



# Annual Monitoring Report 2008



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## *Executive Summary*

### **Activity**

London Luton Airport served just under 10.2 million passengers in 2008, 2.5% more than in 2007. This indicates a lower rate of passenger growth compared to 8% in 2007, but similar to the 3% growth in 2006. The services included 15 new routes resulting in a total of 93 destinations during 2008, an increase of 7% year on year. The aircraft movements consisted of 87,574 passenger movements, an increase of 3% over 2007, out of the total activity in 2008 of 117,861 movements. The most common aircraft type was the Boeing 737, used for over 60% of passenger aircraft movements.

The cargo carried at the Airport increased from 38,652 tonnes in 2007 to 40,992 in 2008. Much of this cargo was carried by the Airbus A300 freighter whose movements decreased from 1,869 in 2007 to 1,714 in 2008.

### **Operational Matters**

The mode of operation at the airport consisted, as usual, of a predominance of westerly operations, with landings from the direction of Stevenage and departures towards the M1 for 71% of the time. The proportion of movements during the night period as opposed to daytime decreased to 8%, compared to 9% in 2007. No modification to the departure routes occurred, with the busiest departure route being Compton, towards the Tring area.

The introduction of three additional Visual Reference Points (VRPs) south of the Airport in November 2007 proved extremely successful, with helicopters operating to and from the Airport now avoiding built-up areas wherever possible. This resulted in a 66% reduction in the number of helicopter complaints during 2008.

The Airport continued to develop the use of Continuous Descent Approaches (CDAs) at the Airport, and has provided to the London Luton Airport Consultative Committee (LLACC) and its sub-committee detailed statistics on CDA achievement. The overall achievement rate increased from 88% in 2007 to 90% in 2008 on Runway 08 (landing from the west) and from 80% in 2007 to 82% in 2008 on Runway 26 (landing from the east).

### **Developments**

The Airport withdrew the draft Master Plan (issued for consultation in October 2005) in July 2007 and announced its intention to focus on making the most of the existing airport site. At that time the Airport advised that they would not be pursuing further, the option of a full length replacement runway 950 metres to the south of the existing runway.

During 2008, the notable physical developments undertaken by London Luton Airport Operations Ltd (LLAOL) on the airport site were as follows:-

- Erection of a single storey modular building within the Airport Drop Off Zone
- Certificate of lawfulness for the siting of a single storey modular building and relocation of existing portable building adjacent to the fire station
- Works to the roundabout, drop off zone and bus set down area, of the Central Terminal Area. This work will continue into 2009.

Other development on or adjacent to the site but carried out by third parties included:-

- Installation of an external storage tank to service the existing water treatment plant at IBC Vehicles Limited, Trade Effluent Plant. (This is not airport related but lies close to the Airport Boundary).
- Change of use of building from class B2 (general industrial) to B2 and B8 (storage and distribution at Cargo 10 Airport Way).

## Planning

The adopted Luton Local Plan (March 2006) includes policies LLA1, LLA2, LLA3 dealing with growth and development at London Luton Airport. Policy LLA1 supports development at the Airport subject to 6 provisions, provision (iv) states that the development shall result in an aircraft noise impact that is below the 1999 level.

These policies are the statutory policies regulating growth of London Luton Airport to 2011. However, under the Planning & Compulsory Act 2004 introducing the new planning system, the above Local Plan Policies could only be saved for a period of three years from the date of adoption (March 2006). Therefore, after March 2009 these policies will expire unless the Borough Council nominates to save them and providing they comply with criteria set out in PPS12 and/or have particular local importance and relevance.

At the Joint Planning Committee on 19th September 2008, the Borough Council reported on the policies it proposed to save which included policies LLA1, LLA2 and LLA4 but not policy LLA3 (as this repeats the government Circular on airport safety zones). The list of policies that should be saved and those that should not be saved with criteria and reasons was then submitted to the Secretary of State who will make a decision and issue a formal 'saving' order before the end of March 2009.

Furthermore, the Local Plan will be replaced by the emerging Local Development Framework (LDF) and an up to date Core Strategy for the Growth Area (which includes Luton), identified in the adopted Milton Keynes-South Midlands Sub Regional Strategy (March 2005) and the complementary Regional Spatial Strategy RSS14 (May 2008). These regional and sub regional plans provide a policy base for development up to 2031 and reflect the governments policy stance on aviation.

## Noise

Aircraft noise in 2008 has been monitored continuously at the three fixed noise monitors and the Airport's noise contours regularly updated. The individual noise of each departure has been compared to the daytime and night-time noise violation limits; no violations occurred during daytime, with two violations at night during 2008. One related to an ad hoc MD83 charter flight and the other to an A300 cargo flight. Both operators were fined accordingly. The continuous monitoring indicates that the majority of aircraft operated with individual maximum noise levels well below the current violation limits.

The Airport has to operate within limits on the area of the day and night contours, set by planning conditions in 1998 when the new terminal was approved.

	Daytime (57dB $L_{Aeq,16h}$ ) in $km^2$	Night-time (48 dB $L_{Aeq,8h}$ ) in $km^2$
NOT TO BE EXCEEDED	31.5	85.0
NOISE REDUCTION ACTION PLAN TO BE IMPLEMENTED	19.6	60.6
ACTUAL 2008	16.6	38.5

In essence the Airport is operating well within its planning limits. For 2008 an updated version of the INM noise model (version 7.0) was used to derive the contours and it was indicated that this would systematically produce larger contours for the same input data compared with INM version 6.2a. However, on a like for like basis (using INM version 7.0), the daytime contour has reduced by about 2.5% and the night-time contour has increased by 4% (See section 6.1).

The population within these contours for 2008 is 5,295 (4,431 in 2007) for daytime noise greater or equal to 57 dB  $L_{Aeq,16h}$  and 12,859 (9,588 in 2007) for night-time noise greater or equal to 48 dB  $L_{Aeq,8h}$ . Those population figures indicate, when compared with 2007, an increase in both the daytime and night-time population, although it should be noted that these population counts pertain to INM 6.2a in 2007 and 7.0 in 2008.

## **Complaints**

During 2008 a total of 1,174 complaints relating to LLA aircraft operations were received, down from 1,213 in 2007.

The number of complainants increased from 465 in 2007 to 544 during 2008, a significant number of which contacted the airport during the period incorporating the NATS TCN Consultation on proposed new flightpaths in the London area. The number of complainants was greatest during May 2008 which also coincided with an exceptionally long period of easterly operations (dictated primarily by wind direction).

Complainants were located in a wide area around the Airport, with a reduction in complainants from Harpenden (down from 149 in 2007 to 66 in 2008) and a similar number to last year from Luton. In other areas, such as Caddington, Walkern, Wheathampstead and Whitwell there were significant increases in the number of complainants, due primarily to concerns regarding NATS TCN Consultation proposals.

The number of specific aircraft events mentioned by complainants decreased from 5,480 in 2007 to 3,175 in 2008, although it is worth noting that during 2007 the total included 1,525 events reported by one individual in Harpenden.

Despite an overall reduction in helicopter complaints and a decrease in the number of Luton helicopter operations (from 1,957 in 2007 to 1,286 in 2008) the aircraft operations for which most complaints arose related to helicopters and A300 cargo flights.

## **Employment**

For this year the survey response rate from businesses related to the Airport was 73%. Out of a total of 99 companies surveyed, 72 valid responses were received.

It has been assessed that around 7,900 people work at or around the Airport site. From data provided by those companies that responded this year it is estimated that 70% of employees live in Luton, and of the jobs 81% are full time, and the male to female proportion of jobs are split males (61%) and females (39%).

## **Surface Access**

Road traffic volumes in the summer decreased on all of the 7 monitored roads, although Airport Way traffic increased marginally for the 24 hour 7 day week flow. The winter traffic counts have also decreased or stabilised with the particular exception of Frank Lester Way, which increased while Vauxhall Way traffic (north and south) only increased over the 12 hour 5 day week. The changes may reflect continued disruption caused by M1 widening works and the East Luton corridor, although there has been an observed reduction in traffic across the Borough in recent years. The number of scheduled train services has increased over the summer and, in particular, the winter timetables attributed to increased East Midland trains serving Luton Parkway and First Capital Connect peak services. National bus services increased from 1,960 services per week in the summer of 2007 to 2,044 in 2008. However, the winter season saw decreased services to central London. Local services also decreased significantly, except for a marginal summer increase for Luton railway station. Airport to airport services increased for both summer and winter seasons particularly to Stansted. Staff car parking capacity has remained unchanged during 2007. The total car parking facilities of over 11,500 spaces on site, and around 4,000 on off site parks is similar to that available last year.



## **Conclusion**

In 2008 London Luton Airport had a 3% increase in passengers, with a 2% decrease in aircraft movements. The Airport served just over 10 million passengers and carried just under 41,000 tonnes of cargo (an increase of 6% on last year). During the year there were a total of 15 new destinations served (nett total of 13 as a result of the collapse of XL Airways). The Airport has continued to provide major employment for the area and just under 8,000 people are estimated to work at or around the Airport site.

During 2008 there has been a reduction in both the number of complaints reporting disturbance from aircraft operations and in the number of aircraft events eliciting a complaint. However there has been an increase in the number of complainants, a significant number of which contacted the airport during the period incorporating the NATS TCN Consultation on proposed new flightpaths in the London area.

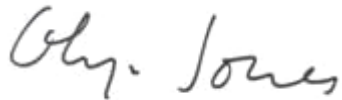
On a like for like basis (using INM version 7.0 calculations for both 2007 and 2008) there has been a small reduction of about 2.5% in the daytime contour area from 2007 (reflecting a decrease in the total number of movements that occurred in that period) but a small increase of 4% in the night contour area, despite a slight decrease in movements. This has been attributed to there being a slightly greater proportion of larger aircraft in the fleet during the summer of 2008 compared with the summer of 2007. The population affected has increased to nearly 5,300 people during the daytime and just under 13,000 people at night. However, the Airport is still operating well within the limits set by the planning permission for the terminal resolved in February 1998.

## **1. Background**

- 1.1. As a result of the Airport Act 1986, Luton Borough Council (LBC) formed a Limited Company, London Luton Airport Ltd, as freeholders and operators of the Airport in April 1987. In August of 1998, LLA Ltd then granted a 30 year agreement to a private consortium, known as London Luton Airport Operations Ltd (LLAOL), as the licensed managers and operators.
- 1.2. This report is the 30<sup>th</sup> Annual Monitoring Report (AMR) and unless otherwise stated, looks at the calendar year 2008. It has been produced jointly by LBC and LLAOL.
- 1.3. In 1978, LBC in accepting the conclusions of the report of the Council's Chief Executive, entitled "Luton Airport, A Plan for the Future", affirmed the importance of monitoring in connection with noise levels, employment and housing and the effect on the highway system and placed on record their willingness to discuss the results of such monitoring with interested bodies and in particular with the London Luton Airport Consultative Committee (LLACC). The arrangements for monitoring were approved in June 1979 and were reaffirmed in the Borough Council's 1985 Policy Document "Towards 5 million Passengers".
- 1.4. The results are also used to monitor the performance of the Borough of Luton Local Plan approved in 1997 - now superseded by the adopted Borough of Luton Local Plan March 2006 - and constitute one of the material considerations when the Borough Council considers development proposals or determines planning applications for further development of the Airport.
- 1.5. Any monitoring system of this nature will have minor inaccuracies that can only be resolved as the monitoring arrangements evolve. Where more accurate figures for previous years have become available, these have been incorporated in the Report. Where additional information for previous years has become available this has also been included in the Report. Where data is no longer available then this is also identified with reasons.
- 1.6. The Leq contours are produced by Bureau Veritas Acoustics & Vibration for LLAOL using the FAA INM (Integrated Noise Model) model and LLAOL provide the contour outputs to LBC.
- 1.7. This is the 22<sup>nd</sup> Annual Monitoring Report to be prepared since LLA became a Limited Company. All operational statistics are saved directly from the Airport's electronic monitoring systems unless otherwise stated. Employment and surface access data is compiled from LBC's monitoring systems.
- 1.8. The INM model for calculating the Leq noise contours was proposed by LLAOL after reporting the benefits of this model to the Noise & Track Sub-Committee of the LLACC on 15<sup>th</sup> November 1999. Subsequently the LLACC agreed the proposed move to the INM method on 13<sup>th</sup> December 1999.
- 1.9. Following extensive work between LBC and LLAOL the 2004 AMR radically improved the speed of information delivery, the format and content in accordance with the wishes of LLACC. Sections 2-7 have been produced exclusively by LLAOL. Sections 8-10 have been produced by LBC with data input on employment counts and car parking supplied by LLAOL.
- 1.10. Following validation the statistics contained within this report may differ to those presented in the Quarterly Airfield Environment Report.



**Sections 2-7**



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**Sections 8-10**



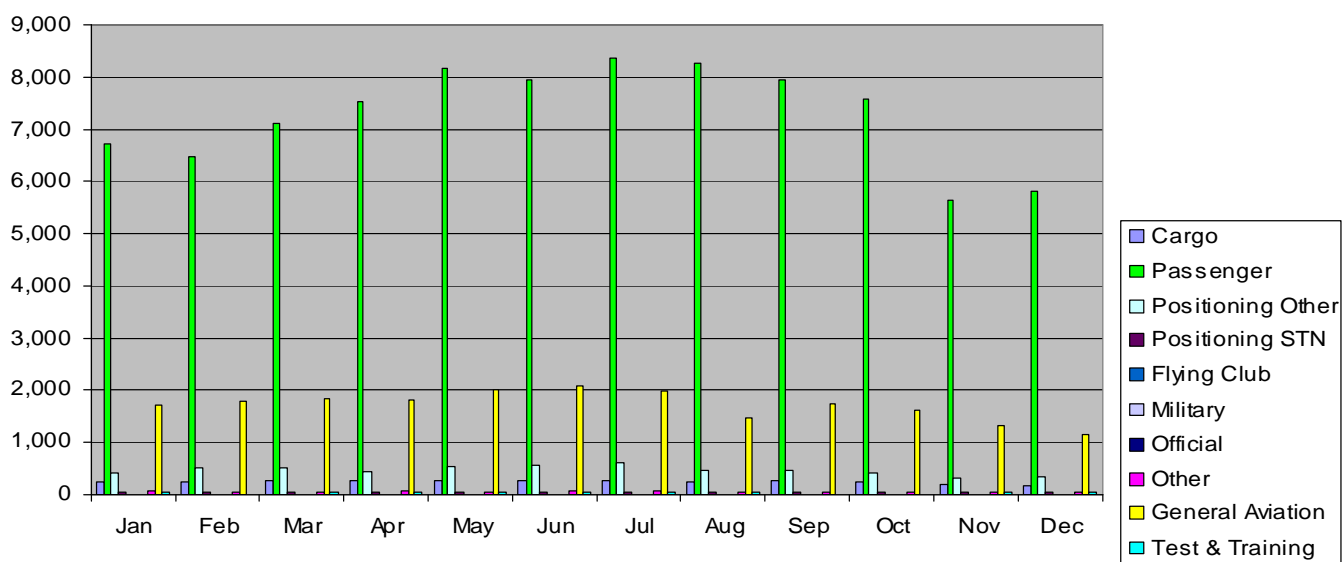
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## 2. Aircraft Movements

### 2.1. Total Aircraft Movements

An aircraft movement is the take-off or landing of any aircraft from the Airport. There were a total of 117,861 aircraft movements during 2008 (compared with 120,243 in 2007), a decrease of 2%. This resulted in an average 322 movements per 24 hours (in comparison with 329 in 2007).

