

# AIRFIELD ENVIRONMENT REPORT

## 1. INTRODUCTION

- 1.1. The purpose of this report is to advise members of statistics concerning LLA aircraft operations and related complaints during the period October to December 2014.

## 2. AIRCRAFT MOVEMENTS / PASSENGER STATISTICS

### 2.1 Total Aircraft Movements

There were a total of 24,651 aircraft movements during the quarter (compared with 22,877 for the same period in 2013), an increase of 8%. This resulted in an average 268 movements per 24 hours (compared to 249 last year).

A breakdown of these movements is shown below:

	Oct 2014	Nov 2014	Dec 2014	Total %	QTR Total
Cargo	154	141	143	1.8%	438
Passenger	7,198	5,479	5,789	74.9%	18,466
Other Positioning	500	370	455	5.4%	1,325
Stansted Positioning	14	16	16	0.2%	46
Military	0	0	2	0.0%	2
Official	0	2	4	0.0%	6
Other Non-Commercial*	33	29	36	0.4%	98
General Aviation**	1,595	1,368	1,271	17.2%	4,234
Test & Training	12	14	10	0.1%	36
<b>Total</b>	<b>9,506</b>	<b>7,419</b>	<b>7,726</b>	<b>100%</b>	<b>24,651</b>

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

\*\* General Aviation incorporates Private Aircraft, Helicopters and Business Jets.

### 2.2 Passenger Statistics

A total of 2,360,052 passengers passed through LLA during the period October to December 2014 (compared with 2,163,177 for the same period last year), an increase of 9% year on year. This equates to an average 25,653 passengers per 24 hours (compared to 23,513 during the fourth quarter last year).

### 2.3 Runway Usage

The runway usage split during this period was 26% easterly and 74% westerly (compared to 16% / 84% for the same quarter last year). The breakdown of these statistics, on a monthly basis, is as follows:

Oct 2014	18% easterly / 82% westerly
Nov 2014	45% easterly / 55% westerly
Dec 2014	15% easterly / 85% westerly

## 2.4 Day / Night Ratio of Movements

There were 1,701 night operations during the quarter (compared to 1,591 for the fourth quarter 2013), an average 18 movements per night (compared to 17 last year). Arriving aircraft accounted for 67% of total night movements and the average ratio of total aircraft operations during the quarter was 93% day / 7% night (in line with 93% / 7% for the same period last year).

*N.B. The number of night operations quoted above will differ from those given by Bickerdike Allen & Partners in the night contour figures as the 8 hour Leq contour calculation period extends between 23:00hrs and 07:00hrs, 7 days per week. The figures above are for the night period, as defined in the Night Noise Policy for noise violation purposes, 23:00hrs until 06:00hrs, Mon-Sat and until 07:00hrs on Sundays.*

## 2.5 Departure Route Analysis

The following table reports the total number of departures on each flight route, differentiating between easterly (08) and westerly (26) operations. Night movements quoted below departed between 23:00hrs and 06:00hrs, Mon-Sat and until 07:00hrs on Sunday.

		Match*		Compton		Olney		Other**		Heli	Total
		08	26	08	26	08	26	08	26		
Oct	Day	437	1,858	278	1,270	112	509	6	47	19	4,536
	Night	26	83	20	67	5	22	0	1	0	224
	Total	463	1,941	298	1,337	117	531	6	48	19	4,760
Nov	Day	898	1,059	439	575	237	269	21	33	8	3,539
	Night	36	41	27	33	11	6	0	0	8	162
	Total	934	1,100	466	608	248	275	21	33	16	3,701
Dec	Day	306	1,675	147	1,033	68	418	7	36	16	3,706
	Night	14	85	11	48	0	7	0	1	5	171
	Total	320	1,760	158	1,081	68	425	7	37	21	3,877
Day Total		1,641	4,592	864	2,878	417	1,196	34	116	43	11,781
Night Total		76	209	58	148	16	35	0	2	13	557
Total		1,717	4,801	922	3,026	433	1,231	34	118	56	12,338

\* Match (formerly Clacton)/Detling departures have been merged as the immediate flight routes follow the same path.

*N.B. NATS removed the Dover SID on 29<sup>th</sup> May 2014 and replaced this with the existing Detling SID to enable more accurate fuel planning. The Clacton SID was renamed Match on 18<sup>th</sup> September 2014.*

\*\* This category relates to those aircraft that are not required to follow Noise Preferential Routes on Non-Airways Departures, such as Test/Training flights or short positioning flights.

## 2.6 Arrivals Route Analysis

The following table reports the total number of arrivals differentiating between easterly (08), westerly (26) operations and helicopters. Night movements quoted below landed between 23:00hrs and 06:00hrs, Mon-Sat and until 07:00hrs on Sunday.

