

## **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 2008.

### **2. AIRCRAFT MOVEMENTS / PASSENGER STATISTICS**

#### **2.1 Total Aircraft Movements**

There were a total of 25,065 aircraft movements during the quarter (compared with 28,815 for the same period in 2007), a decrease of 13%. This resulted in an average 272 movements per 24 hours (in comparison with 317 last year).

A breakdown of these movements is shown below:

	<b>Oct 2008</b>	<b>Nov 2008</b>	<b>Dec 2008</b>	<b>Total %</b>	<b>QTR Total</b>
Cargo	227	217	179	2.4%	<b>623</b>
Passenger	7,592	5,639	5,795	76%	<b>19,026</b>
Other Positioning	392	319	341	4.2%	<b>1,052</b>
Stansted Positioning	33	29	19	0.3%	<b>81</b>
Flying Club	0	0	0	0%	<b>0</b>
Military	0	0	0	0%	<b>0</b>
Official	7	4	6	0.1%	<b>17</b>
Other Non-Commercial*	49	43	34	0.5%	<b>126</b>
General Aviation**	1,612	1,321	1,153	16.3%	<b>4,086</b>
Test & Training	16	19	19	0.2%	<b>54</b>
<b>Total</b>	<b>9,928</b>	<b>7,591</b>	<b>7,546</b>	<b>100%</b>	<b>25,065</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 2,166,139 passengers passed through LLA during the period October to December 2008 (compared with 2,262,516 for the same period last year), a decrease of 4%. This equates to an average 23,545 passengers per 24 hours (compared to 24,593 during the fourth quarter last year).

#### **2.3 Runway Usage**

The runway usage split during this period was 24% easterly and 76% westerly (compared with 31% / 69% for the same quarter last year). The breakdown of these statistics, on a monthly basis, is as follows:

Oct 2008	10% easterly / 90% westerly
Nov 2008	34% easterly / 66% westerly
Dec 2008	27% easterly / 73% westerly

## 2.4 Day / Night Ratio of Movements

There were 1,734 night operations during the quarter (compared to 2,160 for the fourth quarter 2007), an average 19 movements per night (compared with 24 last year). Arriving aircraft accounted for 73% 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 Bureau Veritas in the night contour figures as the 8 hour Leq contour calculation period extends between 23:00 hrs and 07:00 hrs, 7 days per week. The figures above are for the night period, as defined in the Night Noise Policy for noise violation purposes, 23:00 hrs until 06:00 hrs, Mon-Sat and until 07:00 hrs 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 23:00 hrs and 06:00 hrs, Mon-Sat and until 07:00 hrs on Sunday.

		Clacton*		Compton		Olney		Other**		Heli	Total
		08	26	08	26	08	26	08	26		
Oct	Day	172	1,604	199	1,837	100	763	9	58	44	4,786
	Night	11	58	10	65	5	31	0	3	1	184
	<b>Total</b>	<b>183</b>	<b>1,662</b>	<b>209</b>	<b>1,902</b>	<b>105</b>	<b>794</b>	<b>9</b>	<b>61</b>	<b>45</b>	<b>4,970</b>
Nov	Day	465	986	459	915	217	508	22	36	27	3,635
	Night	25	44	22	35	6	12	1	3	4	152
	<b>Total</b>	<b>490</b>	<b>1,030</b>	<b>481</b>	<b>950</b>	<b>223</b>	<b>520</b>	<b>23</b>	<b>39</b>	<b>31</b>	<b>3,787</b>
Dec	Day	384	1,087	400	1,007	187	524	11	23	30	3,653
	Night	11	42	10	47	3	19	0	0	4	136
	<b>Total</b>	<b>395</b>	<b>1,129</b>	<b>410</b>	<b>1,054</b>	<b>190</b>	<b>543</b>	<b>11</b>	<b>23</b>	<b>34</b>	<b>3,789</b>
<b>Total</b>		<b>1,068</b>	<b>3,821</b>	<b>1,100</b>	<b>3,907</b>	<b>518</b>	<b>1,857</b>	<b>43</b>	<b>123</b>	<b>110</b>	<b>12,546</b>

\* Clacton/Dover/Detling departures have been merged as the immediate flight routes follow the same path.