	Commercial						Non - Commercial						
	Cargo	Passenger	Positioning		Total	Flying Club	Military	Official	Other	General Aviation	Test & Training	Total	Total
			Other	STN									
Jan	245	6,729	405	22	7,401	0	0	4	54	1,713	19	1,790	9,191
Feb	244	6,466	487	21	7,218	2	1	8	32	1,788	11	1,842	9,060
Mar	253	7,131	495	26	7,905	0	0	2	37	1,858	35	1,932	9,837
Apr	278	7,524	452	17	8,271	0	3	2	55	1,813	30	1,903	10,174
May	279	8,152	523	21	8,975	0	0	2	46	2,014	26	2,088	11,063
Jun	283	7,967	557	44	8,851	0	0	2	55	2,097	32	2,186	11,037
Jul	280	8,370	616	32	9,298	0	1	4	54	1,965	30	2,054	11,352
Aug	248	8,262	467	33	9,010	0	0	8	37	1,472	32	1,549	10,559
Sep	259	7,947	457	39	8,702	0	0	5	44	1,762	10	1,821	10,523
Oct	227	7,592	392	33	8,244	0	0	7	49	1,612	16	1,684	9,928
Nov	217	5,639	319	29	6,204	0	0	4	43	1,321	19	1,387	7,591
Dec	179	5,795	341	19	6,334	0	0	6	34	1,153	19	1,212	7,546
<b>2008 Total</b>	<b>2,992</b>	<b>87,574</b>	<b>5,511</b>	<b>336</b>	<b>96,413</b>	<b>2</b>	<b>5</b>	<b>54</b>	<b>540</b>	<b>20,568</b>	<b>279</b>	<b>21,448</b>	<b>117,861</b>
<b>2007 Total</b>	<b>3,276</b>	<b>85,129</b>	<b>5,852</b>	<b>359</b>	<b>94,616</b>	<b>273</b>	<b>11</b>	<b>45</b>	<b>647</b>	<b>24,419</b>	<b>232</b>	<b>25,627</b>	<b>120,243</b>



### 2.1.1. Movement Classifications

<b>Commercial</b>	Operating for hire or reward
<b>Non-Commercial</b>	Not operating for hire or reward
<b>Cargo</b>	Aircraft movements which are solely for freight. It should be noted that freight can also be carried on aircraft in other categories.
<b>General Aviation</b>	Private Aircraft, Helicopters and Business Jets
<b>Passenger</b>	Commercial passenger flights
<b>Other Positioning</b>	Positioning flights to/from other Airports
<b>STN Positioning</b>	Positioning flights to/from London-Stansted Airport
<b>Flying Club</b>	Britannia Flying Club and other Light aircraft movements
<b>Military</b>	Flights on Military business
<b>Official</b>	Flights solely for official purposes by British or foreign civil government departments.
<b>Other</b>	Other non-commercial movements e.g. a departing aircraft that has made an unscheduled return to base.
<b>Test &amp; Training</b>	Training Flights involving aircraft and also flights following or during aircraft maintenance

### 2.2. Aircraft Movements by Weight

Historically, aircraft operating at LLA have been classified in two groups, below or above 16 tonnes. Those below this weight were typically general aviation aircraft although in recent years many business jets can weigh in excess of 16 tonnes.

Aircraft Classifications (16 tonnes)

		2007	2008
Aircraft Over 16 Tonnes	Passenger	80,592	83,491
	Cargo	2,935	2,696
	Other	15,872	15,462
Aircraft Under 16 Tonnes	Passenger	4,537	4,083
	Cargo	341	296
	Other	15,966	11,833
<b>TOTAL</b>		<b>120,243</b>	<b>117,861</b>

### 2.3. Air Traffic Movements by Propulsion Type

**Key – Jet, Helicopter, Propeller, Turbo-prop**

AIRBUS A300 FREIGHTER FAMILY	1,252	HS125 FAMILY	19
AIRBUS A300-600 FREIGHTER	4	HS125-100/200/300	114
AIRBUS A300-600 PASSENGER	79	HS125-1000	88
AIRBUS A300-B4/C4/F4 FREIGHTER	458	HS125-400	67
AIRBUS A310-300	14	HS125-700/750	506
AIRBUS A318	26	HS125-800/850XP	2,549
AIRBUS A319	8,749	HS125-900/900XP	28
AIRBUS A319 CJ (EXEC)	79	ILYUSHIN 76TD-90	2
AIRBUS A320	11,400	MCD DOUGLAS DC-8 PAX FAMILY	2
AIRBUS A321	2,739	MCD DOUGLAS DC-9-10/15 FREIGHTER	98
AVRO RJ100	4	MCD DOUGLAS MD-11 FREIGHTER	2
BAE 146-100 PASSENGER	4	MCD DOUGLAS MD-83	48
BAE 146-200 PASSENGER	24	MCD DOUGLAS MD-87	6
BEECHCRAFT/RAYTHEON/HAWKER 400/450/XP	661	MCD DOUGLAS MD-90	2
BOEING 727 PASSENGER FAMILY	8	RAYTHEON 390 PREMIER 1	366
BOEING 727-100 PASSENGER	20	ROCKWELL SABRE/SABRELINER	2
BOEING 727-200 PASSENGER	4	YAKOVLEV YAK-40	4
BOEING 737 PASSENGER FAMILY	4	<b>Total</b>	<b>109,696</b>
BOEING 737-200 ADVANCED PASSENGER	2	AEROSPATIALE AS350/550 ECUREUIL	30
BOEING 737-200 PASSENGER	82	AEROSPATIALE AS355 ECUREUIL 2	168
BOEING 737-300 FREIGHTER	6	AEROSPATIALE AS365/565	10
BOEING 737-300 PASSENGER	783	AEROSPATIALE SA341/342 GAZELLE	8
BOEING 737-300 WINGLETs	52	AGUSTA A109/119	374
BOEING 737-400 PASSENGER	32	BELL 206 JET RANGER	12
BOEING 737-500	20	BELL 206L/427 LONG RANGER	2
BOEING 737-600	2	BELL 222/230/430	2
BOEING 737-700	36,402	BELL HELICOPTER FAMILY	2
BOEING 737-700 WINGLETs	3564	ENSTROM 480	2
BOEING 737-800	683	EUROCOPTER EC120	10
BOEING 737-800 WINGLETs	12,040	EUROCOPTER EC135/635	42
BOEING 737-900	4	EUROCOPTER EC155	184
BOEING 737-900 WINGLETs	4	EUROCOPTER EC45/145	98
BOEING 752-200 WINGLETs	2	MD HELICOPTERS MD900 EXPLORER	4
BOEING 757-200 FREIGHTER	112	SIKORSKY S-76	338
BOEING 757-200 PASSENGER	1,149	<b>Total</b>	<b>1,286</b>
BOEING 767-200 PASSENGER	806	BEECHCRAFT 55/58 BARON	4
BOEING 767-200ER	12	BEECHCRAFT TWIN PISTON	57
BOEING 767-300 PASSENGER	106	CESSNA 172	2
BOEING 767-300ER	50	CESSNA 205/206/207	2
BOEING BBJ (737-700)	102	CESSNA 404 TITAN	4
BOEING BBJ2 (737-800)	36	CESSNA 414	4
CANADAI R CHALLENGER 300	704	CIRRUS 20/22	4
CANADAI R CHALLENGER 600	965	DIAMOND STAR DA-40/42	2
CANADAI R CHALLENGER 601	157	DOUGLAS DC-6 PASSENGER	2
CANADAI R CHALLENGER 604	913	MOONEY M20J	5
CANADAI R CHALLENGER 605	149	PIPER LIGHT AIRCRAFT	14
CANADAI R CHALLENGER 800 SRS (CRJ1/2)	20	PIPER PA23/27 APACHE/AZTEC	4
CANADAI R GLOBAL 5000	235	PIPER PA28 CHEROKEE	4

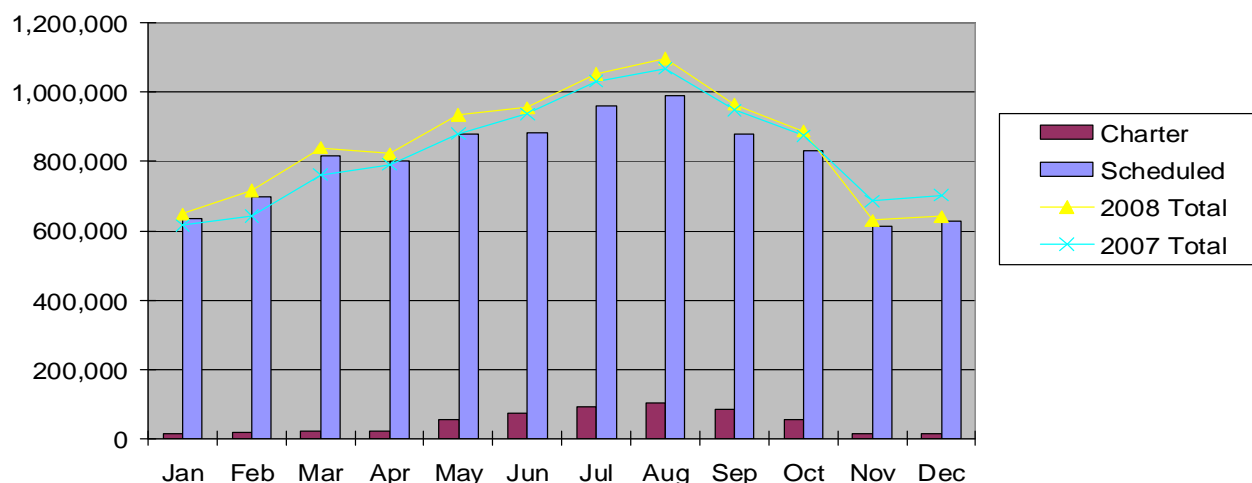
CANADAIR GLOBAL EXPRESS	1,271	PIPER PA31 NAVAJO	70
CANADAIR REGIONAL JET 100	32	PIPER PA34 SENECA II/III	24
CANADAIR REGIONAL JET 200 /440	146	ROBINSON R44	6
CANADAIR REGIONAL JET 700	2	<b>Total</b>	<b>208</b>
CANADAIR REGIONAL JET 900	10	AEROSPATIALE/ALENIA ATR42-200/300	50
CANADAIR REGIONAL JET FAMILY	4	AEROSPATIALE/ALENIA ATR72	3,464
CESSNA 500/501 CITATION I	22	ANTONOV AN-12/ AVIC Y-8	10
CESSNA 510 CITATION MUSTANG	264	ANTONOV AN-26	2
CESSNA 525 CITATIONJET	956	BAE ATP	1,048
CESSNA 525A CITATIONJET 2	879	BAE JETSTREAM 31	4
CESSNA 525B CITATIONJET 3	140	BAE JETSTREAM 41	4
CESSNA 550/551/552 CITATION 2/SP/BRAVO	1,219	BEECHCRAFT 1900/1900C	2
CESSNA 560 CITATION 5/ULTRA	243	BEECHCRAFT 1900D	73
CESSNA 560E CITATION ENCORE	12	BEECHCRAFT 200 KING AIR	376
CESSNA 560XL CITATION EXCEL/XLS	2,136	BEECHCRAFT 300/350 KING AIR	38
CESSNA 650 CITATION III/VI/VII	118	BEECHCRAFT 99	2
CESSNA 680 CITATION SOVEREIGN	198	BEECHCRAFT C90A/B/GT KING AIR	8
CESSNA 750 CITATION X	685	CANADAIR REGIONAL JET 700ER	4
DASSAULT FALCON 10/100	32	CESSNA 208 CARAVAN 1	2
DASSAULT FALCON 20/200	54	CESSNA 441 CONQUEST 2	18
DASSAULT FALCON 2000	1,476	CESSNA PISTON/TURBOPROP FAMILY	2
DASSAULT FALCON 2000 EX	135	DE HAVILLAND DHC-8 DASH 8-300	20
DASSAULT FALCON 50	218	DE HAVILLAND DHC-8 DASH 8-400	802
DASSAULT FALCON 50EX	76	FAIRCHILD DORNIER 228	4
DASSAULT FALCON 7X	54	FAIRCHILD DORNIER 328	46
DASSAULT FALCON 900	1,101	FOKKER 50/60	16
DASSAULT FALCON 900EX	505	FOKKER/FAIRCHILD F27	2
EMBRAER RJ135	1,007	GULFSTREAM JETPROP CMR 680-1000	2
EMBRAER RJ145	74	LOCKHEED L-100/182/382 HERCULES	12
FAIRCHILD DORNIER 328 JET	120	LOCKHEED L-188 ELECTRA FREIGHTER	2
FOKKER 100	12	MISC SINGLE PROP	4
GATES LEARJET 31	30	MISC TURBO PROP (SINGLE ENGINE)	2
GATES LEARJET 35/36	104	PIAGGIO P180	30
GATES LEARJET 40	222	PILATUS PC-12	96
GATES LEARJET 45	1,106	PILATUS/BN BN-2A/B ISLANDER	2
GATES LEARJET 55	32	PIPER LIGHT A/C (SINGLE PISTON)	2
GATES LEARJET 60	541	PIPER PA31T NAVAJO/CHEYENNE I/II	6
GULFSTREAM 100/150 / IAI 1125 ASTRA	62	PIPER PA42 CHEYENNE 3/4	10
GULFSTREAM 2	16	SAAB 2000	26
GULFSTREAM 200 / IAI 1126 GALAXY	334	SAAB 340A	8
GULFSTREAM 2B	14	SHORTS 360	310
GULFSTREAM 3	137	SOCATA TBM 700/850	52
GULFSTREAM 300	4	SW METRO/MERLIN FAMILY	2
GULFSTREAM 4	2,508	SW SA.26/226T/227TT/TP MERLIN II/III	2
GULFSTREAM 400	73	SW SA-226TC METRO II	20
GULFSTREAM 450	231	SW SA-227AC/BC METRO III	16
GULFSTREAM 5	1,705	SW SA-227CC/DC METRO 23	70
GULFSTREAM 550	521	<b>Total</b>	<b>6,671</b>
GULFSTREAM JET FAMILY	229	<b>Total</b>	<b>117,861</b>

## 2.4. Passenger Statistics

Charter flights are flights in which the aircraft has been chartered (or leased) by a company, typically a tour operator. Charter seats are typically not sold directly by the airline. Scheduled flights are regular flights organised by the company which owns the aircraft.

A total of 10,189,722 passengers were handled at LLA during 2008: 9,620,332 on scheduled flights (94%) and 569,390 on charter flights (6%). This represents an overall increase in passengers of 2.5% compared with 2007.

	2007			2008		
	Charter	Scheduled	Totals	Charter	Scheduled	Totals
Jan	21,560	594,048	615,608	13,508	635,114	648,622
Feb	24,276	618,567	642,843	17,082	699,492	716,574
Mar	34,483	726,940	761,423	22,062	817,835	839,897
Apr	35,962	756,203	792,165	20,184	802,309	822,493
May	69,856	809,738	879,594	55,989	878,521	934,510
Jun	87,846	849,201	937,047	72,142	883,713	955,855
Jul	105,109	927,061	1,032,170	92,878	959,573	1,052,451
Aug	128,617	939,636	1,068,253	104,753	991,203	1,095,956
Sep	105,856	842,326	948,182	85,735	880,058	965,793
Oct	71,400	802,121	873,521	54,012	833,050	887,062
Nov	15,218	670,620	685,838	16,559	613,537	630,096
Dec	17,037	686,120	703,157	14,486	625,927	640,413
<b>Totals</b>	<b>717,220</b>	<b>9,222,581</b>	<b>9,939,801</b>	<b>569,390</b>	<b>9,620,332</b>	<b>10,189,722</b>



## 2.5. Average passenger load per passenger carrying aircraft

Average Passengers on Scheduled and Charter Flights			
Year	Charter	Scheduled	Total
2004	143.34	117.64	120.14
2005	131.90	123.33	124.01
2006	119.15	121.66	121.46
2007	115.88	123.37	122.81
2008	101.30	123.16	121.72