This report also includes percentage figures for flights that have 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 5,000ft.

		Arrivals				CDA		
		08	26	Heli	Total	08 (%)	26 (%)	Total (%)
Oct	Day	754	3,410	19	4,183	91	86	87
	Night	104	459	0	563	78	85	84
	<b>Total</b>	<b>858</b>	<b>3,869</b>	<b>19</b>	<b>4,746</b>	<b>90</b>	<b>86</b>	<b>86</b>
Nov	Day	1,540	1,876	17	3,433	91	87	88
	Night	128	156	1	285	72	84	79
	<b>Total</b>	<b>1,668</b>	<b>2,032</b>	<b>18</b>	<b>3,718</b>	<b>90</b>	<b>86</b>	<b>88</b>
Dec	Day	537	2,997	19	3,553	86	84	85
	Night	37	258	1	296	72	84	83
	<b>Total</b>	<b>574</b>	<b>3,255</b>	<b>20</b>	<b>3,849</b>	<b>86</b>	<b>84</b>	<b>85</b>
<b>Day Total</b>		<b>2,831</b>	<b>8,283</b>	<b>55</b>	<b>11,169</b>	<b>90</b>	<b>85</b>	<b>87</b>
<b>Night Total</b>		<b>269</b>	<b>873</b>	<b>2</b>	<b>1,144</b>	<b>75</b>	<b>84</b>	<b>82</b>
<b>Total</b>		<b>3,100</b>	<b>9,156</b>	<b>57</b>	<b>12,313</b>	<b>89%</b>	<b>85%</b>	<b>86%</b>

### 3. NOISE MONITORING DATA

#### 3.1 Daytime Noise Levels (October to December 2014)

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 94dB(A), between 06:00hrs and 22:59hrs Monday to Saturday and 07:00hrs to 22:59hrs on Sunday, is fined accordingly)*

	Number of Departures (Daytime)										Total
	<70 dB(A)	>=70<73 dB(A)	>=73<76 dB(A)	>=76<79 dB(A)	>=79<82 dB(A)	>=82<85 dB(A)	>=85<88 dB(A)	>=88<91 dB(A)	>=91<94 dB(A)	>=94 dB(A)	
Oct	229	1,062	1,603	476	34	0	1	1	0	0	3,406
Nov	419	547	1,644	437	31	1	0	1	0	0	3,080
Dec	331	395	1,425	513	44	3	1	0	0	0	2,712
% Total	10.5%	22%	51%	15.5%	1.0%	0%	0%	0%	0%	0%	100%
<b>Total</b>	<b>979</b>	<b>2,004</b>	<b>4,672</b>	<b>1,426</b>	<b>109</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>9,198</b>

*(The 8 daytime departures registering maximum noise levels in excess of 82dB(A) during the period October to December 2014 related primarily to ad hoc, older generation business jets, involving B737-200, MD87 and FA50 aircraft types).*

##### 3.1.1 Daytime Noise Violations (October to December 2014)

There were no daytime noise violations during this quarter.

#### 3.2 Night Noise Levels (October to December 2014)

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 82dB(A), between 23:00hrs and 06:00hrs Monday to Saturday and 23:00hrs to 07:00hrs on Sunday, is fined accordingly)*

	Number of Departures (Night time)										Total
	<70 dB(A)	>=70<73 dB(A)	>=73<76 dB(A)	>=76<79 dB(A)	>=79<82 dB(A)	>=82<85 dB(A)	>=85<88 dB(A)	>=88<91 dB(A)	>=91<94 dB(A)	>=94 dB(A)	
Oct	25	46	47	25	5	0	0	0	0	0	148
Nov	24	33	37	40	2	1	0	0	0	0	137
Dec	22	28	36	18	3	0	0	0	0	0	107
% Total	18%	27%	31%	21%	3%	0%	0%	0%	0%	0%	100%
<b>Total</b>	<b>71</b>	<b>107</b>	<b>120</b>	<b>83</b>	<b>10</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>392</b>

*N.B. 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 strong winds and 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.*

### 3.2.1 Night Noise Violations (October to December 2014)

There was one night noise violation during this quarter.

Date/Time (Local)	Aircraft Type	Noise Level	Penalty
12/11/2014 (23:47hrs)	FA7X (Executive Jet)	82.5dB(A)	300% of runway charge

### 3.2.2 Night Noise Contours (October to December 2014)

Night contour data for the 4<sup>th</sup> Quarter 2014 is attached at the end of this report.