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

## 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 23:00 hrs and 06:00 hrs, Mon-Sat and until 07:00 hrs on Sunday. This report also includes percentage figures for flights that have achieved a Continuous Descent Approach (CDA) which require a section of level flight no greater than 2.5Nm following the descent from 5000ft altitude.

		Arrivals				CDA		
		08	26	Heli	Total	08 (%)	26 (%)	Total (%)
<b>Oct</b>	Day	437	3,841	45	<b>4,323</b>	91	86	<b>86</b>
	Night	86	549	0	<b>635</b>	74	75	<b>75</b>
	<b>Total</b>	<b>523</b>	<b>4,390</b>	<b>45</b>	<b>4,958</b>	<b>88</b>	<b>84</b>	<b>85</b>
<b>Nov</b>	Day	1,214	2,235	29	<b>3,478</b>	89	81	<b>84</b>
	Night	119	205	2	<b>326</b>	76	68	<b>69</b>
	<b>Total</b>	<b>1,333</b>	<b>2,440</b>	<b>31</b>	<b>3,804</b>	<b>87</b>	<b>80</b>	<b>83</b>
<b>Dec</b>	Day	981	2,441	34	<b>3,456</b>	91	81	<b>84</b>
	Night	56	245	0	<b>301</b>	78	65	<b>68</b>
	<b>Total</b>	<b>1,037</b>	<b>2,686</b>	<b>34</b>	<b>3,757</b>	<b>90</b>	<b>79</b>	<b>83</b>
<b>Total</b>		<b>2,893</b>	<b>9,516</b>	<b>110</b>	<b>12,519</b>	<b>88</b>	<b>82</b>	<b>84</b>

### 3. NOISE MONITORING DATA

#### 3.1 Daytime Noise Levels (October to December 2008)

The following table identifies daytime noise levels recorded by departing aircraft at the fixed noise monitoring terminals.

*(Any aircraft exceeding the Daytime Noise Violation Limit of 94dB(A), between 06:00 hrs and 22:59 hrs Monday to Saturday and 07:00 hrs to 22:59 hrs 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	258	990	1,895	478	37	3	1	3	0	0	<b>3,665</b>
Nov	366	827	1,315	459	54	7	0	0	0	0	<b>3,028</b>
Dec	386	666	1,147	620	55	3	0	1	0	0	<b>2,878</b>
% Total	11%	26%	46%	16%	1.5%	0.1%	0.0%	0%	0%	0%	100%
<b>Total</b>	<b>1,010</b>	<b>2,483</b>	<b>4,357</b>	<b>1,557</b>	<b>146</b>	<b>13</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>9,571</b>

##### 3.1.1 Daytime Noise Violations (October to December 2008)

There were no daytime noise violations during the quarter.

#### 3.2 Night Noise Levels (October to December 2008)

The following table identifies the night noise levels recorded by departing aircraft at the fixed noise monitor terminals.

*(Any aircraft exceeding the Night Noise Violation Limit of 85dB(A), between 23:00 hrs and 06:00 hrs Monday to Saturday and 23:00 hrs to 07:00 hrs 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	23	32	46	15	6	0	0	0	0	0	<b>122</b>
Nov	23	31	27	18	8	2	0	0	0	0	<b>109</b>
Dec	20	11	28	13	9	3	1	0	0	0	<b>85</b>
% Total	21%	23%	32%	15%	7%	1.6%	0%	0%	0%	0%	100%
<b>Total</b>	<b>66</b>	<b>74</b>	<b>101</b>	<b>46</b>	<b>23</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>316</b>

##### 3.2.1 Night Noise Violations (October to December 2008)

Date / Time (Local)	Aircraft Type	Noise Level	Penalty
01/12/2008 (01:52 hrs)	A300 (MNG Cargo)	85.8 dB(A)	300% of runway charge

### 3.2.2 Night Noise Contours (October to December 2008)

Night contours for the 4<sup>th</sup> Quarter 2008 are attached at the end of this report.