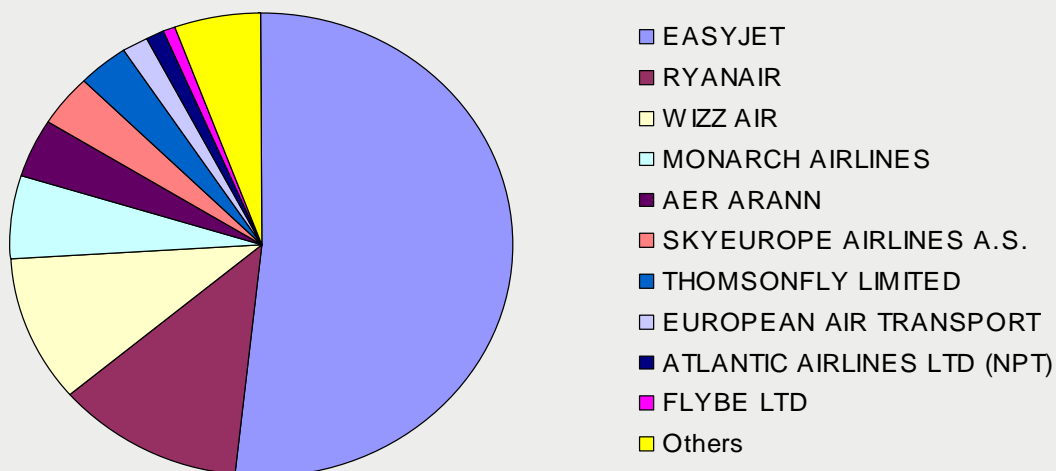
## 2.6. Passenger Breakdown by Region

	2007				2008			
	Domestic	EU	Non-EU	Total	Domestic	EU	Non-EU	Total
Jan	108,751	402,353	104,504	<b>615,608</b>	90,799	436,887	120,936	<b>648,622</b>
Feb	108,152	423,970	110,721	<b>642,843</b>	93,069	494,183	129,322	<b>716,574</b>
Mar	125,483	508,028	127,912	<b>761,423</b>	108,595	584,260	147,042	<b>839,897</b>
Apr	124,535	550,906	116,724	<b>792,165</b>	110,478	581,833	130,182	<b>822,493</b>
May	139,157	627,580	112,857	<b>879,594</b>	120,468	677,668	136,374	<b>934,510</b>
Jun	138,427	665,344	133,276	<b>937,047</b>	120,876	702,158	132,821	<b>955,855</b>
Jul	144,823	737,324	150,023	<b>1,032,170</b>	127,831	774,874	149,746	<b>1,052,451</b>
Aug	145,620	763,830	158,803	<b>1,068,253</b>	131,191	809,964	154,801	<b>1,095,956</b>
Sep	129,440	678,829	139,913	<b>948,182</b>	116,196	710,645	138,952	<b>965,793</b>
Oct	128,536	610,597	134,388	<b>873,521</b>	119,689	634,125	133,248	<b>887,062</b>
Nov	104,312	474,168	107,358	<b>685,838</b>	94,399	433,307	102,390	<b>630,096</b>
Dec	100,589	478,692	123,876	<b>703,157</b>	91,386	430,900	118,127	<b>640,413</b>
<b>Totals</b>	<b>1,497,825</b>	<b>6,921,621</b>	<b>1,520,355</b>	<b>9,939,801</b>	<b>1,324,977</b>	<b>7,270,804</b>	<b>1,593,941</b>	<b>10,189,722</b>

## 2.7. Movements by ten largest operators

Operator	Movements	%
EASYJET	44,667	52%
RYANAIR	10,550	12%
WIZZ AIR	8,768	10%
MONARCH AIRLINES	5,097	6%
AER ARANN	3,525	4%
SKYEUROPE AIRLINES A.S.	3,267	4%
THOMSONFLY LIMITED	2,908	3%
EUROPEAN AIR TRANSPORT	1,384	2%
ATLANTIC AIRLINES LTD (NPT)	957	1%
FLYBE LTD	800	1%
Others	4,705	5%
<b>TOTAL</b>	<b>86,628</b>	<b>100%</b>

N.B This table includes movements for both passenger & cargo aircraft but excludes positioning flights and air-taxis.



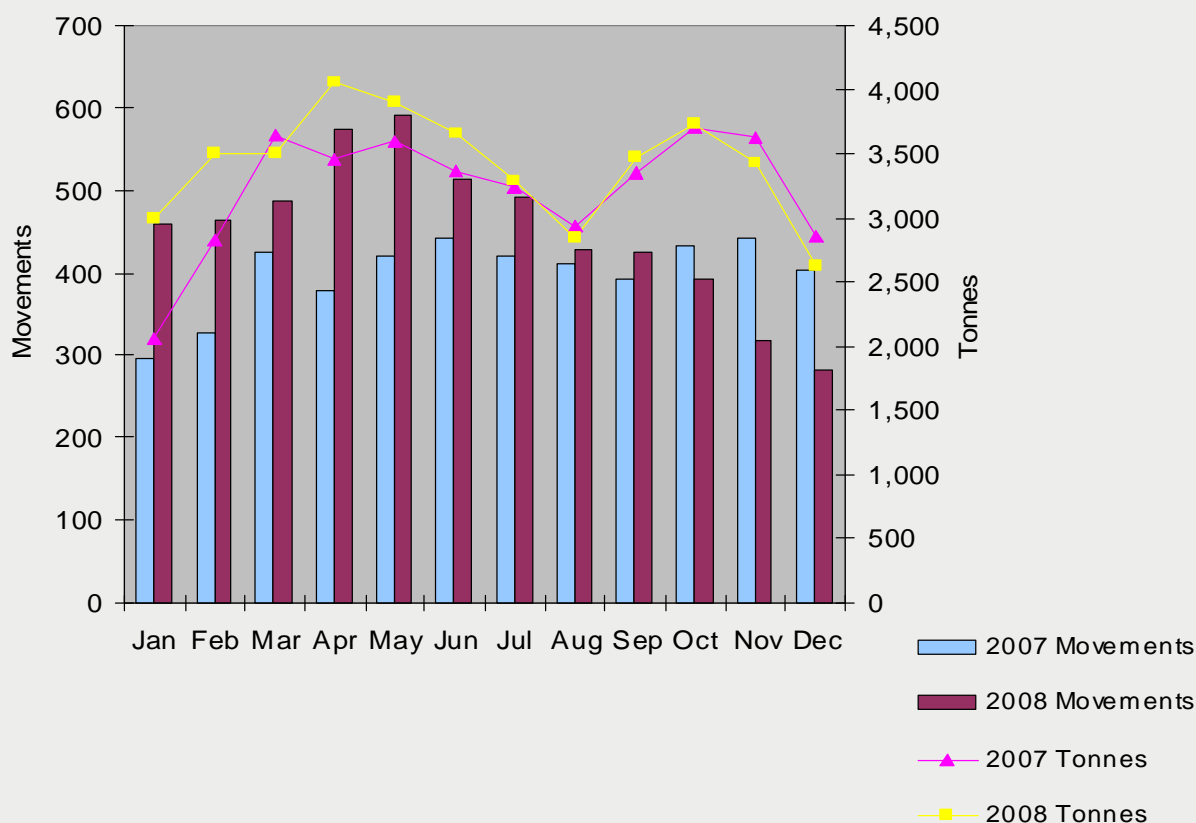
## 2.8. Movements and average seats by aircraft type

		Movements	Average Seats
EASYJET	AIRBUS A319	8,579	156
	BOEING 737-300 PASSENGER	6	130
	BOEING 737-700	36,079	149
	BOEING 757-200 PASSENGER	3	204
	Total	44,667	150
RYANAIR	BOEING 737-800	290	189
	BOEING 737-800 WINGLETS	10,260	189
	Total	10,550	189
WIZZ AIR	AIRBUS A320	8,766	180
	BOEING 737-800 WINGLETS	2	186
	Total	8,768	180
MONARCH AIRLINES	AIRBUS A300-600 PASSENGER	50	361
	AIRBUS A320	2,462	174
	AIRBUS A321	2,554	215
	BOEING 737-800 WINGLETS	2	189
	BOEING 757-200 PASSENGER	23	230
	BOEING 767-200 PASSENGER	4	249
	MCD DOUGLAS MD-83	2	170
	Total	5,097	196
AER ARANN	AEROSPATIALE/ALENIA ATR42-200	48	48
	AEROSPATIALE/ALENIA ATR72	3,449	70
	BAE 146-200 PASSENGER	2	95
	DE HAVILLAND DHC-8 DASH 8-300	14	50
	FOKKER 50/60	12	50
	Total	3,525	70
SKYEUROPE AIRLINES A.S.	BOEING 737-700 WINGLETS	3,267	149
	Total	3,267	149
THOMSONFLY LIMITED	BOEING 737-300 PASSENGER	611	148
	BOEING 737-300 WINGLETS	38	148
	BOEING 737-800	96	189
	BOEING 737-800 WINGLETS	1,383	189
	BOEING 757-200 PASSENGER	753	235
	BOEING 767-200 PASSENGER	13	242
	BOEING 767-200ER	2	264
	BOEING 767-300 PASSENGER	4	328
	BOEING 767-300ER	8	289
	Total	2,908	193
EUROPEAN AIR TRANSPORT	AIRBUS A300 FREIGHTER FAMILY	846	0
	AIRBUS A300-B4/C4/F4 FREIGHTER	418	0
	BOEING 757-200 FREIGHTER	97	0
	BOEING 757-200 PASSENGER	23	0
	Total	1,384	0
ATLANTIC AIRLINES LTD (NP)	BAE ATP	957	68
	Total	957	68
FLYBE LTD	DE HAVILLAND DHC-8 DASH 8-400	800	78
	Total	800	78
Others	Total	4,705	65
<b>TOTAL</b>		<b>86,628</b>	<b>150</b>

## 2.9. Total Cargo Movements & Tonnage

	2007		2008	
	Tonnes	Movements	Tonnes	Movements
Jan	2,056	297	2,997	459
Feb	2,825	328	3,497	463
Mar	3,637	426	3,494	487
Apr	3,454	377	4,058	574
May	3,599	421	3,908	590
Jun	3,363	442	3,660	513
Jul	3,241	420	3,283	493
Aug	2,941	412	2,845	427
Sep	3,354	392	3,469	425
Oct	3,700	432	3,739	393
Nov	3,630	443	3,419	318
Dec	2,854	404	2,624	283
<b>Total</b>	<b>38,652</b>	<b>4,794</b>	<b>40,992</b>	<b>5,425</b>

N.B The cargo movement count is the total number of movements that carried cargo as opposed to flights that are primarily operated for the carriage of cargo. This is because a proportion of cargo tonnage is carried on passenger aircraft. Consequently the movement figures in Table 2.9 will differ from Table 2.1 which shows dedicated cargo movements.



### 3. Routes

Airport	Code	Charter Operator	Scheduled Operator
Aberdeen	ABZ		easyJet
Alicante	ALC		easyJet/Monarch/ Thomson Airways
Amsterdam	AMS		easyJet
Antalya	AYT	Thomas Cook	
Arrecife	ACE	Thomas Cook/Thomson/Monarch	Monarch/Thomson Airways
Athens	ATH		easyJet
Barcelona	BCN		easyJet
Belfast Intl	BFS		easyJet
Berlin	SXF		easyJet
Beziars	BZR		Ryanair
Biarritz	BIQ		Ryanair
Bodrum	BJV	First Choice/Thomas Cook/Thomson	
Bordeaux	BOD		easyJet
Bourgas	BOJ	Thomson	Wizz Air
Bratislava	BTS		SkyEurope Airlines
Brest	BES		Ryanair
Bucharest	BBU		Wizz Air
Budapest	BUD		Wizz Air/easyJet
Cagliari	CAG		easyJet
Corfu	CFU	Thomson/Thomas Cook	
Dalaman	DLM	First Choice/Thomas Cook/Thomson	
Derry	LDY		Ryanair
Dortmund	DTM		easyJet
Dublin	DUB		Ryanair
Dubai *	DXB		Silverjet
Edinburgh	EDI		easyJet
Faro	FAO	First Choice/Thomas Cook/Thomson	easyJet/Monarch
Fuerteventura	FUE	First Choice/Thomas Cook	
Funchal	FNC	Thomson/Thomas Cook	
Galway	GWY		Aer Arann
Gdansk	GDN		Wizz Air
Geneva	GVA		easyJet
Gerona	GRO		Ryanair
Gibraltar	GIB		Monarch
Glasgow	GLA		easyJet
Grenoble	GNB		easyJet
Hamburg	HAM		easyJet
Heraklion	HER	Thomson	
Ibiza	IBZ	Thomas Cook/Thomson/First Choice	easyJet/Monarch
Inverness	INV		easyJet
Isle of Man	IOM		Flybe
Istanbul	SAW		easyJet
Jersey	JER		Flybe (was EZY)
Kaunas	KUN		Ryanair
Katowice	KTW		Wizz Air
Kerry	KIR		Ryanair
Kiev	IEV		Wizz Air
Knock	NON		Ryanair
Kosice	KSC		SkyEurope Airlines

Airport	Code	Charter Operator	Scheduled Operator
Krakow	KRK		easyJet
Larnaca	LCA	First Choice/Thomas Cook/Thomson	Monarch
Las Palmas	LPA	First Choice/Thomas Cook/Thomson/Monarch	Monarch
Lisbon	LIS		easyJet
Lviv	LWO		Wizz Air
Madrid	MAD		easyJet
Mahon	MAH	First Choice/Thomas Cook/Thomson/Monarch	Monarch
Malaga	AGP	Thomson	easyJet/Monarch
Malta	MLA	Thomson	Ryanair
Marrakech	RAK		Ryanair
Milan	BGY		Ryanair
Monastir	MIR	First Choice/Thomas Cook/Thomson	
Murcia	MJV		Ryanair
New York (Newark) *	EWY		Silverjet
Nice	NCE		easyJet
Nimes	FNI		Ryanair
Palma	PMI	First Choice/Thomas Cook/Thomson/Monarch	easyJet/Monarch
Paphos	PFO	First Choice/Thomas Cook/Thomson	
Paris CDG	CDG		easyJet
Pisa	PSA		easyJet
Poprad	TAT		SkyEurope Airlines
Poznan	POZ		Wizz Air
Prague	PRG		SkyEurope Airlines / Wizz Air
Reus	REU	Thomson	Ryanair
Rhodes	RHO	Thomas Cook/Thomson	
Rotterdam	RTM		transavia.com
Rovaniemi	RVN	First Choice	
Rzeszów	RZZ		Ryanair
Salzburg	SZG	Thomson	
Shannon	SNN		Ryanair
Sharm El Sheikh	SSH	Thomas Cook/Thomson	
Sofia	SOF		Wizz Air
Szczecin	SZZ		Ryanair
Tel Aviv	TLV		Thomson Airways
Tenerife	TFS	First Choice/Thomas Cook/Thomson/Monarch	Monarch
Thessalonika	SKG	Thomson	
Timisoara	TSR		Wizz Air
Transylvania	TGM		Wizz Air
Trapani	TPS		Ryanair
Turin	TRN		easyJet
Vienna	VIE		easyJet
Warsaw	WAW		easyJet/Wizz Air
Waterford	WAT		Aer Arann
Wroclaw	WRO		Wizz Air
Zagreb	ZAG		Wizz Air
Zakynthos	ZTH	Thomas Cook/Thomson/Monarch	
Zurich	ZRH		easyJet

New route for 2008

New route for 2009

For more information visit:- [www.london-luton.com](http://www.london-luton.com)

### 3.1. New Routes (Scheduled)

#### 2009 (seats sold in 2008)

Route	Country	Launch Date	Airline
Jersey	UK	29-Mar-09	Flybe
Prague	Czech Republic	19-Feb-09	Wizz Air
Lvov	Ukraine	04-Jan-09	Wizz Air

2009	
Airline	New Routes
Wizz Air	2
Flybe	1
<b>TOTAL</b>	<b>3</b>

#### 2008

Route	Country	Launch Date	Airline
Kiev	Ukraine	17-Dec-08	Wizz Air
Biarritz	France	04-Nov-08	Ryanair
Rzeszow	Poland	29-Oct-08	Ryanair
Szczecin	Poland	28-Oct-08	Ryanair
Trapani	Italy	28-Oct-08	Ryanair
Derry	UK	28-Oct-08	Ryanair
Kaunas	Lithuania	28-Oct-08	Ryanair
Beziers	France	27-Oct-08	Ryanair
Rotterdam	Netherlands	27-Oct-08	transavia.com
Timisoara	Romania	27-Oct-08	Wizz Air
<i>Paphos*</i>	<i>Cyprus</i>	<i>24-May-08</i>	<i>XL Airways</i>
<i>Larnaca*</i>	<i>Cyprus</i>	<i>23-May-08</i>	<i>XL Airways</i>
Pisa	Italy	20-Mar-08	easyJet
Jersey	UK	20-Mar-08	easyJet
Wroclaw	Poland	31-Jan-08	Wizz Air

2008	
Airline	New Routes
Ryanair	7
Wizz Air	3
easyJet	2
<i>XL Airways</i>	<i>2</i>
transavia.com	1
<b>TOTAL</b>	<b>15</b>
2008 NETT TOTAL	13

\* Key Routes ceased operating 2008

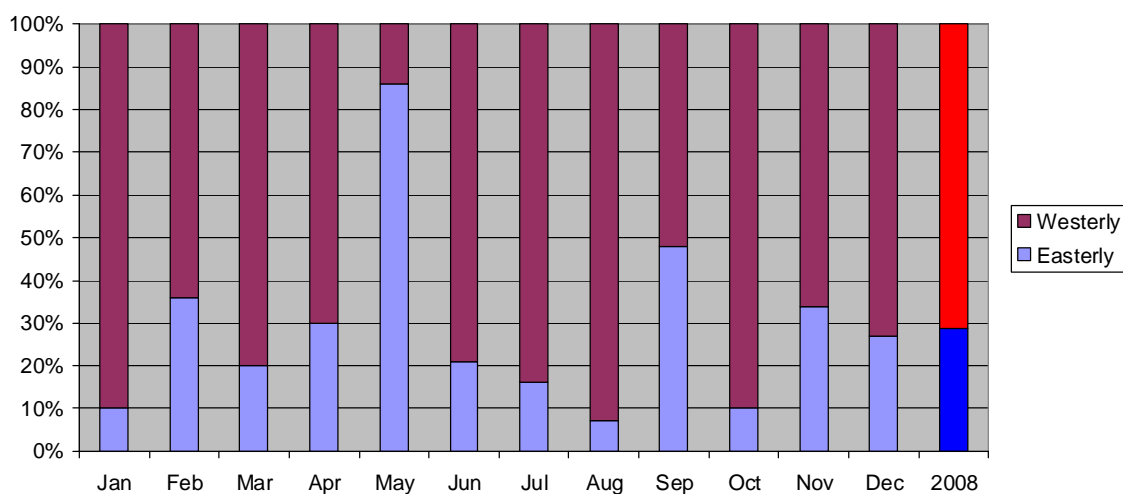


## 4. Runway Usage

The runway usage split (dictated primarily by wind direction) during 2008 was 29% easterly and 71% westerly (in line with 29% / 71% for 2007). A monthly breakdown is shown below, highlighting an exceptionally high level of easterly operations during May 2008. A breakdown of runway usage split over the last five years is also shown, giving a historical split of 29% easterly and 71% westerly.