## 4. COMPLAINTS

### 4.1 Total Complaints relating to LLA aircraft operations

	4 <sup>th</sup> QTR 2013	4 <sup>th</sup> QTR 2014
Total No. of Complaints relating to LLA aircraft operations	160	155
No. of Complainants	92	73
No. of Events (eliciting a complaint)	240 <sup>#</sup>	518 <sup>#</sup> (172 <sup>*</sup> )
<i>Average No. of Complaints per Complainant</i>	1.7	2.1
<i>Average No. of Events per Complainant</i>	2.6 <sup>#</sup>	7.1 <sup>#</sup> (2.4 <sup>*</sup> )
<i>Average No. of Events per Complaint</i>	1.5 <sup>#</sup>	3.3 <sup>#</sup> (1.1 <sup>*</sup> )
<i>No. of Aircraft Movements per Complaint</i>	143	159
<i>No. of Aircraft Movements per Event</i>	95 <sup>#</sup>	47.6 <sup>#</sup> (143 <sup>*</sup> )

(Where a high proportion of events originate from one or more sources, these are identified in the above table)

\* Figures excluding 346 events reported by one resident of St Albans. These events all involved westerly departures following the 26 Match/Detling heading, for which we are proposing to introduce a revised RNAV1 flight route to help improve track-keeping away from highly populated areas.

# It should be noted that one other individual in Harpenden has continued to report a large number of events during this quarter. In order not to cause distortion in the reported statistics and in agreement with LLACC, these events are no longer included in statistics. However, complaints received from this individual (reporting general disturbance and frequency) have still been included in the complaints total and this individual has been included in the number of complainants.

- 4.1.1 During the last quarter a total of 155 complaints relating to LLA aircraft operations (on average just under 2 complaints per 24 hours) were received by the Airfield Environment Office, compared with 160 for the same period last year, a decrease of 3%.

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

Oct 2014	65 complaints	(295 events)
Nov 2014	57 complaints	(192 events)
Dec 2014	33 complaints	(31 events)

- 4.1.2 A further 12 complaints (reporting 13 specific events) not attributable to LLA traffic were received throughout the quarter, compared to 8 (8 events) for the period October to December last year.
- 4.1.3 A total of 73 complainants reported concerns to the Airfield Environment Office between October and December 2014, compared to 92 for the same period last year. Statistics identify that 56 of the complainants (77%) contacted the airport only once during the quarter and that 23 individuals (32%) were reporting concerns for the first time.
- 4.1.4 Within the 155 complaints received during the quarter, a total of 518 events (eliciting a complaint) were listed, compared to 240 events for the same period last year. It should be noted, however, that 67% of events this quarter were reported by just one individual in St Albans.

#### 4.2 Breakdown of Complaints relating to LLA aircraft operations

The table below identifies the areas of concern reported with regard to aircraft activity during the period October to December 2014.

<u>Reported Concerns</u>	<u>No. of Complaints</u>	<u>% of Total Complaints</u>
Westerly Departures	76	49%
Easterly Arrivals	33	21.4%
Easterly Departures	15	9.7%
Westerly Arrivals	12	7.7%
General / Frequency	11	7.1%
Go Arounds	5	3.2%
Positioning Flight	2	1.3%
Helicopters	1	0.6%
<b>Total</b>	<b>155</b>	<b>100%</b>

- 4.2.1 During the last quarter 25 individuals reported a total of 56 complaints concerning aircraft noise disturbance at night (36% of overall complaints). This compares to 64 night noise complaints (from 33 individuals) received during the same period last year.

Departing aircraft accounted for 48% of the 56 night complaints and 46% involved arrivals. A further 4% of night complaints reported general disturbance. Cargo flights, primarily involving A306 aircraft and ATP postal flights were reported in 39% of night complaints.

- 4.2.2 Within the 76 complaints concerning westerly departures, 48 complaints involved aircraft on the Match/Detling flight route, 23 were of a general nature, 2 related to aircraft following the Compton heading, 2 involved aircraft on short positioning flights, following off-airways routings and 1 involved an Olney departure.

- 4.2.3 With regard to the 15 complaints attributed to easterly departures, 12 related to aircraft following the Compton flight route, 2 related to aircraft on the Match/Detling heading and 1 was of a general nature.

- 4.2.4 Whilst 30 of the 33 complaints concerning easterly arrivals reported general disturbance, 3 related specifically to aircraft following the arrivals routing from the Lorel Reporting Point.

#### 4.3 Nature of Disturbance

**Noise** was cited as a main disturbance in 94% of the 155 complaints received during the quarter. Aircraft being perceived as **off track** were reported in 34% of complaints and concerns relating to **frequency** of operations were reported in 23% of complaints received. The **low-flying** aircraft was cited in 12% of complaints.