## 4. COMPLAINTS

### 4.1 Total Complaints relating to LLA aircraft operations

	4 <sup>th</sup> QTR 2007	4 <sup>th</sup> QTR 2008
Total No. of Complaints relating to LLA aircraft operations	170	110
No. of Complainants	78	57
No. of Events (eliciting a complaint)	1,039 (463*)	275
<i>Average No. of Complaints per Complainant</i>	2.2	1.9
<i>Average No. of Events per Complainant</i>	13.3 (5.9*)	4.8
<i>Average No. of Events per Complaint</i>	6.1 (2.7*)	2.5
<i>No. of Aircraft Movements per Complaint</i>	169	228
<i>No. of Aircraft Movements per Event</i>	28 (62*)	91

\* Figures excluding 576 events, reported by 2 individuals in the Harpenden area

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

4.1.1 During the last quarter a total of 110 complaints (on average 1 complaint per 24 hours) relating to LLA aircraft operations were received by the Airfield Environment Office, compared with 170 for the same period last year, a decrease of 35%. It should be noted that a total of 220 helicopter operations during the quarter (on average 1 helicopter rotation at the airport per day) resulted in 18 complaints (involving 95 events), 16% of total complaints during the quarter, compared to the same quarter last year which generated 30 complaints (193 events) a reduction of 40% following the introduction of new helicopter operating procedures at the end of November 2007.

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

Oct 2008	48 complaints	(99 events)
Nov 2008	29 complaints	(101 events)
Dec 2008	33 complaints	(87 events)

- 4.1.2 A further 48 complaints (186 events) not attributable to LLA traffic were received throughout the quarter, compared to 67 (255 events) for the period October to December last year. 23 of these complaints (145 events) related to non-LLA helicopters transiting the airspace.
- 4.1.3 A total of 57 complainants reported concerns to the Airfield Environment Office between October and December 2008, in comparison to 78 for the same period last year, a decrease of 27%. Statistics identify that 38 of the complainants (67%) contacted the airport only once during the quarter and that 11 individuals (19%) were reporting concerns for the first time.
- 4.1.4 Within the 110 complaints received during the quarter, a total of 275 events (eliciting a complaint) were listed, compared to 1,039 events for the same period last year, a decrease of 73%.

#### 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 2008.

<u>Reported Concerns</u>	<u>No. of Complaints</u>	<u>% of Total Complaints</u>
Westerly Departures	46	42%
General / Frequency	22	20%
Helicopter Operations	19	17%
Easterly Departures	8	7%
Easterly Arrivals	7	6%
Westerly Arrivals	5	5%
Ground Based Noise	1	1%
Engine Ground Runs	1	1%
Alleged Air Prox	1	1%
<b>Total</b>	<b>110</b>	<b>100%</b>

4.2.1 During the quarter a total of 41 complaints reported night disturbance (37% of overall complaints), compared to 48 for the period October to December last year, a decrease of 15%.

4.2.2 Within the 46 complaints concerning westerly departures 21 were of a general nature, whilst 16 related to specific aircraft on the Clacton/Dover/Detling route and 9 on the Compton route.

4.2.3 With regard to the 7 complaints attributed to easterly departures, 1 was of a general nature and 6 related to aircraft following the Compton route.

