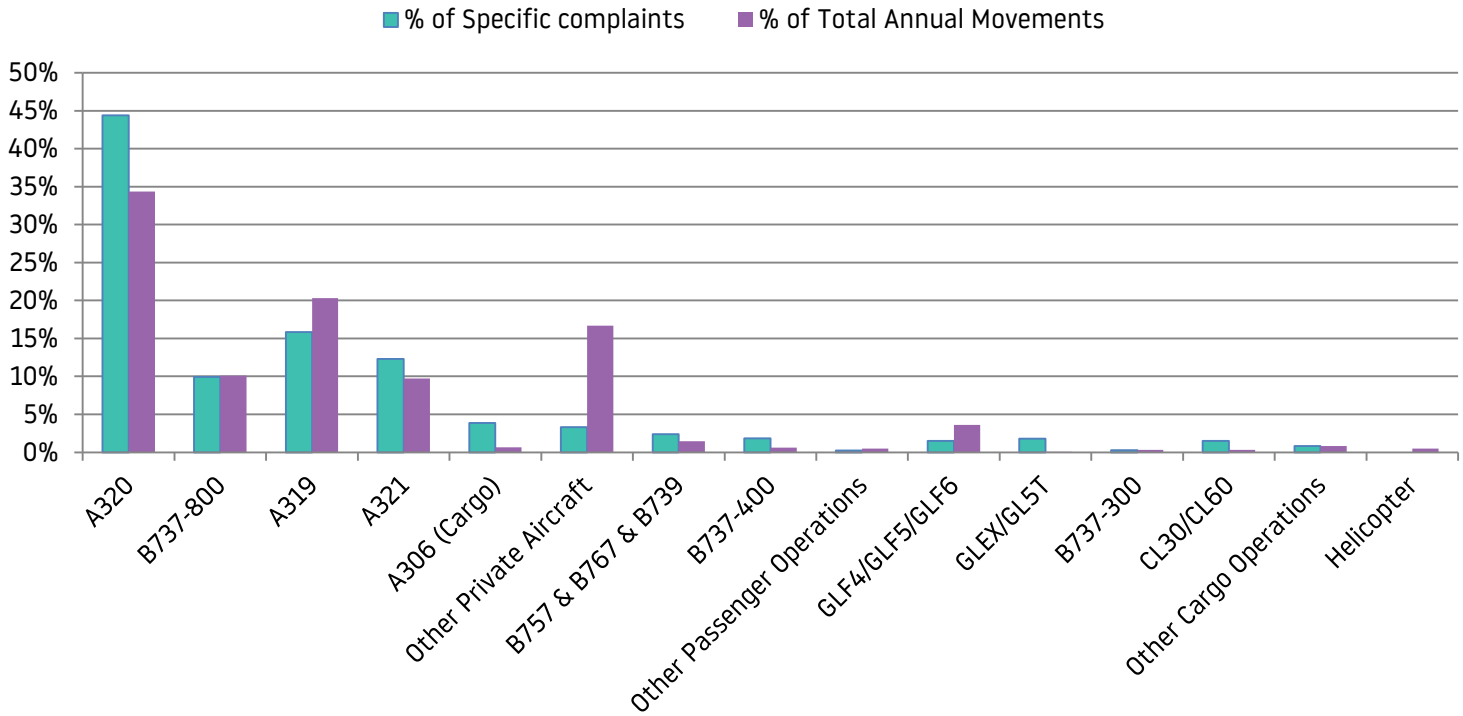
In total the Flight Operations Department received 389 specific complaints regarding arrivals. 332 of these complaints were about easterly arrivals and a further 57 concerning westerly arrivals.

34 Complainants reported noise disturbance at night (compared to **88 Complainants** for the same Quarter last year)

Departing aircraft accounted for 67% of the 137 specific night complaints and 33% involved arrivals. Cargo flights, involving A306 and B752 aircraft were reported in 27% of night complaints, whilst passenger aircraft accounted for 62% of night complaints and executive aircraft were correlated to 11% of night complaints.