*(It should be noted that complaints received may relate to more than one type of disturbance (i.e. noisy, low and off track) and therefore the totals given in the table below will not correspond to the number of complaints received during the quarter.)*

Disturbance	Day	Night	General *	Total
Aircraft Noise	89	45	11	<b>145</b>
Off Track	45	5	3	<b>53</b>
Frequency	30	1	4	<b>35</b>
Low-Flying	14	1	4	<b>19</b>

\* The 'General' category relates to non-specific reports of disturbance



- 4.3.1 Attached to this report are two print-outs, extrapolated from the Topsonic Aircraft Noise & Track Monitoring System, identifying samples of actual flown tracks of Luton aircraft operations (arrivals and departures up to an altitude of 12,000ft, during both easterly and westerly operations) for a typical 24 hour period within the fourth quarter of 2014.
- 4.3.2 Within the 155 complaints registered during the quarter a total of 98 complaints (63%) were clearly correlated to a specific aircraft type, although many complaints were of a general nature.

Aircraft Type	No. of correlated complaints	% of Total complaints
A320 (Wizz/Monarch/easyJet/Atlas Jet)	22	14%
A306 (MNG Cargo & DHL)	17	11%
A319 (easyJet)	15	9.7%
B737-800 (Ryanair/Thomson)	6	3.9%
B737-400 (Blue Air)	6	3.9%
ATP (Atlantic Airlines)	5	3.2%
GLF4/GLF5 (GA)	4	2.6%
<i>Other Private Aircraft</i>	<i>14</i>	<i>8.9%</i>
<i>Other Passenger Aircraft</i>	<i>6</i>	<i>3.9%</i>
<i>Other Cargo Aircraft</i>	<i>3</i>	<i>1.9%</i>
<b>Total</b>	<b>98</b>	<b>63%</b>

#### 4.4 Origin of Complaints

The chart below identifies the areas around the Airport from which complaints relating to LLA aircraft operations were received during the period October to December 2014.

<u>Location</u>	<u>Complaints</u>	<u>Events*</u> <u>(eliciting a complaint)</u>	<u>Complainants</u>	<u>Average</u> <u>Complaints per</u> <u>Complainant</u>	<u>Average</u> <u>Events per</u> <u>Complainant</u>
Aylesbury	2	0	2	1	0
Ayot St Lawrence	12	1	1	12	1
Biggleswade	1	7	1	1	7
Breachwood Green	1	4	1	1	4
Bricket Wood	1	1	1	1	1
Buntingford	1	0	1	1	0
Codicote	2	1	1	2	1
Cottered	1	0	1	1	0
Dagnall	2	3	2	1	1.5
Eaton Bray	3	3	3	1	1
Flamstead	5	7	4	1.3	1.8
Gaddesden Row	1	0	1	1	0
Great Brickhill	2	2	2	1	1
Gubblecote	1	7	1	1	7
Gustard Wood	1	0	1	1	0
Harpenden	15	9	10	1.5	0.9
Hastoe	2	2	1	2	2
Hemel Hempstead	8	10	2	4	5
Hitchin	1	0	1	1	0
Hoddesdon	1	0	1	1	0
Ivinghoe Aston	1	1	1	1	1
Kensworth	15	41	2	7.5	20.5
Kimpton	2	5	2	1	2.5
Leighton Buzzard	1	0	1	1	0
Little Gaddesden	1	0	1	1	0
Luton	9	13	3	3	4.3
Markyate	1	1	1	1	1
Meldreth	1	0	1	1	0
Pepperstock	4	10	1	4	10
Pitstone	1	0	1	1	0
Redbourn	4	5	3	1.3	1.7
Slip End	1	1	1	1	1
St Albans	31	360	7	4.4	51.4
Stevenage	2	0	2	1	0
Tewin Wood	1	3	1	1	3
Tring	1	5	1	1	5
Walkern	9	3	1	9	3
Welwyn	3	2	2	1.5	1
Wheathampstead	4	11	3	1.3	3.7
<b>Totals</b>	<b>155</b>	<b>518</b> <b>(172 **)</b>	<b>73</b>	<b>2.1</b>	<b>7.1</b> <b>(2.6 **)</b>

\* Where complaints are of a general nature (i.e. frequency), individual events may not have been specified.

\*\* Figures excluding 346 events, reported by one individual from St Albans

## 5. COMPLAINTS ADMINISTRATION

### 5.1 Method of Receipt

<u>How Received</u>	<u>% of Total Complaints</u>
E-mail*	75%
Telephone	25%

\* During the period October to December 2014 a total of 116 complaints were reported to the Airfield Environment Office by e-mail. Within this total 36% of e-mail complaints (42) were submitted via the noise complaint template on the website [www.london-luton.co.uk](http://www.london-luton.co.uk) , with the remaining 64% (74) being sent directly to [noise@ltn.aero](mailto:noise@ltn.aero).