### 4.3 Nature of Disturbance

4.3.1 **Noise** was cited as a main disturbance in 93% of complaints. Aircraft being perceived as **off track** were reported in 18% of complaints and concerns relating to aircraft flying **low** were cited in 14% of complaints. The frequency of operations was reported in 9% 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.)*

<b>Disturbance</b>	<b>Day</b>	<b>Night</b>	<b>General *</b>	<b>Total</b>
Aircraft Noise	61	20	21	<b>102</b>
Off Track	16	0	4	<b>20</b>
Low-Flying	15	0	0	<b>15</b>
Frequency	8	1	1	<b>10</b>

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

4.3.2 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 during both easterly and westerly operations) for a typical 24 hour period within the fourth quarter of 2008.

4.3.3 Within the 110 complaints registered during the quarter a total of 72 complaints (65%) were clearly correlated to a specific aircraft type, although many complaints were of a general nature.

<b>Aircraft Type</b>	<b>No. of correlated complaints</b>	<b>% of Total complaints</b>
A300 (MNG Cargo & DHL)	21	19%
Helicopters	19	17%
A320 (Wizz/Monarch)	8	7%
B737-700 (easyJet/Sky Europe)	4	4%
GLF2/GLF3 Private Jets	4	4%
B738-800 (Ryanair/Thomsonfly)	3	3%
ATP (Atlantic Airways)	3	3%
C130 Hercules (Military)	1	1%
<i>Other Passenger Aircraft</i>	5	5%
<i>Other Private Operations</i>	3	3%
<i>Other Cargo Operations</i>	1	1%
<b>Total</b>	<b>72</b>	<b>65%</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 2008.

Location	Complaints	Events* (eliciting a complaint)	Complainants	Average Complaints per Complainant	Average Events per Complainant
Ayot St Lawrence	4	30	1	4	30
Bendish	1	0	1	1	0
Berkhamsted	1	1	1	1	1
Bierton	1	2	1	1	2
Breachwood Green	1	1	1	1	1
Caddington	4	4	4	1	1
Clophill	1	0	1	1	0
Codicote	1	1	1	1	1
Dagnall	1	1	1	1	1
Eaton Bray	1	1	1	1	1
Flamstead	3	17	2	1.5	8.5
Harpenden	33	95	9	3.7	10.5
Hemel Hempstead	9	53	1	9	53
Kensworth	1	2	1	1	2
Kimpton	1	1	1	1	1
Kinsbourne Green	5	10	2	2.5	5
Little Gaddesden	4	5	2	2	2.5
Luton	8	11	5	1.6	2.2
Markyate	2	0	2	1	0
Pepperstock	4	6	2	2	3
Princes Risborough	1	0	1	1	0
Ringshall	1	1	1	1	1
Rushden	1	1	1	1	1
Sandon	1	0	1	1	0
Slip End	3	4	1	3	4
St Albans	1	1	1	1	1
The Lee	4	4	2	2	2
Tring	2	18	1	2	18
Whaddon	1	0	1	1	0
Wheathampstead	6	3	4	1.5	0.75
Whitwell	2	1	2	1	1
Wigginton	1	1	1	1	1
<b>Totals</b>	<b>110</b>	<b>275</b>	<b>57</b>	<b>1.9</b>	<b>4.8</b>

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

## 5. COMPLAINTS ADMINISTRATION

### 5.1 Method of Receipt

<u>How Received</u>	<u>% of Total Complaints</u>
E-mail*	44.5%
Telephone	45.5%
Fax	6.5%
Letter	3.5%

\* During the period October to December 2008 a total of 49 complaints were reported to the Airfield Environment Office by e-mail. Within this total 67% (33) were sent directly to [noise@ltn.aero](mailto:noise@ltn.aero), with the remaining 33% of e-mail complaints (16) being sent via the noise complaint template on the website [www.london-luton.co.uk](http://www.london-luton.co.uk).

## 6. COMMUNITY RELATIONS

### 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.

Although offers were made on a number of occasions during this quarter no invitations to visit the airport were accepted.