Year	Easterly	Westerly
2008	29%	71%
2007	29%	71%
2006	30%	70%
2005	29%	71%
2004	26%	74%
<b>Average</b>	<b>29%</b>	<b>71%</b>

Month	Easterly	Westerly
Jan	10%	90%
Feb	36%	64%
Mar	20%	80%
Apr	30%	70%
May	86%	14%
Jun	21%	79%
Jul	16%	84%
Aug	7%	93%
Sep	48%	52%
Oct	10%	90%
Nov	34%	66%
Dec	27%	73%
<b>2008</b>	<b>29%</b>	<b>71%</b>



### 4.1. Runway split of aircraft movements during 92-day summer period

In the UK it is standard practice to average noise levels over a 16 hour daytime period (07:00–23:00, local time) and a 92-day summer season (16<sup>th</sup> June – 15<sup>th</sup> September). As part of the Night Noise Policy, LLA also produces an 8 hour night-time contour on a quarterly basis.

Year	Day (0700-2300 local)		Night (2300-0700 local)	
	Westerly	Easterly	Westerly	Easterly
2008	86%	14%	85%	15%
2007	84%	16%	85%	15%
2006	66%	34%	71%	29%
2005	67%	33%	69%	31%
2004	79%	21%	77%	23%
<b>Average</b>	<b>76%</b>	<b>24%</b>	<b>77%</b>	<b>23%</b>

#### 4.2. Day / Night Ratio of Movements

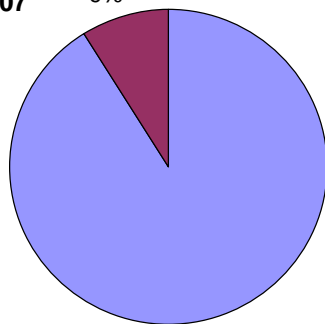
There were 9,881 night movements during 2008 (compared to 10,290 for 2007 a decrease of 4%), an average 27 movements per night (compared to 28 last year). The average ratio of total aircraft movements during 2008 was 92% day / 8% night (compared to 91% day / 9% night in 2007).

*The number of night movements quoted here within Section 4.2 will differ from those within Section 6 as the 8 hour Leq contour calculation period extends between 23:00 - 07:00, 7 days a week. The figures quoted here cover the night period, as defined in the Night Noise Policy for noise violation purposes, 23:00 until 06:00, Mon-Sat and until 07:00 on Sundays.*

	Arrivals		Departures		Totals		
	Day	Night	Day	Night	Day	Night	Total
Jan	4,162	436	4,379	214	8,541	650	9,191
Feb	4,130	409	4,335	186	8,465	595	9,060
Mar	4,424	491	4,711	211	9,135	702	9,837
Apr	4,483	614	4,856	221	9,339	835	10,174
May	4,788	740	5,274	261	10,062	1,001	11,063
Jun	4,722	796	5,239	280	9,961	1,076	11,037
Jul	4,798	871	5,391	292	10,189	1,163	11,352
Aug	4,493	790	4,995	281	9,488	1,071	10,559
Sep	4,472	791	4,997	263	9,469	1,054	10,523
Oct	4,323	635	4,786	184	9,109	819	9,928
Nov	3,478	326	3,635	152	7,113	478	7,591
Dec	3,456	301	3,653	136	7,109	437	7,546
<b>Total</b>	<b>51,729</b>	<b>7,200</b>	<b>56,251</b>	<b>2,681</b>	<b>107,980</b>	<b>9,881</b>	<b>117,861</b>

2007

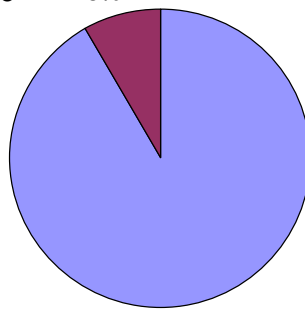
9%



91%

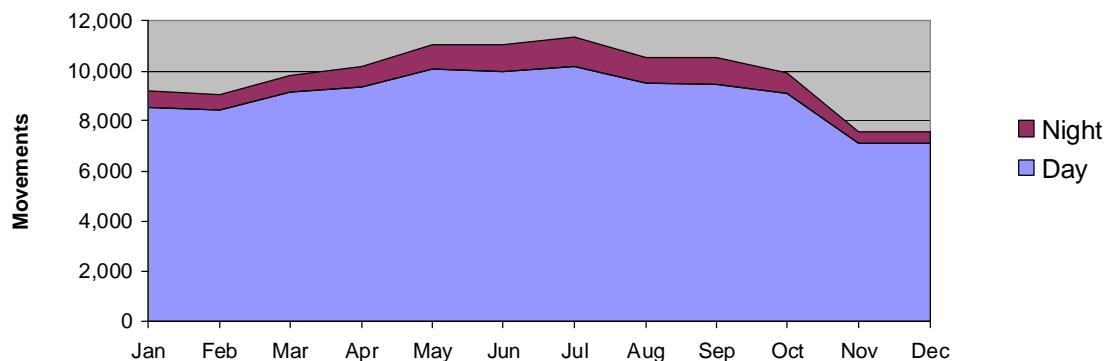
2008

8%

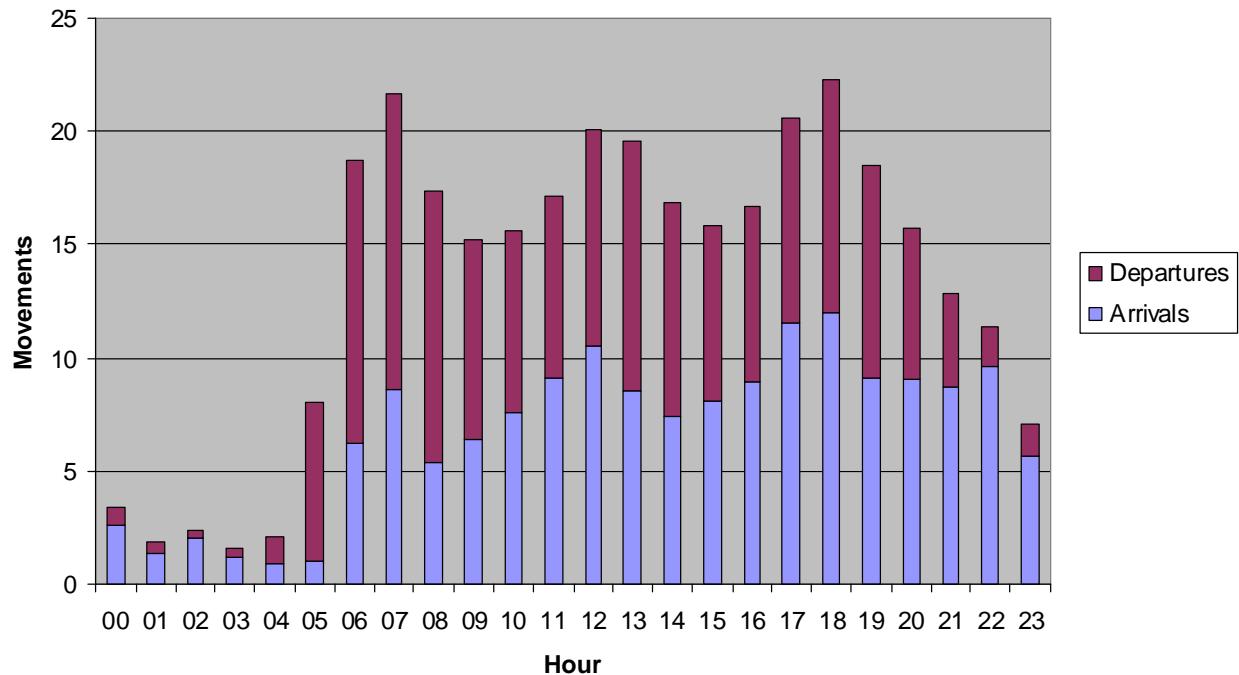


92%

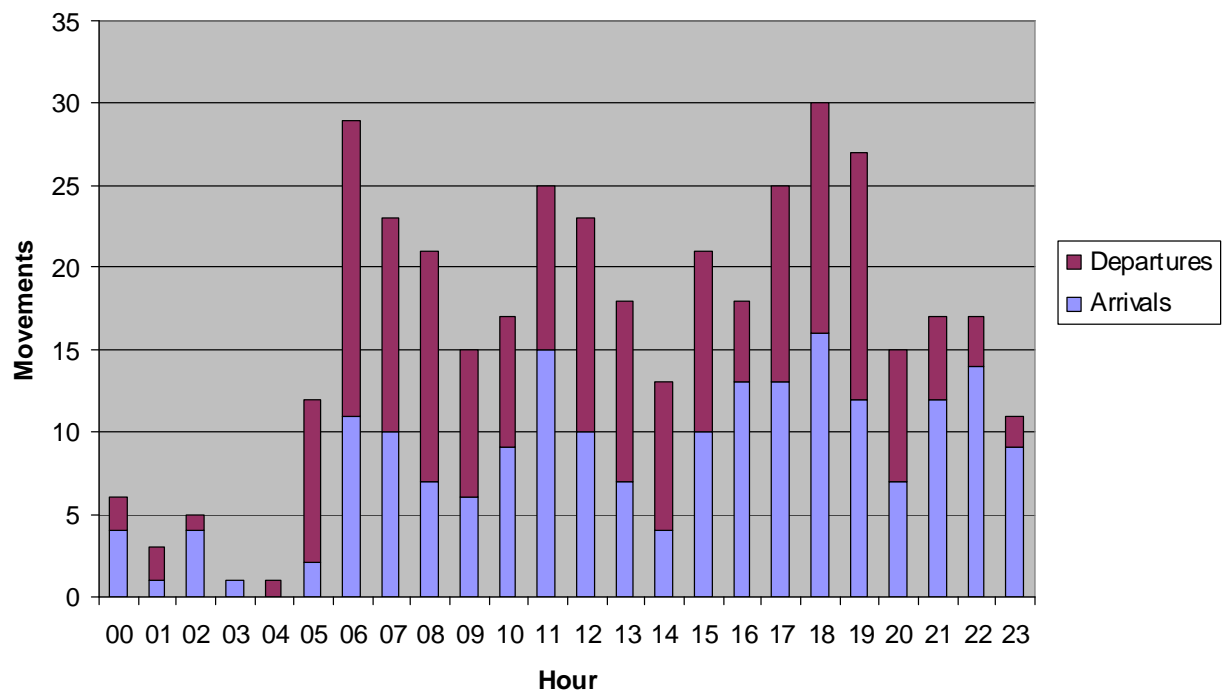
■ Day  
■ Night



#### 4.3. Annual Average Hourly Movements



#### 4.4. Average Hourly Movements 7<sup>th</sup> Busiest Day of 2008 (11<sup>th</sup> July)



4.4.1. From the above two graphs it can be seen that the busiest hour for movements is between 18:00-19:00. The busiest time for departing aircraft is 07:00-08:00 annually and 06:00 07:00 on the 11<sup>th</sup> July. On both graphs the busiest time for arrivals is 18:00-19:00.

#### 4.5. 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 - 06:00, Mon-Sat and until 07:00 on Sunday.

		Clacton*		Compton		Olney		Other**		Heli	Total
		08	26	08	26	08	26	08	26		
Jan	Day	156	1,488	184	1,570	90	762	8	72	49	4,379
	Night	10	94	4	60	7	33	0	2	4	214
	<b>Total</b>	<b>166</b>	<b>1,582</b>	<b>188</b>	<b>1,630</b>	<b>97</b>	<b>795</b>	<b>8</b>	<b>74</b>	<b>53</b>	<b>4,593</b>
Feb	Day	596	1,078	681	1,127	249	485	14	51	54	4,335
	Night	33	62	24	32	8	23	1	3	0	186
	<b>Total</b>	<b>629</b>	<b>1,140</b>	<b>705</b>	<b>1,159</b>	<b>257</b>	<b>508</b>	<b>15</b>	<b>54</b>	<b>54</b>	<b>4,521</b>
Mar	Day	357	1,377	411	1,565	172	693	13	63	60	4,711
	Night	11	100	8	53	1	30	0	6	2	211
	<b>Total</b>	<b>368</b>	<b>1,477</b>	<b>419</b>	<b>1,618</b>	<b>173</b>	<b>723</b>	<b>13</b>	<b>69</b>	<b>62</b>	<b>4,922</b>
Apr	Day	543	1,226	653	1,415	271	613	16	62	57	4,856
	Night	28	82	20	57	8	20	2	3	1	221
	<b>Total</b>	<b>571</b>	<b>1,308</b>	<b>673</b>	<b>1,472</b>	<b>279</b>	<b>633</b>	<b>18</b>	<b>65</b>	<b>58</b>	<b>5,077</b>
May	Day	1,637	274	1,984	341	774	138	63	13	50	5,274
	Night	99	20	91	9	38	3	1	0	0	261
	<b>Total</b>	<b>1,736</b>	<b>294</b>	<b>2,075</b>	<b>350</b>	<b>812</b>	<b>141</b>	<b>64</b>	<b>13</b>	<b>50</b>	<b>5,535</b>
Jun	Day	385	1,509	455	1,817	176	727	17	80	73	5,239
	Night	34	95	27	79	10	27	2	5	1	280
	<b>Total</b>	<b>419</b>	<b>1,604</b>	<b>482</b>	<b>1,896</b>	<b>186</b>	<b>754</b>	<b>19</b>	<b>85</b>	<b>74</b>	<b>5,519</b>
Jul	Day	325	1,592	412	2,058	139	706	9	65	85	5,391
	Night	21	111	14	98	2	32	3	4	7	292
	<b>Total</b>	<b>346</b>	<b>1,703</b>	<b>426</b>	<b>2,156</b>	<b>141</b>	<b>738</b>	<b>12</b>	<b>69</b>	<b>92</b>	<b>5,683</b>
Aug	Day	123	1,629	169	2,147	54	759	7	63	44	4,995
	Night	12	126	19	87	4	29	0	2	2	281
	<b>Total</b>	<b>135</b>	<b>1,755</b>	<b>188</b>	<b>2,234</b>	<b>58</b>	<b>788</b>	<b>7</b>	<b>65</b>	<b>46</b>	<b>5,276</b>
Sep	Day	847	943	1,096	1,144	411	419	46	41	50	4,997
	Night	54	64	51	58	12	20	1	2	1	263
	<b>Total</b>	<b>901</b>	<b>1,007</b>	<b>1,147</b>	<b>1,202</b>	<b>423</b>	<b>439</b>	<b>47</b>	<b>43</b>	<b>51</b>	<b>5,260</b>
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>Day Total</b>		<b>5,990</b>	<b>14,793</b>	<b>7,103</b>	<b>16,943</b>	<b>2,840</b>	<b>7,097</b>	<b>235</b>	<b>627</b>	<b>623</b>	<b>56,251</b>
<b>Night Total</b>		<b>349</b>	<b>898</b>	<b>300</b>	<b>680</b>	<b>104</b>	<b>279</b>	<b>11</b>	<b>33</b>	<b>27</b>	<b>2,681</b>
<b>Total</b>		<b>6,339</b>	<b>15,691</b>	<b>7,403</b>	<b>17,623</b>	<b>2,944</b>	<b>7,376</b>	<b>246</b>	<b>660</b>	<b>650</b>	<b>58,932</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, such as Test/Training flights and the Flying Club.