## 6. COMMUNITY RELATIONS

The RNAV1 Consultation ended on 9<sup>th</sup> July 2014. Following the incorporation of all feedback received during the consultation process, a proposal for a revised RNAV1 departure route has been submitted to the CAA – Directorate of Airspace Policy for approval, as part of a formal Airspace Change Proposal, in accordance with CAA guidelines (CAP 725). We expect a decision early in 2015 and any future developments in this respect will be published on our website. In the meantime members may be interested to read the RNAV1 Stakeholder Consultation Report, which is available to view on our website at the following link: <http://www.london-luton.co.uk/rnav1consultation> .

At the end of November 2014 the Secretary of State for Environment, Food and Rural Affairs formally adopted the Noise Action Plan (2013–2018) for London Luton Airport. This document, together with an Executive Summary, can be viewed on our website at the following link: <http://www.london-luton.co.uk/content/1/37/noise-action-plan.html>

### 6.1 Community Visits to the Airport

Invitations are often extended to local residents and LLACC members to visit the Airfield Environment Office for a demonstration of the Aircraft Noise & Track Monitoring System, to discuss specific concerns and to view for themselves flight tracks of LLA aircraft operations in their area.

At the beginning of October 2014, the Airport welcomed a delegation from the Chiltern Countryside Group to discuss a variety of topics relation to airport operations, including the airport's Noise Action Plan and the Annual Monitoring Report.

In November 2014 the Airport invited a resident of St Albans, together with a delegation from Save Our Skies (S.O.S.), to a meeting with representatives from NATS Luton and NATS Swanwick to discuss the procedures followed by Luton departures in the St Albans area during periods of westerly operations. A subsequent visit to Swanwick was arranged for the resident in question, in order to highlight how Luton flights are integrated with other air traffic within the busy London Terminal Control Area.

The Airport also hosted a meeting at the beginning of December 2014 for a representative from LADACAN to discuss the airport's Noise Action Plan as well as other issues relating to future development plans.