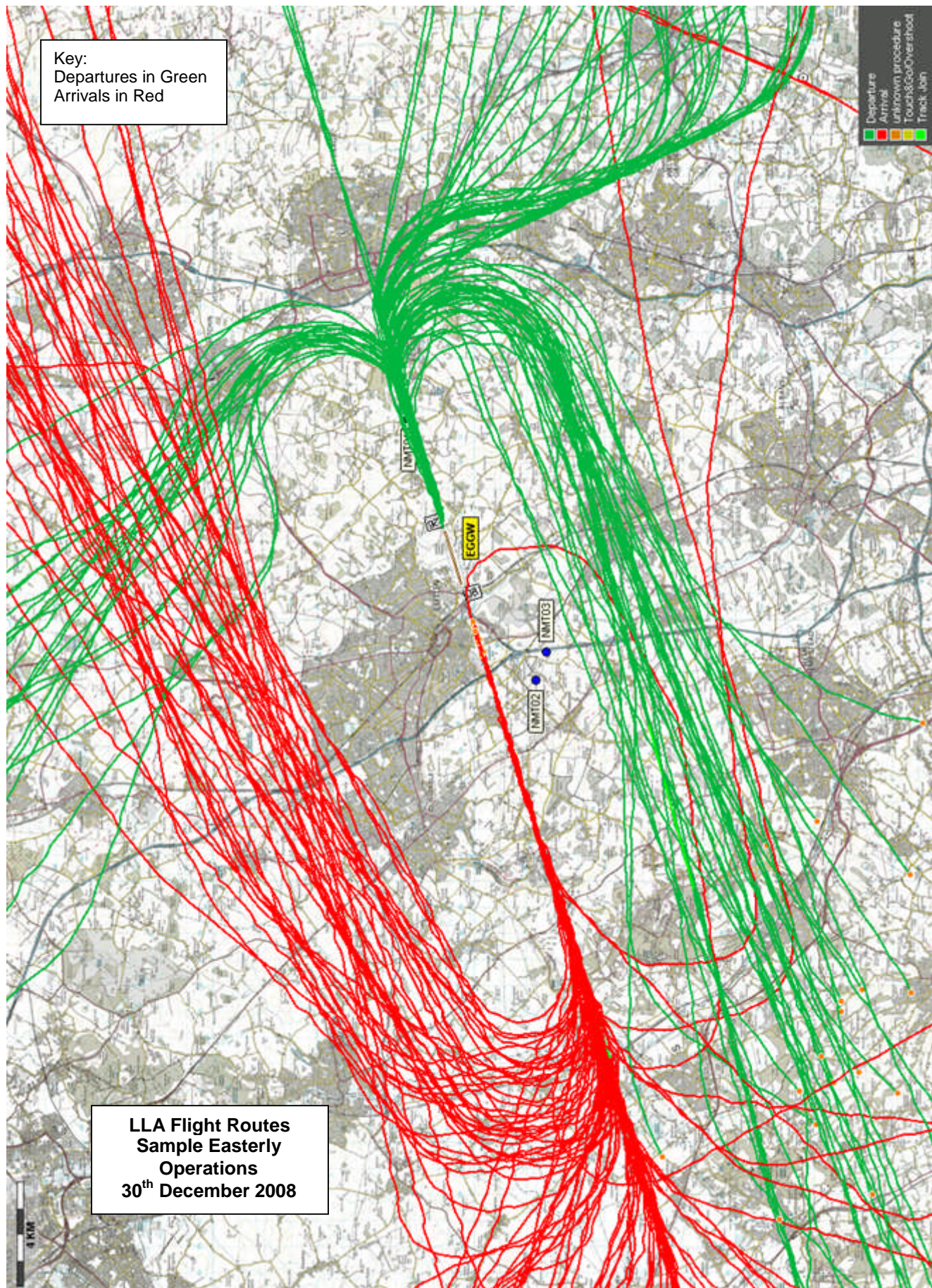
However, in late November the Airfield Environment Office did welcome a local student, giving an insight into the work involved within the department.