#### 4.6. Arrivals Route Analysis

The following table reports the total number of arrivals, differentiating between easterly (08) and westerly (26) operations. Night movements quoted below arrived between 23:00 - 06:00, Mon-Sat and until 07:00 on Sunday. This report also includes percentage figures for flights that have achieved a Continuous Descent Approach (CDA), helping reduce both noise and fuel consumption, which requires 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 (%)
Jan	Day	395	3,716	51	4,162	87	76	77
	Night	45	388	3	436	74	55	57
	<b>Total</b>	<b>440</b>	<b>4,104</b>	<b>54</b>	<b>4,598</b>	<b>86</b>	<b>75</b>	<b>76</b>
Feb	Day	1,443	2,633	54	4,130	93	79	84
	Night	135	274	0	409	76	59	65
	<b>Total</b>	<b>1,578</b>	<b>2,907</b>	<b>54</b>	<b>4,539</b>	<b>92</b>	<b>78</b>	<b>83</b>
Mar	Day	909	3,455	60	4,424	91	81	83
	Night	51	438	2	491	72	61	63
	<b>Total</b>	<b>960</b>	<b>3,893</b>	<b>62</b>	<b>4,915</b>	<b>90</b>	<b>79</b>	<b>81</b>
Apr	Day	1,335	3,093	55	4,483	90	84	86
	Night	141	470	3	614	85	71	75
	<b>Total</b>	<b>1,476</b>	<b>3,563</b>	<b>58</b>	<b>5,097</b>	<b>89</b>	<b>81</b>	<b>83</b>
May	Day	4,079	661	48	4,788	n/a	n/a	n/a
	Night	617	121	2	740	n/a	n/a	n/a
	<b>Total</b>	<b>4,696</b>	<b>782</b>	<b>50</b>	<b>5,528</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
Jun	Day	951	3,703	68	4,722	93	84	86
	Night	206	585	5	796	84	78	80
	<b>Total</b>	<b>1,157</b>	<b>4,288</b>	<b>73</b>	<b>5,518</b>	<b>92</b>	<b>83</b>	<b>85</b>
Jul	Day	731	3,987	80	4,798	94	87	88
	Night	145	715	11	871	81	77	78
	<b>Total</b>	<b>876</b>	<b>4,702</b>	<b>91</b>	<b>5,669</b>	<b>92</b>	<b>85</b>	<b>86</b>
Aug	Day	302	4,148	43	4,493	95	87	87
	Night	63	724	3	790	78	78	78
	<b>Total</b>	<b>365</b>	<b>4,872</b>	<b>46</b>	<b>5,283</b>	<b>91</b>	<b>85</b>	<b>86</b>
Sep	Day	2,139	2,280	53	4,472	93	86	89
	Night	356	435	0	791	83	75	78
	<b>Total</b>	<b>2,495</b>	<b>2,715</b>	<b>53</b>	<b>5,263</b>	<b>91</b>	<b>84</b>	<b>88</b>
Oct	Day	437	3,841	45	4,323	91	86	86
	Night	86	549	0	635	74	75	75
	<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>
Nov	Day	1,214	2,235	29	3,478	89	81	84
	Night	119	205	2	326	76	68	69
	<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>
Dec	Day	981	2,441	34	3,456	91	81	84
	Night	56	245	0	301	78	65	68
	<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>Day Total</b>		<b>14,916</b>	<b>36,193</b>	<b>620</b>	<b>51,729</b>	<b>92</b>	<b>83</b>	<b>85</b>
<b>Night Total</b>		<b>2,020</b>	<b>5,149</b>	<b>31</b>	<b>7,200</b>	<b>79</b>	<b>72</b>	<b>74</b>
<b>Total</b>		<b>16,936</b>	<b>41,342</b>	<b>651</b>	<b>58,929</b>	<b>90</b>	<b>82</b>	<b>84</b>

\* A temporary loss of the radar link between NATS and the Topsonic monitoring system (due to the closure of West Drayton) resulted in no CDA data being available from 25<sup>th</sup> April to 9<sup>th</sup> June 2008.

#### **4.7. Flight routes and sample flight tracks**

Figures 4.8 and 4.9 show indicative flight routes for easterly and westerly operations. Flight routes shown are typical 3km swathes for departing aircraft on Noise Preferential Routings (NPRs) and arrivals which are established on final approach. Departure routes are valid up to an altitude of 3000ft during the daytime and 4000ft at night, after which time Air Traffic Control at the London Terminal Control Centre (LTCC) can give the aircraft a more direct heading.

Figures 4.10 and 4.11 display actual radar flight data taken over a 24 hour period during summer 2008 for both westerly and easterly operations. Arriving traffic is shown in red with departures in green.

Figures 4.12 and 4.13 show the same 24 hour periods as above, displaying the aircraft radar data in altitude bands up to 10,000ft above mean sea level. These radar tracks show a single mode of operation only i.e. easterly or westerly operations and include both arriving and departing aircraft.

Figures 4.14, 4.15 and 4.16 display aircraft track density plots for the summer period 16<sup>th</sup> June – 15<sup>th</sup> September 2008. A track density plot is a map which displays the pattern of aircraft flight tracks passing over the region around the Airport during a specified period. The system analyses the number of flights passing over each grid element of an array defined by the user.

The track density plot takes into account all London Luton aircraft and provides a useful indication of the general patterns for flight operations.

Figures 4.14 and 4.15 show arrivals and departures only with 4.16 showing all LLA movements.

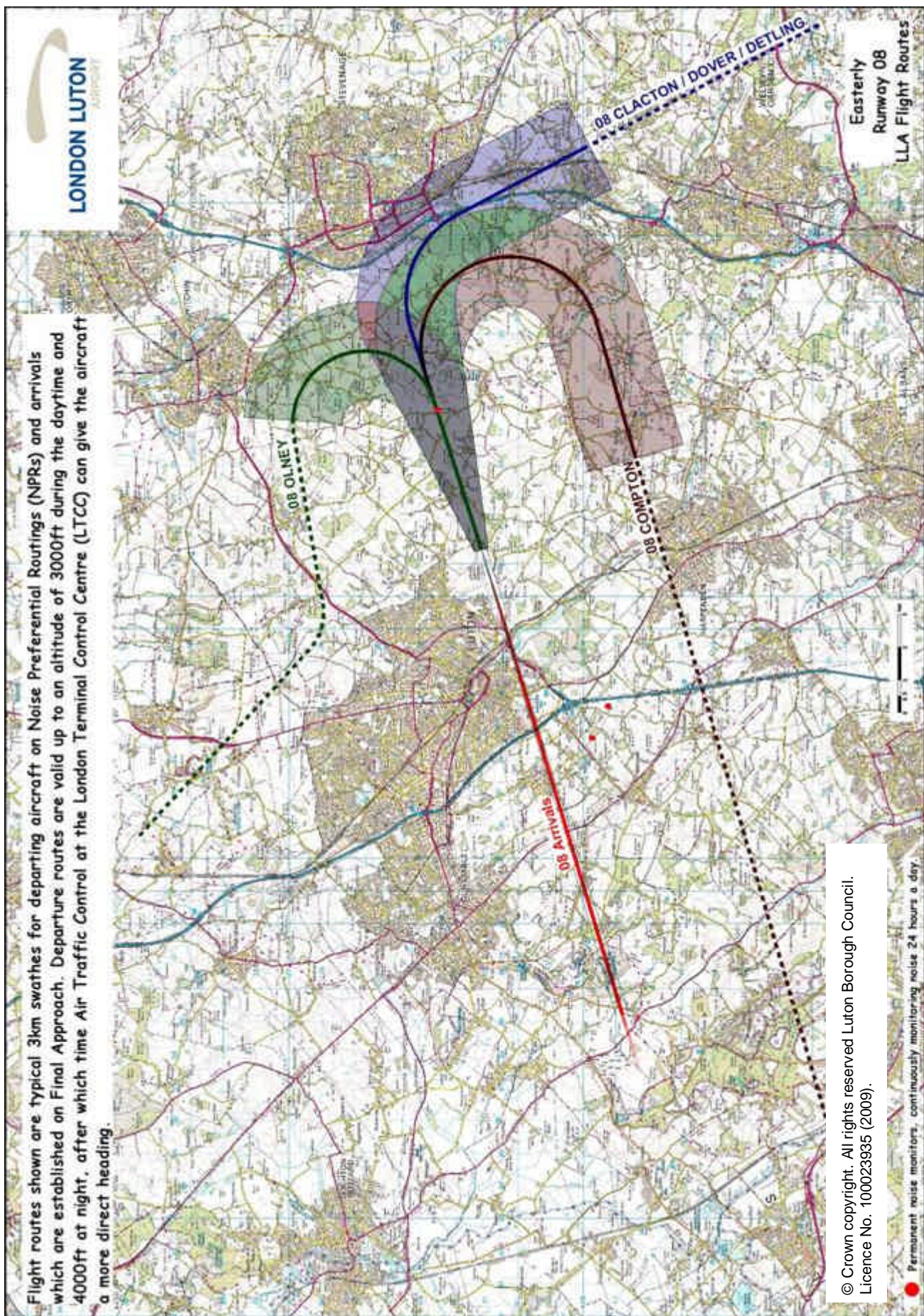
The colour coding from blue to yellow represents the range 3 to over 150 flight tracks over a grid element. If any grid element is not colour-coded, the number of aircraft flight tracks passing over that element during the 92 day summer period was less than 3 flights.

The yellow areas represent locations where operations are more densely concentrated over the given period.

It should be noted that the following sample flight tracks only include operations for LLA and overflights from other Airports have been omitted for clarity.