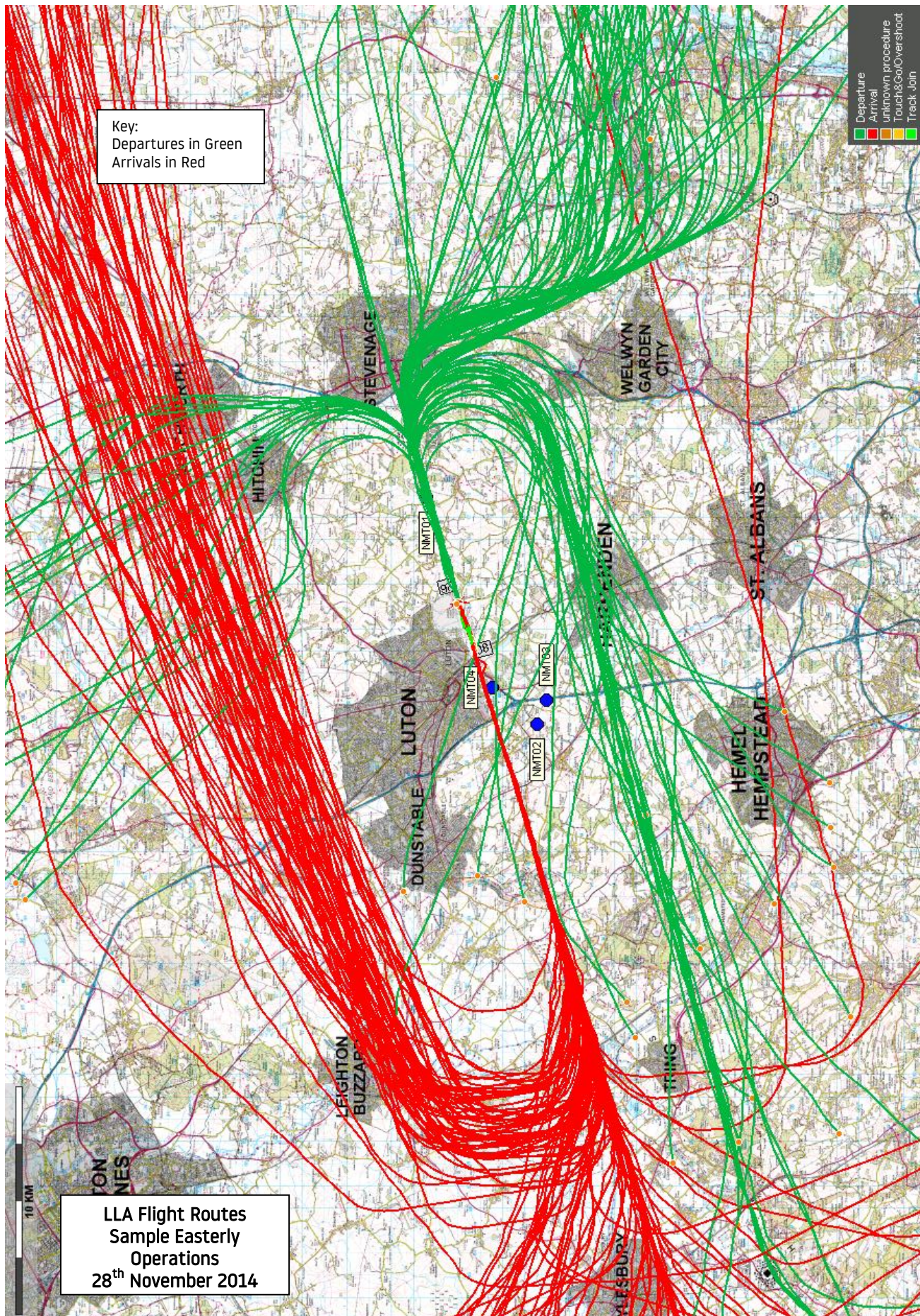
## 6.2 Airport Visits to the Community

No invitations were received by the Airfield Environment Office during the period October to December 2014.

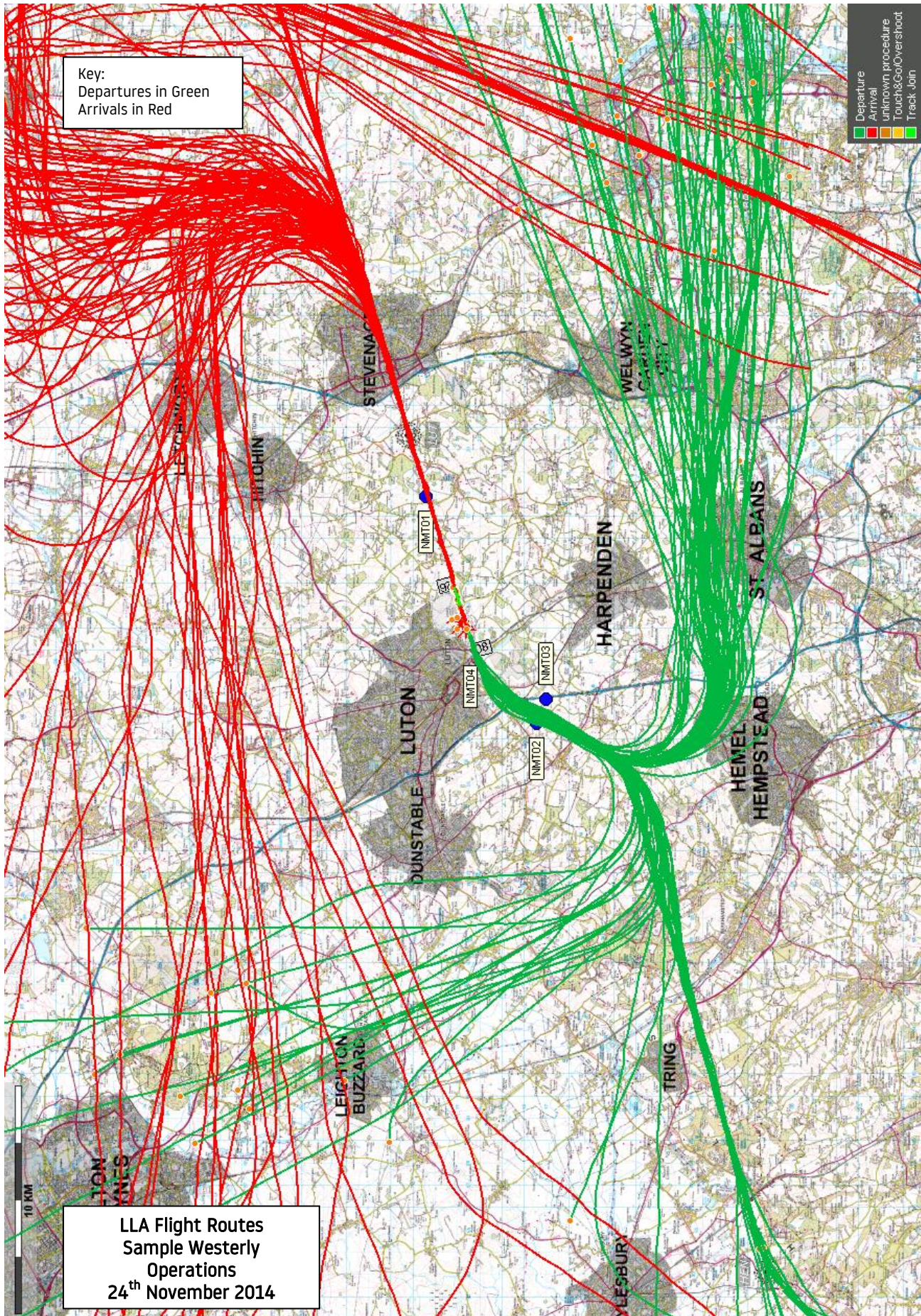
*Airfield Environment Office  
London Luton Airport Operations Ltd  
February 2015*