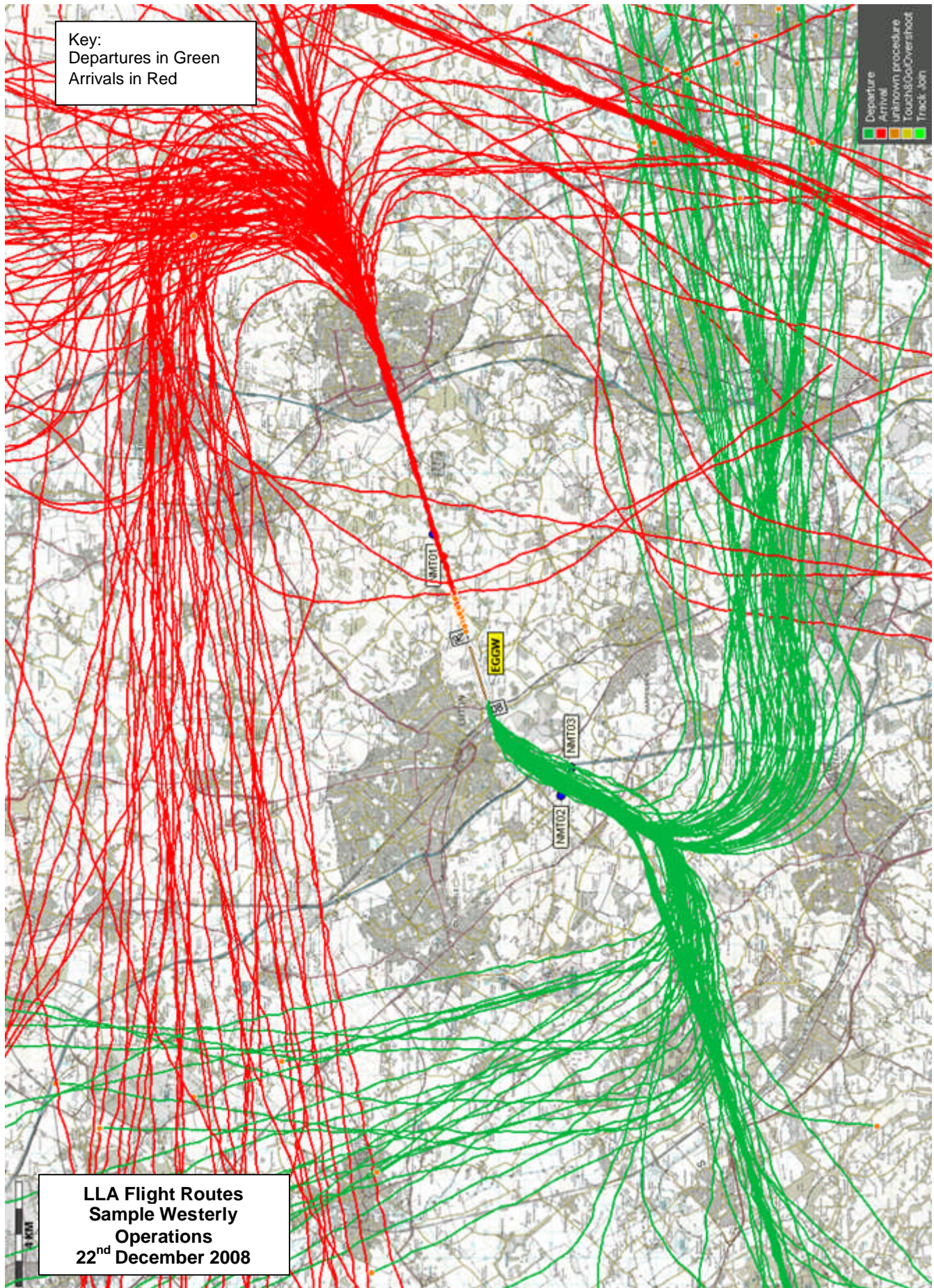
#### 6.2.1 Airport Visits to the Community