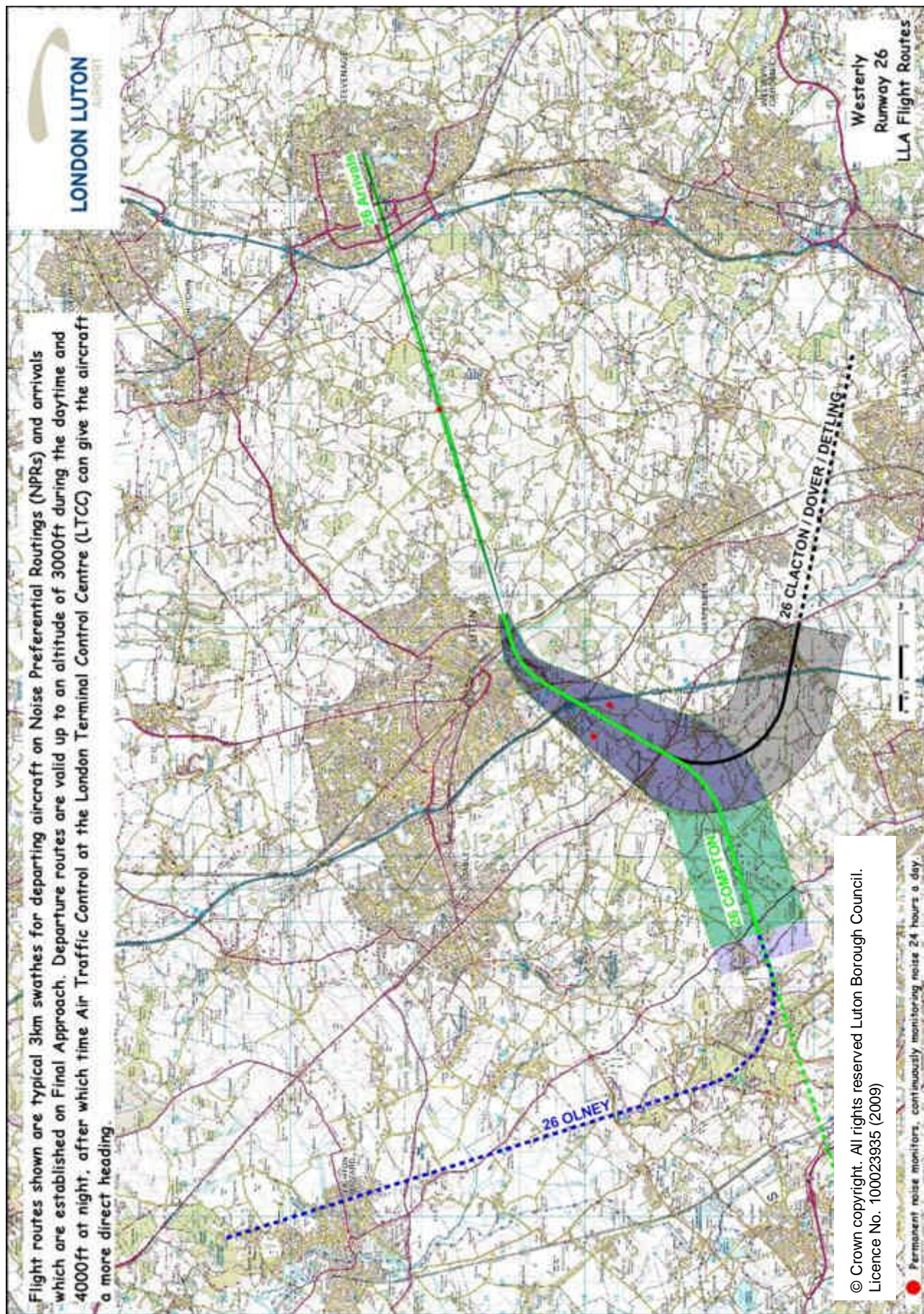


#### 4.8. Plan showing Easterly (08) flight routes





#### 4.9. Plan showing Westerly (26) flight routes



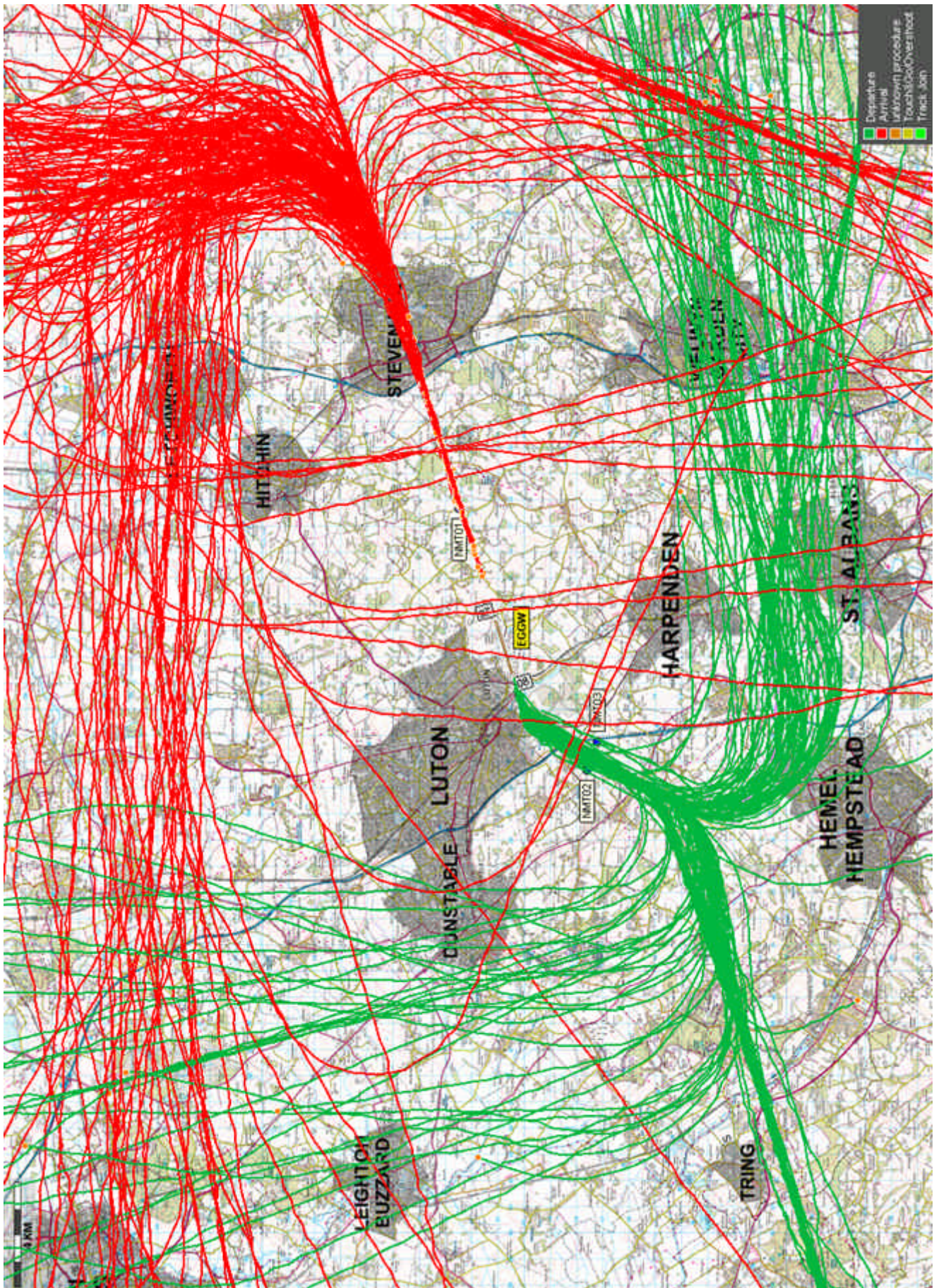


**4.10. Arrivals and Departures – Easterly (08) Flight Routes (24 hour period)**



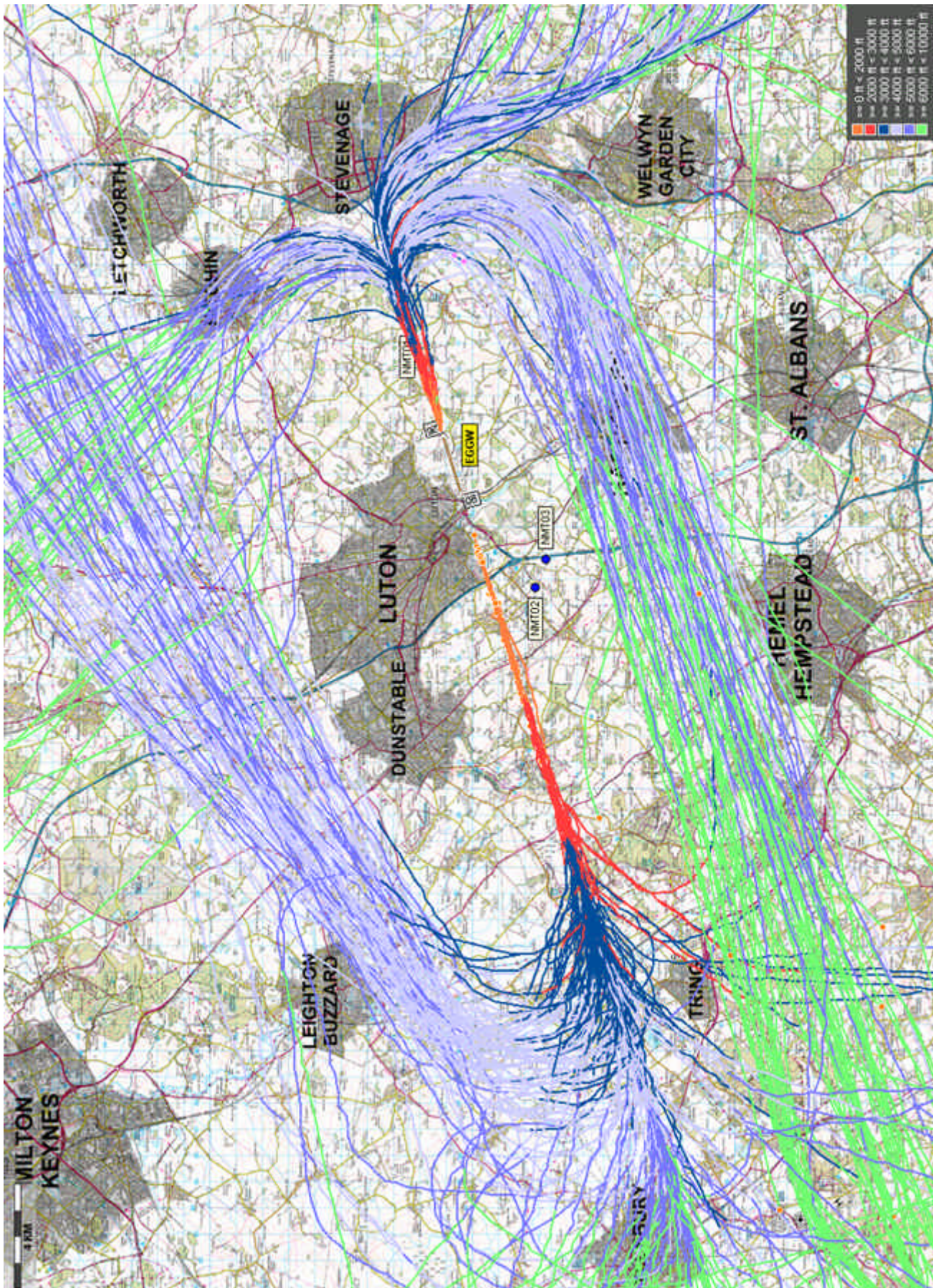


**4.11. Arrivals and Departures – Westerly (26) Flight Routes (24 hour period)**



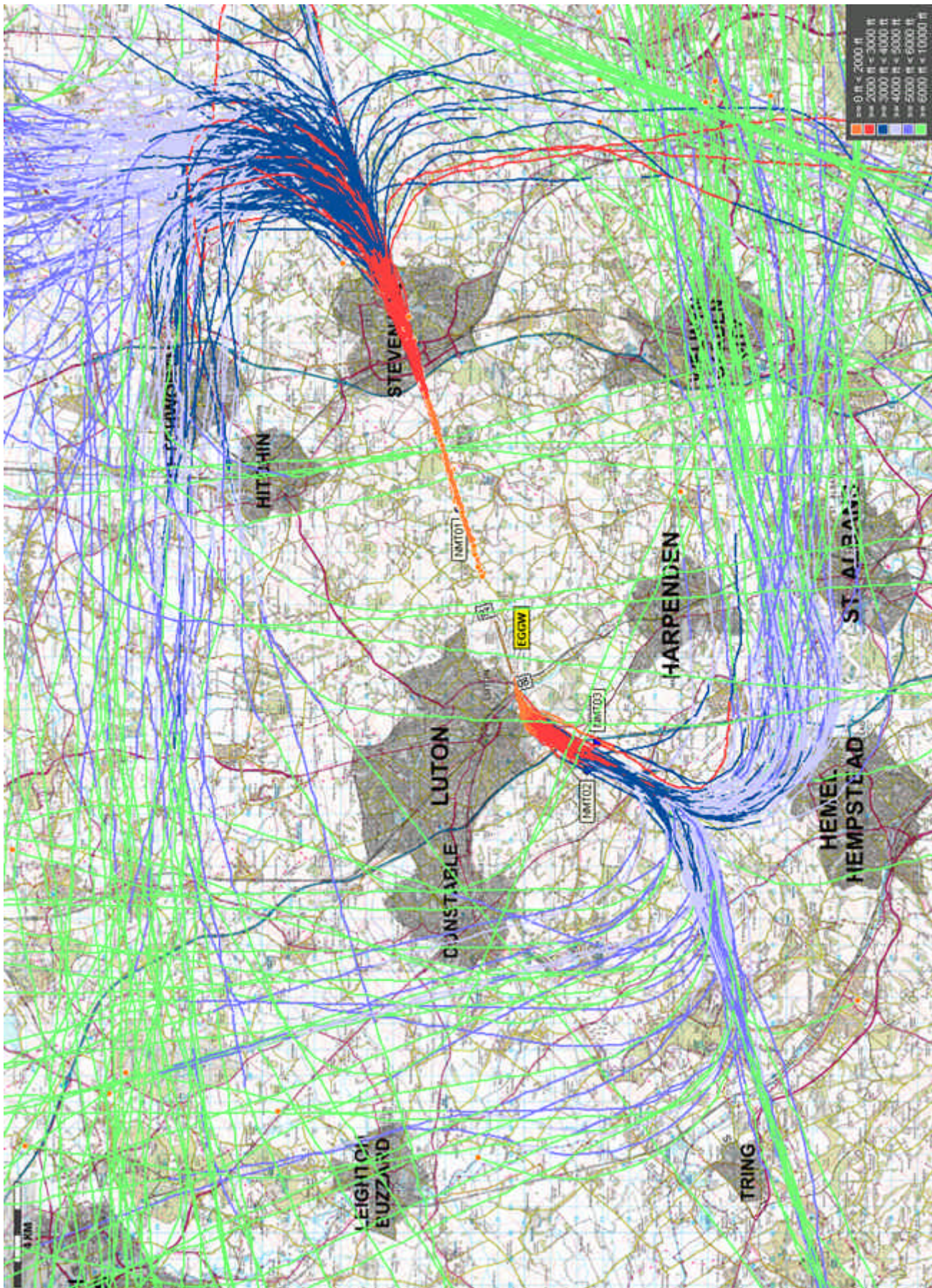


**4.12. Flight Levels – Easterly (08) Flight Routes (24 hour period)**



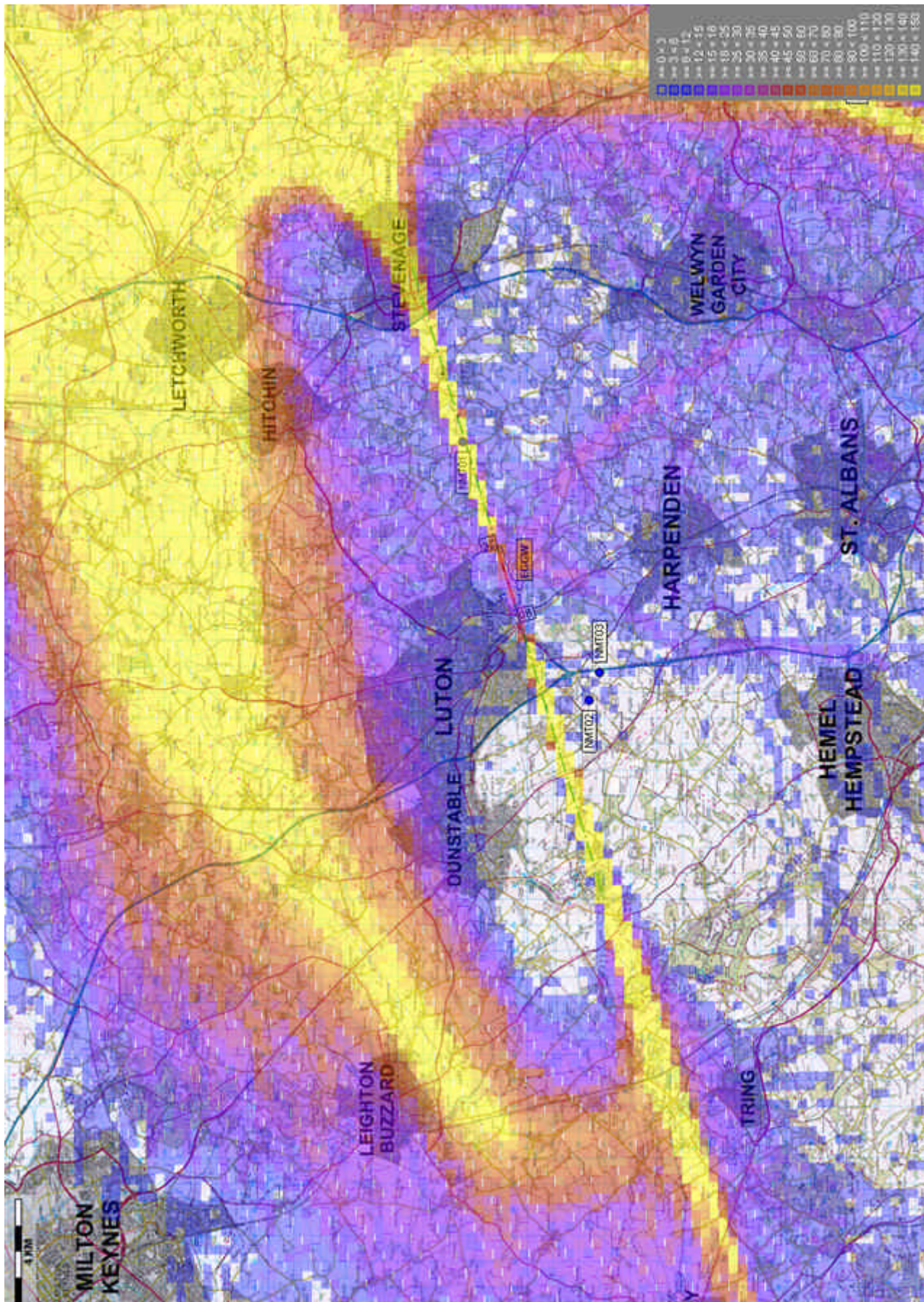


**4.13. Flight Levels – Westerly (26) Flight Routes (24 hour period)**



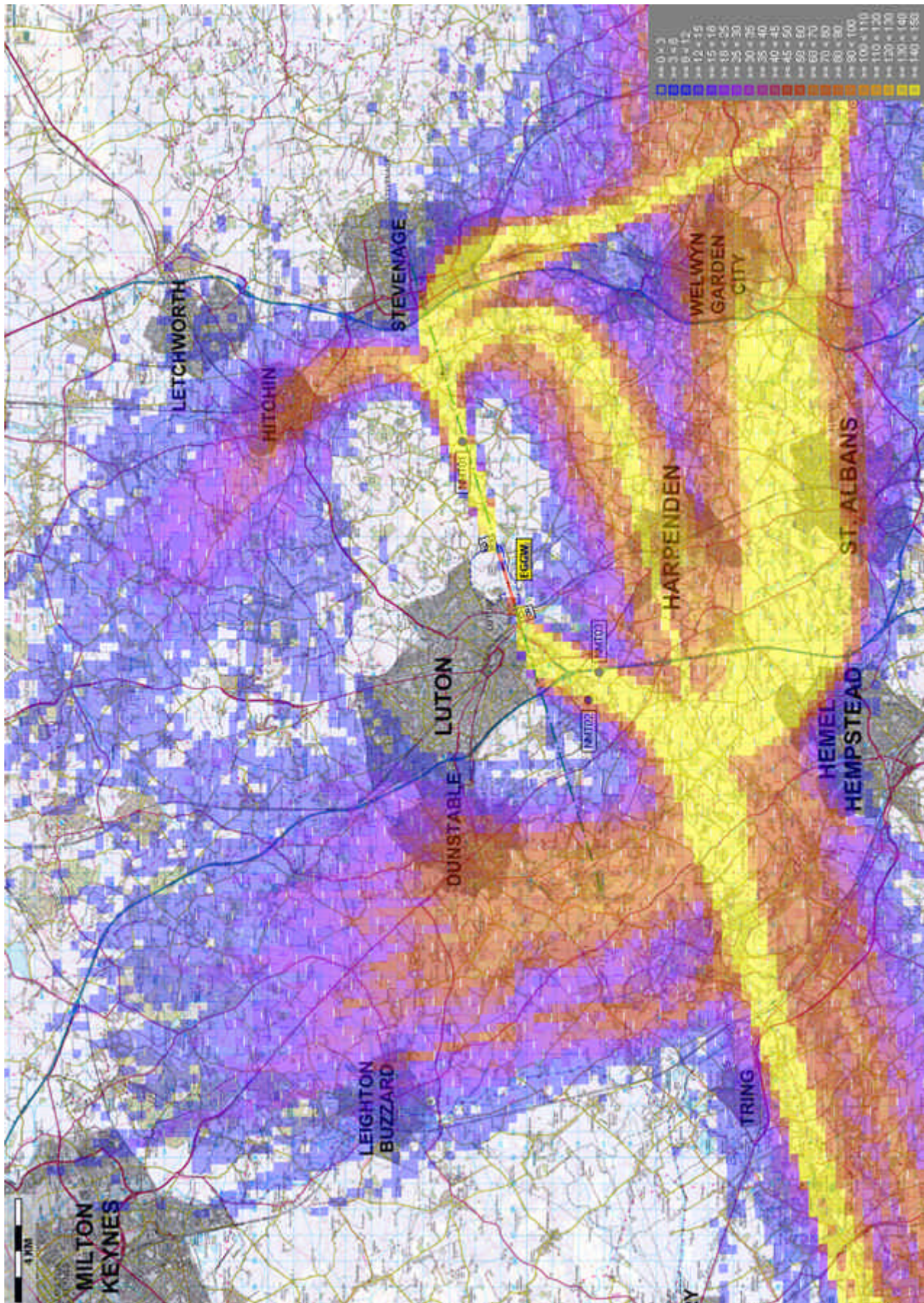


**4.14. Plot Density – 16<sup>th</sup> June – 15<sup>th</sup> September 2008 - Arrivals only**



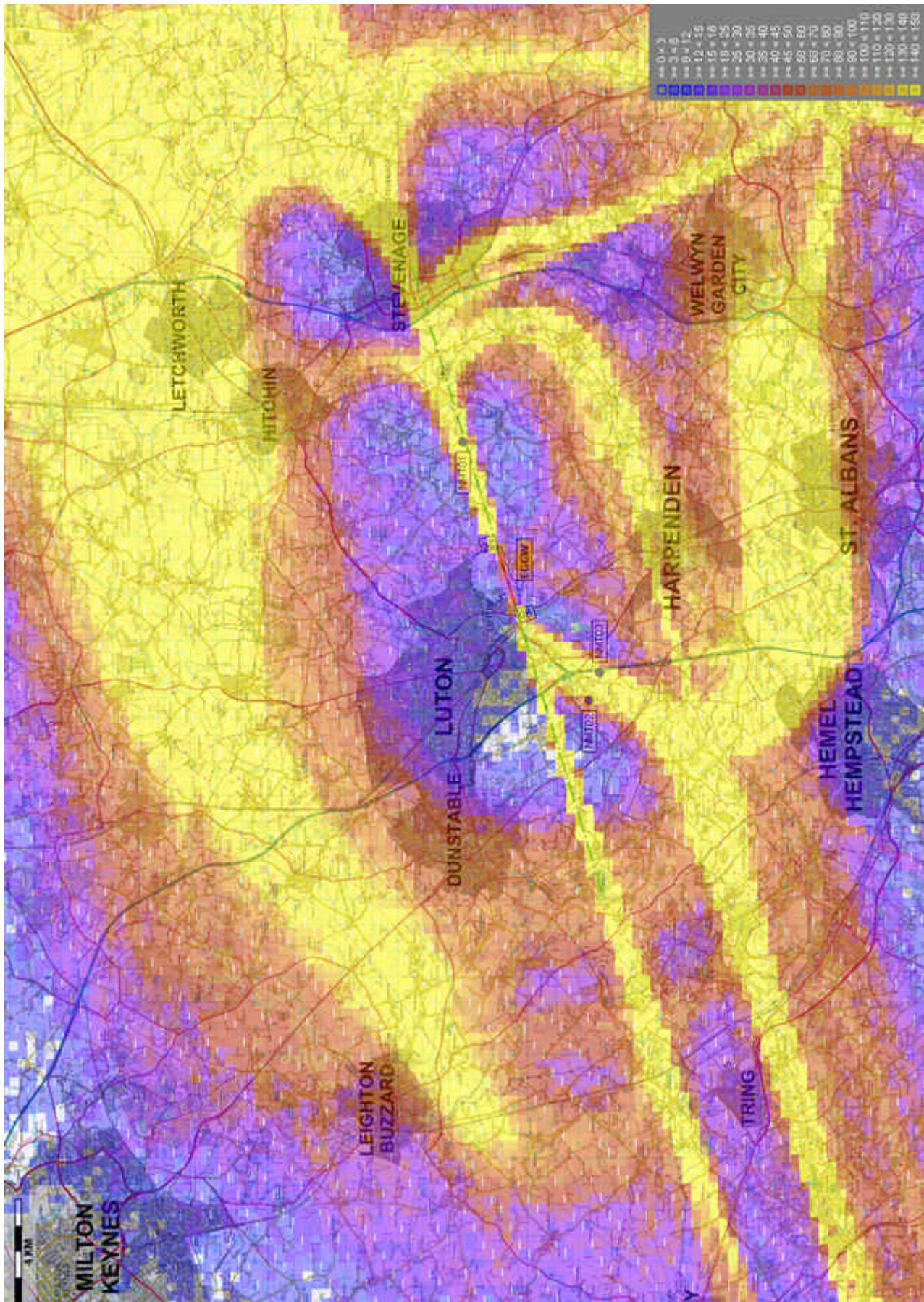


**4.15. Plot Density – 16<sup>th</sup> June – 15<sup>th</sup> September 2008 - Departures only**





**4.16. Plot Density – 16<sup>th</sup> June – 15<sup>th</sup> September 2008 - Arrivals and Departures**





## 5. Noise Monitoring Data

The aircraft noise generated by the operation of the Airport has always been important and is incorporated in the planning framework for the area in which the Airport is located (see Section 10). Regard must be paid to the Borough of Luton Local Plan, so aircraft noise is monitored and reviewed by the LLACC on a quarterly basis.

### 5.1. Departure Noise Levels

LLAOL use the ICAO standard for noise monitoring at the Airport. This covers all times of the day and night and all seasons, but it is standard practice that only departures are reported. Figures 4.8 and 4.9 show the locations of the monitoring points, which are set at 6,500m from the aircraft start of roll, at either end of the runway. This method records the maximum noise level at a point, rather than the way it is spread over the surrounding area, which is separately measured by Leq. The maximum-recorded noise level for each departure is used. All aircraft type departures are recorded not just jets, however helicopters and small light aircraft are not required to follow Noise Preferential Routings (NPRs) so they will not be recorded.

Data shows a decrease in the total number of departure noise events recorded in 2008 compared to 2007 (from 47,252 to 44,113). During 2008 no departures exceeded the 94dB(A) daytime noise limit and only two exceeded the night-time limit of 85dB(A).

The detection threshold 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, typically with a Maximum Take-Off Weight (MTOW) of less than 30,000kg, get very close to but do not reach the detection threshold. Ambient background noise is also an important factor in detecting aircraft noise 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 with noise events. Generally the louder noise events have more certainty of being correlated with aircraft movements.

During the daytime 99% of departing aircraft recorded maximum noise levels of less than 79dB(A), with 62% of daytime departures registering below 73dB(A). 364 daytime departures registered maximum noise levels above 79dB(A) in 2008, compared to 470 aircraft in this noise band during 2007. In 2008 there were no daytime noise exceedences.

The night period is taken as 23:00 – 06:00 local time, Monday to Saturday, and until 07:00 on a Sunday. During the night 96% of departures recorded maximum noise levels below 79dB(A), with 61% of night departures registering below 73dB(A). 63 night departures registered maximum noise levels above 79dB(A) during 2008, compared to 51 in this noise band during 2007. During 2008 2 departures exceeded the 85dB(A) night-time noise limit. Details of the noise penalties are listed in section 5.5.

### 5.2. Noise and Track Monitoring System

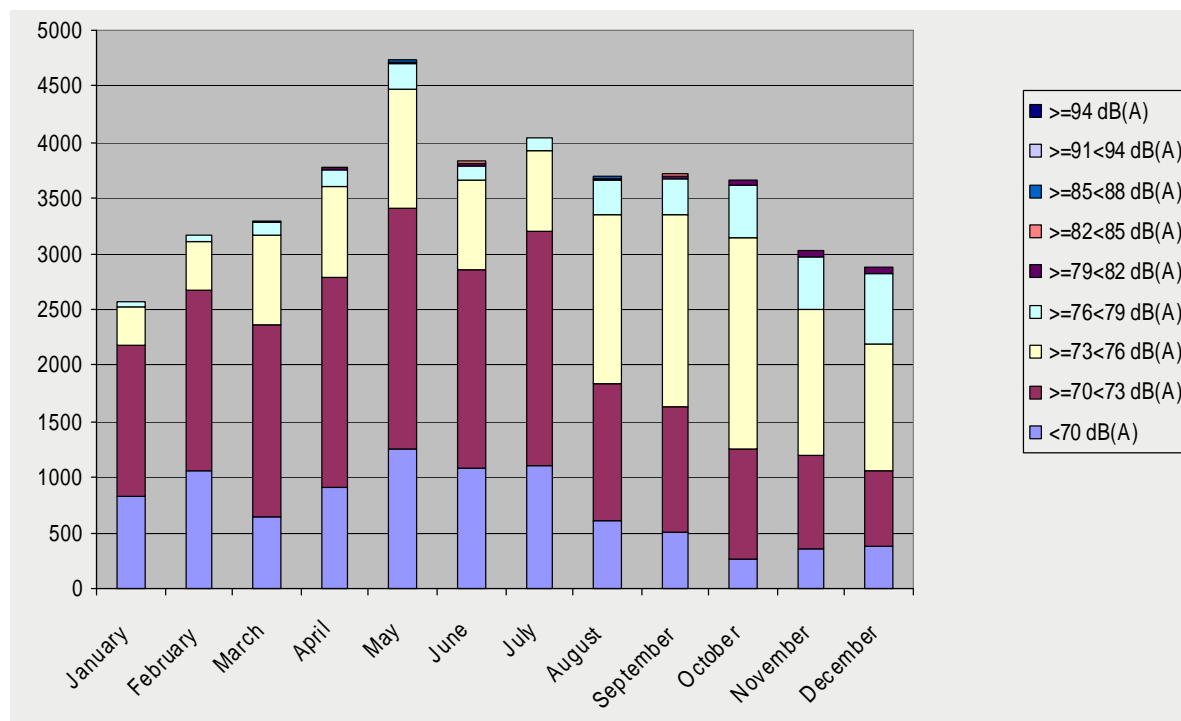