*Direct Dial: (01582) 395382 (24 hours)  
email: [noise@ltn.aero](mailto:noise@ltn.aero)*











## London Luton Airport

Briefing Note to NTSC – 25<sup>th</sup> March 2015

### Night Noise Contours October to December 2014

#### Introduction

Luton Airport Operations Limited (LLAOL) have retained Bickerdike Allen Partners to produce quarterly night noise contours for the third quarter of 2014 in accordance with Issue 8 of the Night Noise Policy, paragraph 3.6, which states: “*LLAOL will prepare  $L_{Aeq,8h}$  noise exposure contours for an average night in each quarter (Jan-Mar; Apr-Jun; Jul-Sep; and Oct-Dec) for the night contour period (2300-0700). These contours will commence at 48 dB(A) and show increasing values in 3 dB(A) steps and will be reported to the LLACC and/or NTSC.*”

#### Contour Production

Aircraft movement data for use in the contour production has been supplied by LLAOL. The same contour production methodology has been used as for the revised 2014 Q1, Q2 and Q3 contours. That is with the inclusion of terrain, and the latest INM software (Version 7.0d) which has been used with a validation based on measured results in 2013 at the fixed noise monitors. This methodology is very similar to that used for the 2013 Q1 to Q4 contours. The differences are described in the note A9457-N08-NW.

#### Noise Contour Results

The resulting noise contours are shown in the attached Figure A9457-NN14-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 (July – September 2014) and the equivalent period during the previous year (October – December 2013).

Contour Value (dB $L_{Aeq,8h}$ )	Contour Area (km <sup>2</sup> )		
	Oct – Dec 2013	Jul – Set 2014	Oct – Dec 2014
48	20.4	34.6	20.4
51	11.7	19.6	11.6
54	6.8	11.0	6.6
57	3.7	6.3	3.6
60	1.8	3.4	1.7
63	1.0	1.6	1.0
66	0.7	1.0	0.6
69	0.4	0.6	0.4
72	0.3	0.4	0.3
W/E Split (%)	81/19	66/34	75/25

**Table 1: Area of Night Noise Contours**

## 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 2013	Jul – Sep 2014	Oct – Dec 2014
737300	42	44	40
737400	31	87	63
737700	15	n/a	14
737800	372	765	382
757RR	44	77	47
A300-622R	123	143	131
A319-131	311	857	277
A320-211	473	1295	553
A321-232	101	189	76
A330-301	15	14	n/a
BAE146	n/a	11	n/a
CL600	80	124	111
CL601	20	20	22
CNA441	20	21	14
CNA500	12	14	18
CNA510	20	20	16
CNA525C	41	48	25
CNA55B	11	14	n/a
CNA560XL	50	48	35
CNA680	n/a	10	12
D0328	133	139	120
EMB145	54	57	37
F10062	42	53	96
GIV	66	67	68
GV	212	212	250
IA1125	n/a	10	n/a
LEAR35	45	25	26
Other	64	29	46
<b>Total</b>	<b>2397</b>	<b>4393</b>	<b>2479</b>

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



## Noise Contour Comparison

Compared with the same quarter in 2013, there has been a small increase of 3% in the total number of movements, although arrivals have increased by 9% and departures have decreased by 4%. The fleet mix is similar, although movements by the Airbus A320 have increased and movements by the Airbus A319 have decreased. The modal split has changed slightly, with 75% of aircraft operations using runway 26, compared to 81% of operations in the fourth quarter of 2013. The area within the 48 dB(A) noise contour hasn't changed compared to the same quarter last year, despite the increase in overall movements. This is largely due to the increase in departure movements. As in previous years, the number of movements, and therefore the contour area, has significantly decreased compared to the previous quarter (July – September 2014).