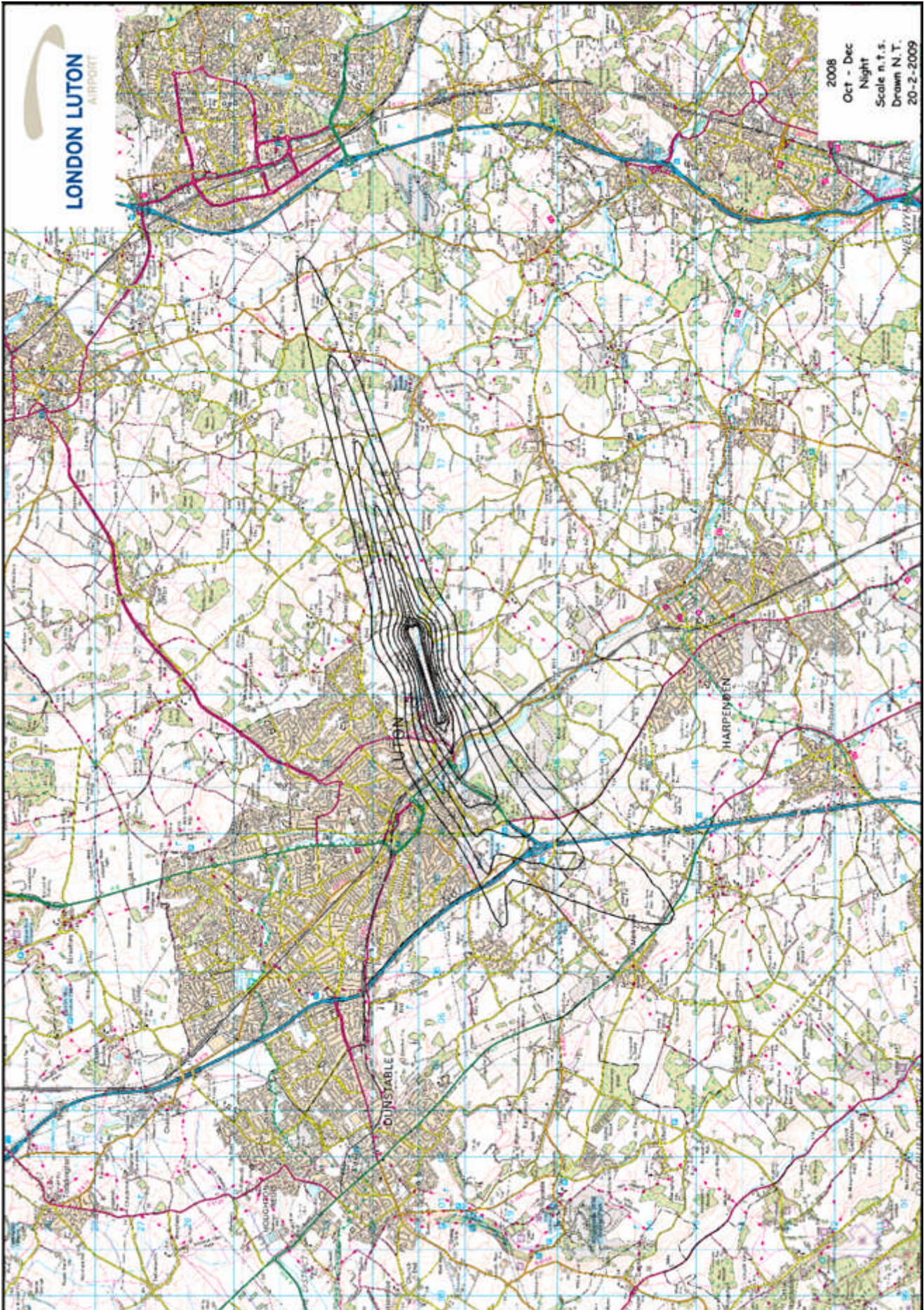
The Airport was invited to attend, in an advisory capacity, three Luton Borough Council Area meetings/Ward meetings during the early part of October 2008. Airport staff were available prior to these meetings to raise awareness of and to answer any questions concerning the recently launched London Luton Airport Community Engagement Strategy. A representative from the Airfield Environment Office was also available to address any specific queries concerning the impact of general aircraft operations.