The Topsonic Noise & Track Monitoring system has been operational for 100% of the time during 2008 although a temporary loss of the radar link between NATS and the Topsonic monitoring system (due to the closure of West Drayton) occurred between 25<sup>th</sup> April and 9<sup>th</sup> June 2008. New features and system enhancements continue to improve the functionality and capabilities available to the Airfield Environment Office and the Topsonic system has been utilised in compiling the details within this report.

### 5.3. Daytime Noise Levels

The following table identifies maximum daytime noise levels recorded by departing aircraft at the fixed noise monitoring terminals between the hours of 06:00 and 23:00 local time, Monday to Saturday and from 07:00 until 23:00 on Sunday.

(Any aircraft exceeding the Daytime Noise Violation Limit of 94dB(A) 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)	
January	825	1,353	344	45	8	3	3	0	0	0	2,581
February	1068	1,598	445	50	6	4	0	0	0	0	3,171
March	643	1,718	795	120	18	4	0	0	0	0	3,298
April	918	1,861	825	151	11	3	4	0	0	0	3,773
May	1257	2,154	1,063	217	24	10	3	1	0	0	4,729
June	1082	1,780	791	137	25	3	1	0	0	0	3,819
July	1092	2,117	717	101	6	3	0	0	0	0	4,036
August	607	1,228	1,508	312	28	0	1	0	0	0	3,684
September	504	1,129	1,714	330	23	6	2	0	0	0	3,708
October	258	990	1,895	478	37	3	1	3	0	0	3,665
November	366	827	1,315	459	54	7	0	0	0	0	3,028
December	386	666	1,147	620	55	3	0	1	0	0	2,878
% Total	21.3%	41.1%	29.6%	7.1%	0.7%	0.1%	0.1%	0.0%	0.0%	0.0%	100%
<b>Total</b>	<b>9,006</b>	<b>17,421</b>	<b>12,559</b>	<b>3,020</b>	<b>295</b>	<b>49</b>	<b>15</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>42,370</b>

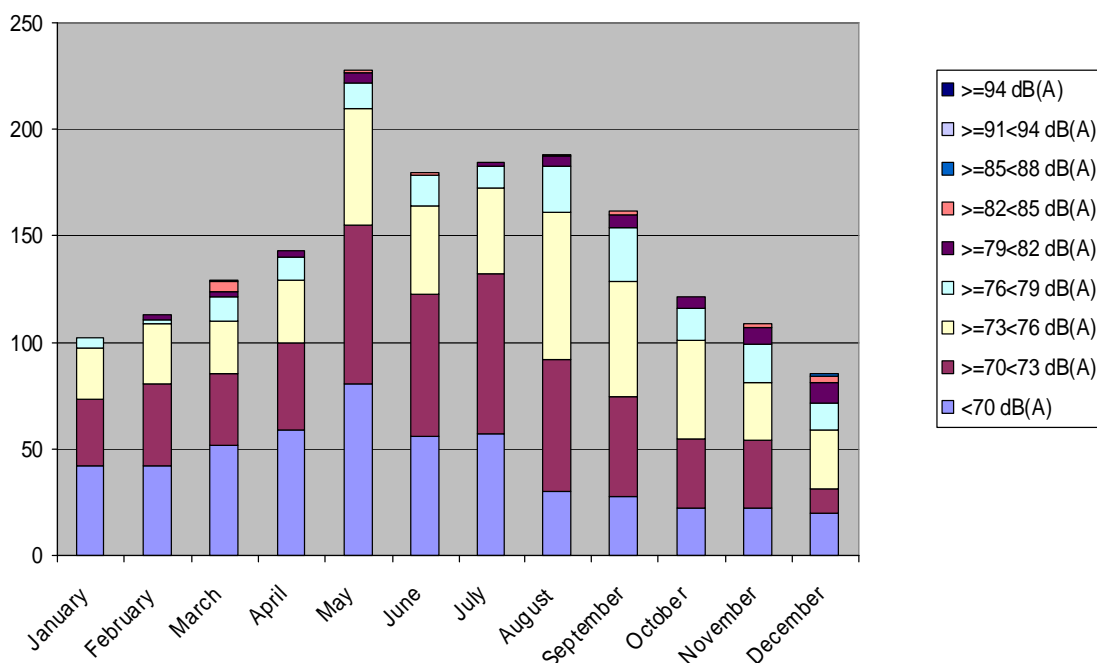


#### 5.4. Night Noise Levels

The following table identifies maximum night time noise levels recorded by departing aircraft at the fixed noise monitoring terminals between the hours of 23:00 and 06:00 local time, Monday to Saturday and until 07:00 on Sunday morning.

(Any aircraft exceeding the Night Noise Violation Limit of 85dB(A) is fined accordingly)

	Number of Departures (Night)										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)	
January	42	32	23	5	0	0	0	0	0	0	102
February	42	38	29	2	2	0	0	0	0	0	113
March	52	33	25	12	2	4	1	0	0	0	129
April	59	41	29	11	3	0	0	0	0	0	143
May	80	75	55	12	4	1	0	0	0	0	227
June	56	67	41	14	0	1	0	0	0	0	179
July	57	75	41	9	2	0	0	0	0	0	184
August	30	62	69	21	5	1	0	0	0	0	188
September	27	48	53	26	6	2	0	0	0	0	162
October	23	32	46	15	6	0	0	0	0	0	122
November	23	31	27	18	8	2	0	0	0	0	109
December	20	11	28	13	9	3	1	0	0	0	85
% Total	29.3%	31.3%	26.7%	9.1%	2.7%	0.8%	0.1%	0.0%	0.0%	0.0%	100%
<b>Total</b>	<b>511</b>	<b>545</b>	<b>466</b>	<b>158</b>	<b>47</b>	<b>14</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,743</b>



## 5.5. Noise Violations

LLAOL operates a noise surcharge policy whereby aircraft landing fees are increased by a certain proportion should the noise level recorded be above the agreed permitted dB(A) level. The daytime noise violation limit of 94dB(A) is in line with the other major London airports whilst the night noise violation limit is 85dB(A), which is lower than the other main London airports .

### For Day Flights

06:00 – 22:59 Local Time (Monday to Saturday)

07:00 – 22:59 Local Time (Sunday)

>94 dB(A) 400% surcharge

### For Night Flights

23:00 – 05:59 Local Time (Monday to Saturday)

23:00 – 06:59 Local Time (Sunday)

>85 – 91 dB(A) 300% surcharge

>91 – 95 dB(A) 500% surcharge

>95 dB(A) 600% surcharge

### 5.5.1. Daytime Noise Violations during 2008

There were no violations of the daytime noise limit in 2008, compared to 1 in 2007.

### 5.5.2. Night Noise Violations during 2008

There were 2 violations of the night noise limit in 2008 (details below), compared to 1 in 2007.