**Duncan Rogers**

**for Bickerdike Allen Partners**

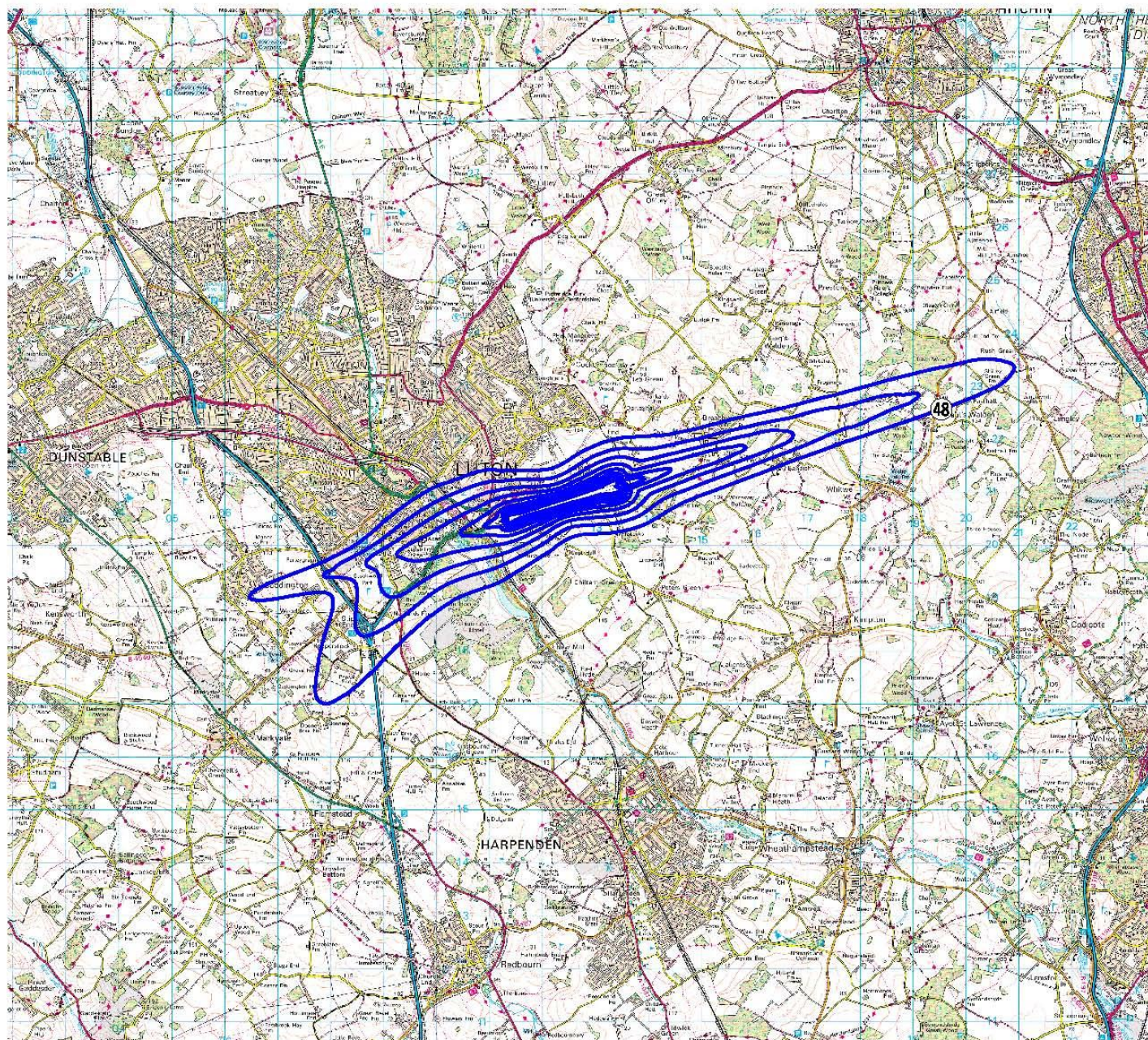
**David Charles**

**Associate**

**Peter Henson**

**Partner**





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#### LEGEND:

Noise Contours,  
48 to 72 dB  $L_{Aeq,9h}$  in 3 dB steps

#### REVISIONS

**Bickerdike  
Allen  
Partners**  
Architecture  
Acoustics  
Technology

121 Salisbury Road, London, NW6 6RG  
Email: mail@bickerdikeallen.com  
www.bickerdikeallen.com

T: 0207 625 4411  
F: 0207 625 0250

**London Luton Airport  
Regular Contouring**

**Airborne Aircraft Noise Contours  
Oct-Dec 2014 Average Night time**

DRAWN: DR

CHECKED: NW

DATE: 18/02/2015

SCALE: 1:100000@A4

FIGURE No:

**A9457/NN14/Q4**