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**Briefing Note to NTSC – 9<sup>th</sup> March 2009**

**1 Night Noise Contours  
October - December 2008**

- 1.0 The Night Jet Policy, which came effective from 1<sup>st</sup> April 2002 undertook at Section 9.0 to provide noise contour information for an average night for each quarter. The results for October - December 2008 are shown in Table 1 below and are compared with the values for the previous quarter and the equivalent period last year, namely, October - December 2007.
- 2.0 The 2008 figures have been produced using INM 7.0 and revised departure tracks, following the calibration work carried out last year. The values for October - December 2007 shown in the table below were produced using the previous departure tracks and INM 6.2a.
- 3.0 The Briefing Note to the NTSC, dated 10<sup>th</sup> March 2008 described these changes. Roughly, these revisions account for an increase in contour area (48 dB(A)) of about 12%. This needs to be borne in mind when considering the results below.

**Table 1  
Night Noise Contour Results**

<b>L<sub>Aeq</sub>, 8hr Night</b>	<b>Oct - Dec 2007</b>	<b>Jul – Sep 2008</b>	<b>Oct - Dec 2008</b>
>72	0.4	0.4	0.3
>69	0.6	0.6	0.5
>66	0.9	1.0	0.7
>63	1.5	1.8	1.2
>60	2.6	3.5	2.3
>57	4.7	6.6	4.3
>54	8.5	12.0	7.9
>51	15.0	21.4	13.9
>48	25.9	37.9	25.0
W/E Split (%)	67/33	77/23	80/20

4.0 Table 2 below shows the total movements by aircraft type, supplied by LLAO, for the relevant period, upon which the contour results are based:

**Table 2**  
**Night Movements by Aircraft Type**

<b>Aircraft Type</b>	<b>Oct – Dec 2007</b>	<b>Jul – Sep 2008</b>	<b>Oct – Dec 2008</b>
727100	0	5	0
737300	11	64	28
737400	0	0	0
737700	797	1504	630
737800	584	854	543
737200	0	0	0
757RR	82	114	76
A300	193	194	169
A320	210	276	95
A321	153	202	136
A319	27	77	105
767300	0	7	5
767JT9	0	0	5
CL600	167	185	120
CNA500	25	54	28
GIV	96	81	69
HS748A	211	236	146
LEAR35	206	196	133
MU3001	102	51	55
SD330	38	48	6
Other	204	182	196
<b>Total Movements</b>	<b>3116</b>	<b>4330</b>	<b>2545</b>

5.0 In order to take account of the changes in modelling methodology, Table 3 shows the results for the 48 dB(A) contour area but with the October - December 2007 results adjusted (by increasing the area by 12%).

**Table 3**  
**Night Noise Contour Results**

<b>L<sub>Aeq</sub>, 8hr Night</b>	<b>October - December 2007 (adjusted for methodology difference)</b>	<b>Jul - Sep 2008</b>	<b>Oct - Dec 2008</b>
>48	29.0	37.9	25.0

6.0 It can be seen from Table 2 that there has been a reduction in the number of movements in the period October - December 2008, compared with the same period last year (about 18%). Consequently, the area (within the 48 dB(A) contour) has decreased by 4 km<sup>2</sup> (i.e. down by about 14%). There always seems to be a reduction in the number of movements in this quarter compared with the previous quarter. This year the number of movements has reduced by 1785 (just over 41%) with a reduction in contour area of 34%.

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19<sup>th</sup> February 2009

Doc Ref: st/09/15