6.4 Complaints by aircraft type

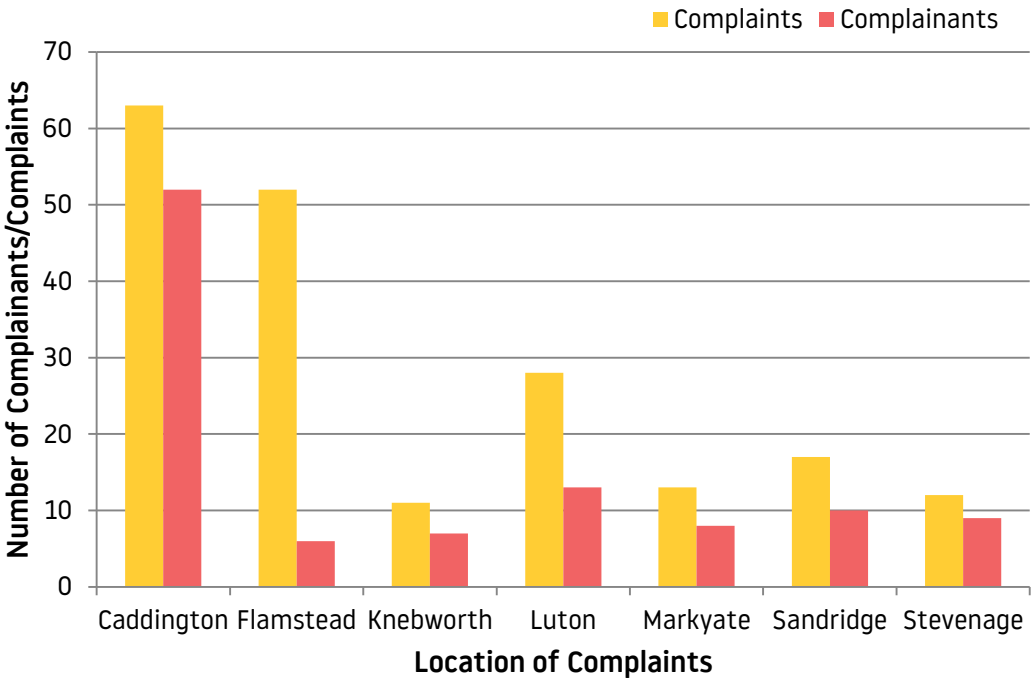
The diagram below shows aircraft types generating specific complaints.

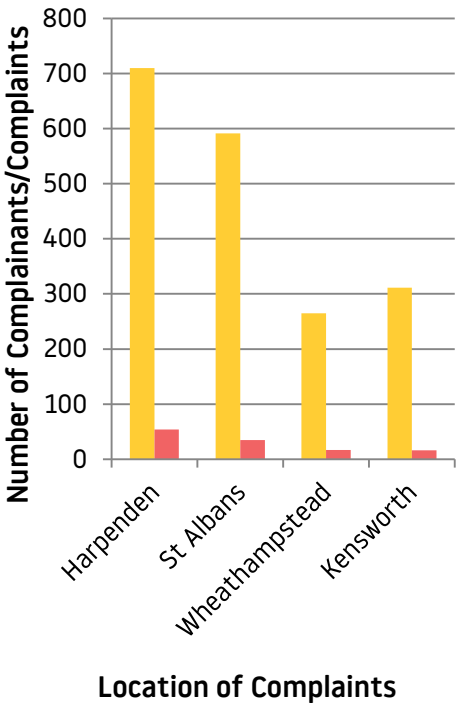


6.5 Origin of Complaints

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 April to June 2018.

The communities with one complainant include Ayot St Lawrence, Bellingdon, Breachwood Green, Codicote, Datchworth, Dunton, Essex, Hertford, Leighton Buzzard, Pepperstock, Preston, Redbourn, Royston, Stevenage, Studham, Ware, Whitwell and Wilstone.





6.6 Complaints Analysis

During Quarter 2 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 number of movements has decreased slightly compared to Quarter 2 in 2017.
- The wind direction allowed natural respite for communities, which is likely to have reduced the number of complaints.
- There was a large increase in Easterly operations, overflying areas not overflown on a consistent basis due to natural respite, this saw an increase in the number of new complainants.
- High numbers of complaints were still recorded from specific locations, for example Harpenden, St Albans and Wheathampstead and Kensworth. Complaints from these areas accounted for 80% of total complaints.
- As winds dictated Westerly operations for 44% of the time, the largest percentage of complaints related to aircraft operations during westerlies.

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	15%
TraVis	79%
Telephone	6%

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	35%
1	17%
2	12%
3	7%
4	2%
5	2%
6	2%
7	1%
8	2%
9	1%
10	4%
11	1%
12+	1%

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. Unfortunately, this quarter no members of the community visited LLA.

7.2 Airport Visits to the Community

The Flight Operations team arranged a public surgery in Wheathampstead on the 9th May 2018 many residents had questions and concerns regarding the easterly & westerly departures, approx. 30 residents attended. 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)

On the 14th May, James Dontas with Mike Penning MP and some of his constituents to discuss concerns relating to aircraft noise from westerly departures.

Furthermore, on the 5th July the westerly Match/Detling Airspace Change Focus Group met to discuss designs and an outcome of the meeting with NATS. The meeting was productive and the committee provided feedback.