Date / Time (Local)	Aircraft Type	Noise Level	Penalty
06/03/2008 02:28 hrs	MD83 (Ad Hoc Charter)	87.0 dB(A)	300% of runway charge
01/12/2008 01:52 hrs	A300 (MNG Cargo)	85.8 dB(A)	300% of runway charge



## 6. Noise Contours

### 6.1 Leq

Since 1989, the preferred measure of aircraft noise has been the A-weighted equivalent noise level, Leq. This indicator takes account of all the noise energy that occurs over a particular time period and thus takes account of all the aircraft movements, both departures and arrivals, that occurred in that period. In the UK, the noise impact of an airport is primarily described in terms of the LAeq averaged over the 16 hour period from 0700 – 2300 for an average day between the 16th June and 15th September. In addition, London Luton Airport also produces contours for the 8 hour night period between 2300 and 0700 for an average summer night in terms of the LAeq, 8h indicator.

The daytime contours show the LAeq,16h values in 3 dB(A) steps from 57 dB(A) to 72 dB(A). The night contours show the LAeq, 8h values also in 3 dB(A) starting at 48 dB(A). These values relate to guidance provided in Planning Policy Guidance Note 24 – Planning & Noise.

Year on year changes in the noise impact are dependent on changes in the number and type of aircraft that used the airport and also the departure routes flown. In addition, changes in the size and shape of the contours can also depend on differences in the runway usage which in turn depends on the relative proportion of westerly and easterly modes of operation, known as the modal split, which is determined by the prevailing wind direction.

### *The Aircraft Noise Model*

For nearly ten years the noise contours for the airport have been produced using INM (the Integrated Noise Model) which is the method used by many airports in the UK. In 2008 an updated version (7.0) of the model was issued and this was used to derive the 2008 contours. The 2007 contours reported last year were produced using the previous version (6.2a) of the model. In addition, the 2008 contours include slightly different departure tracks to reflect better the actual routes flown by the aircraft. This followed a study comparing the modelled tracks with the actual tracks.

It had been indicated that the latest version of INM would systematically produce larger contours for the same input data compared with version 6.2a. A study was carried out that did indeed find that version 7.0, (with the revised tracks), produced larger contour areas for the same input data, compared with version 6.2a. The results are shown in the tables below.

### Daytime Contour Area

#### INM 7.0 vs. INM 6.2a

L <sub>Aeq,16h</sub>	Area (km <sup>2</sup> )			
	2007		2008	
	INM 6.2a	INM 7.0	INM 6.2a	INM 7.0
>72	1.0	0.9	0.9	0.9
>69	1.6	1.6	1.5	1.5
>66	2.8	2.9	2.7	2.8
>63	5.1	5.4	4.8	5.2
>60	8.8	9.6	8.5	9.4
>57	15.4	17.0	14.9	16.6

### Night Time Contour Area

#### INM 7.0 vs. INM 6.2a

$L_{Aeq,8h}$	Area (km <sup>2</sup> )			
	2007		2008	
	INM 6.2a	INM 7.0	INM 6.2a	INM 7.0
>72	0.5	0.4	0.5	0.4
>69	0.7	0.6	0.7	0.6
>66	1.1	1.0	1.1	1.0
>63	1.8	1.8	1.9	1.9
>60	3.4	3.5	3.4	3.6
>57	6.1	6.6	6.3	6.8
>54	10.8	11.8	11.2	12.2
>51	18.7	20.8	19.5	21.8
>48	33.2	37.0	34.5	38.5

It can be seen that for both the daytime and night time noise contours, version 7.0 gives a larger area, by about 11% for the area within the 57 dB(A) daytime contour and by about 12% for the 48 dB(A) night contour. However, on a like for like basis, there has been a small reduction (about 2.5%) in the daytime contour area from 2007. This reflects a decrease in the total number of movements that occurred in that period. Conversely, again on a like for like basis, there is a small (4%) increase in the night-time contour area, despite a slight decrease in movements. This has been attributed to there being a slightly greater proportion of larger aircraft in the fleet during the summer of 2008 compared with the summer of 2007.

As version 7.0 of INM will be used for future noise contour production, the summer 2008 results used in the rest of this report will be those produced using INM version 7.0. As a result, any year on year comparison (2007-2008) of contour areas and population affected should be treated with caution.

The 2008 results are significantly below the 1984 values and also below the 1999 predicted values which, if exceeded, would require a noise reduction plan to be implemented.

## 6.2 Annual Noise Contours Summer 2008

6.2.1. As indicated above, work has been completed on the production of the annual noise contours for LLAOL for the summer 2008 covering the standard summer period from the 16<sup>th</sup> June to the 15<sup>th</sup> September inclusive.

6.2.2. The daytime results are shown below and are compared with the equivalent results for the previous summer, the base year of 1984, and also the predicted contour for 1999:

**Contour areas (Daytime)**

<b>L<sub>Aeq</sub>, 16 hour Day time</b>	<b>1984 (km<sup>2</sup>)</b>	<b>1999 (km<sup>2</sup>)</b>	<b>2007 (km<sup>2</sup>)</b>	<b>2008 (km<sup>2</sup>)</b>	<b>Difference 2007-2008 (km<sup>2</sup>)</b>
>72	1.63	1.5	1.0	0.9	-0.1
>69	2.80	2.5	1.6	1.5	-0.1
>66	4.86	4.4	2.8	2.8	0.0
>63	9.1	7.3	5.1	5.2	+0.1
>60	17.18	11.8	8.8	9.4	+0.6
<b>&gt;57</b>	<b>31.52</b>	<b>19.6</b>	<b>15.4</b>	<b>16.6*</b>	<b>+1.2</b>

\*11% increase due to INM version change (see 6.1)

6.2.3. The night-time results are shown below and are compared with the results for the previous summer, the base year of 1984, also the predicted contour for 1999:

**Contour areas (Night-time)**

<b>L<sub>Aeq</sub>, 8 hour Night time</b>	<b>1984 (km<sup>2</sup>)</b>	<b>1999 (km<sup>2</sup>)</b>	<b>2007 (km<sup>2</sup>)</b>	<b>2008 (km<sup>2</sup>)</b>	<b>Difference 2007-2008 (km<sup>2</sup>)</b>
>72	0.79	1.1	0.5	0.4	-0.1
>69	1.39	1.8	0.7	0.6	-0.1
>66	2.42	3.0	1.1	1.0	-0.1
>63	4.01	5.2	1.8	1.9	+0.1
>60	7.06	8.3	3.3	3.6	+0.3
>57	13.05	13.2	6.1	6.8	+0.7
>54	24.48	21.6	10.8	12.2	+1.4
>51	44.92	36.0	18.7	21.8	+3.1
<b>&gt;48</b>	<b>85.04</b>	<b>60.6</b>	<b>33.2</b>	<b>38.5*</b>	<b>+5.3</b>

\*12% increase due to INM version change (see 6.1)

6.2.4. The modal split for summer 2008 was 85% westerly / 15% easterly compared with 84% / 16% W/E in summer 2007.

6.2.5. In terms of movements, there was a decrease in the total daytime movements from 28,231 to 27,800 and also a decrease in night-time movements from 4,425 to 4,366 (over the 92 day contour period).

### 6.3 Contour Population Counts

The following information has been utilised to carry out population count analysis on the noise contours:

- i) Ordnance Survey Mastermap Address-Point (2007) data for the study area; and
- ii) Office of National Statistics Census data (2001) for the study area for households and resident population within each census output area intersected by the noise contours. Autocad MAP 2008 was utilised to undertake the analysis.

#### 6.3.1. Procedure

The following describes the steps undertaken to derive the final statistics:

1. Average population per dwelling was calculated for each census output area.
2. A count was made for the Mastermap Address Points lying within each noise contour boundary.
3. The figure in (i) was applied to each dwelling in (ii) to provide an average population for each dwelling.
4. The dwellings and population in (iii) were compared against each contour.
5. The data resulting from step (iv) was summed for each noise contour. The procedure above assumes that the population density within each census output area is homogenous.

### 6.4 Day-Time Contour Results

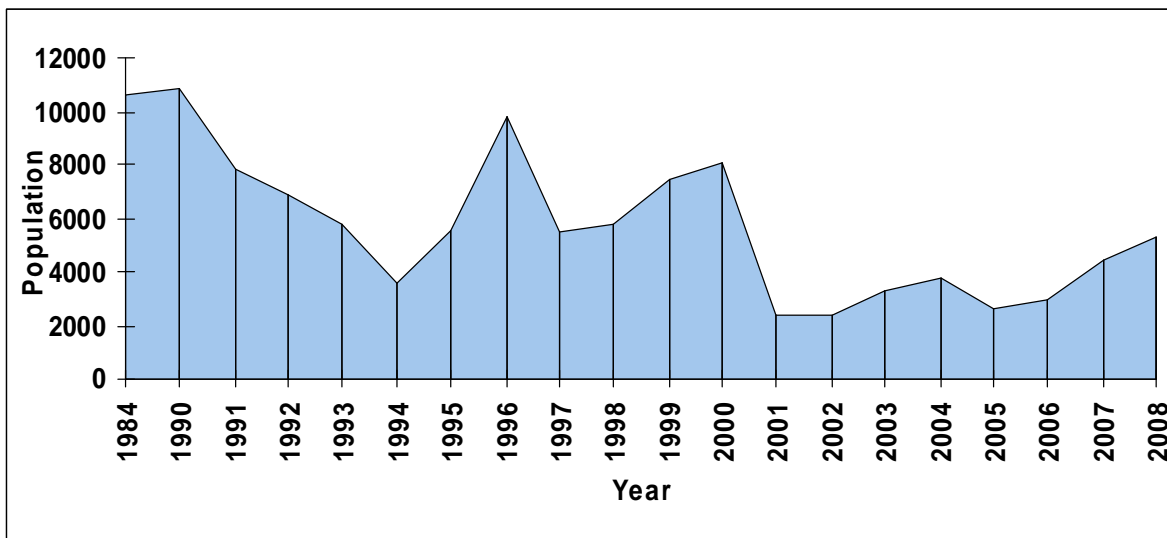
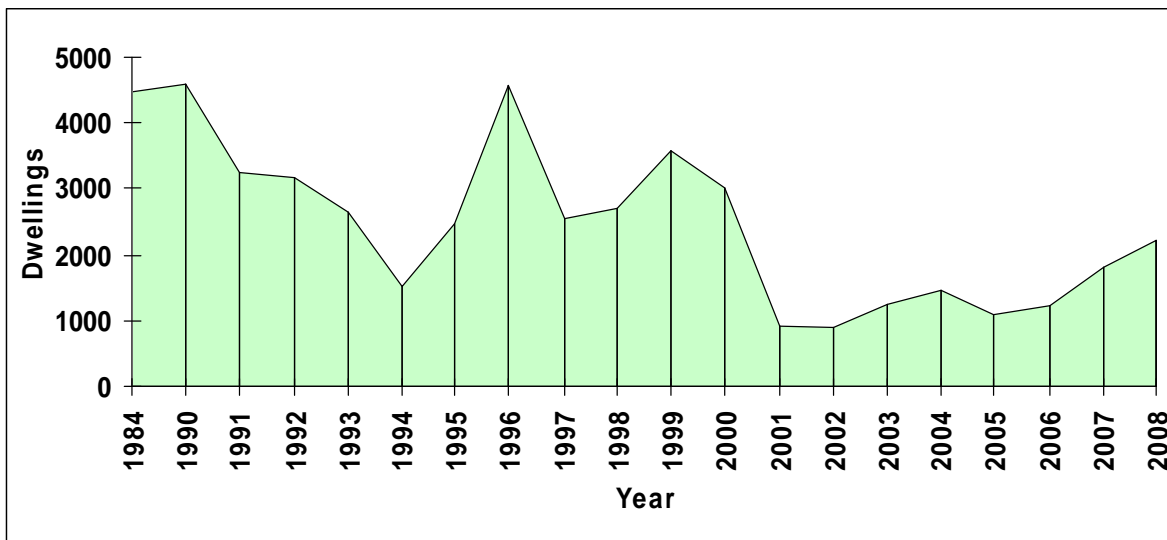
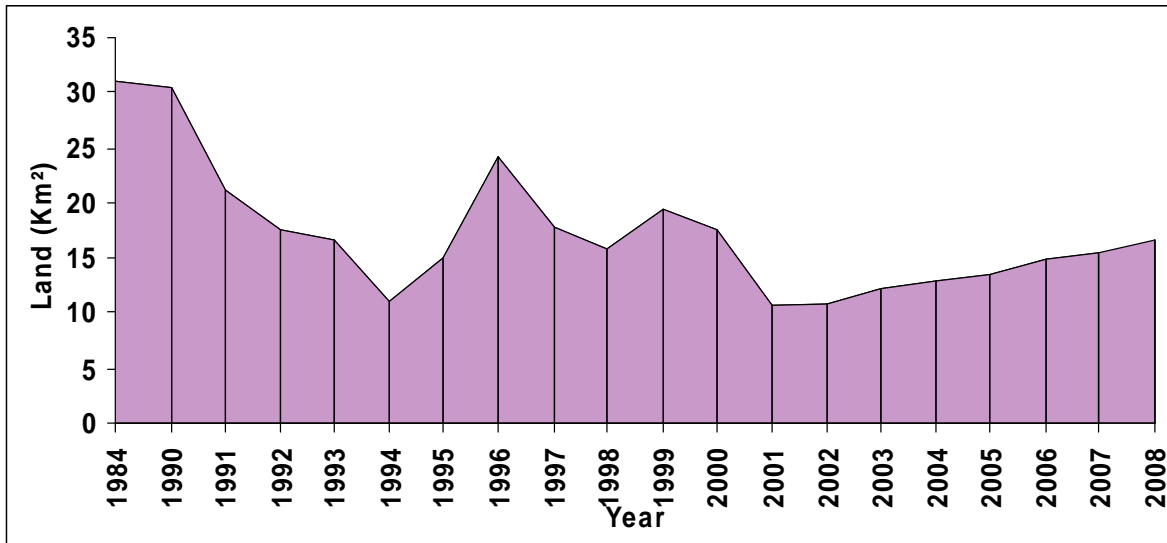
<b>L<sub>Aeq</sub>, 16 hour Day time</b>	<b>2007 Dwellings</b>	<b>2007 Population</b>	<b>2008 Dwellings</b>	<b>2008 Population</b>
>72	0	0	0	0
>69	0	0	0	0
>66	10	23	5	12
>63	32	72	38	86
>60	658	1,664	684	1,731
<b>&gt;57</b>	<b>1,831</b>	<b>4,431</b>	<b>2,203</b>	<b>5,295</b>

### 6.5 Night-Time Contour Results

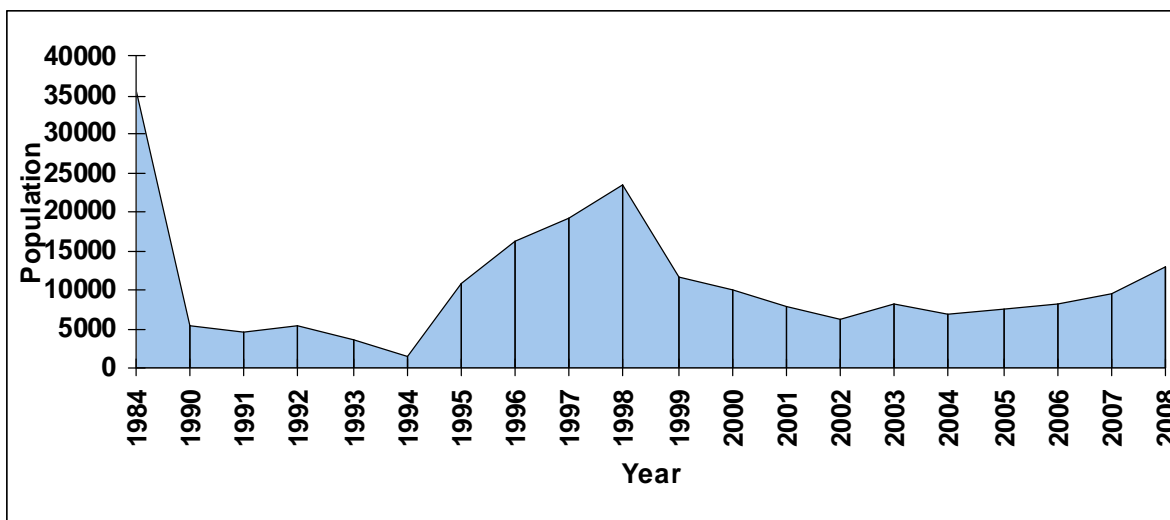
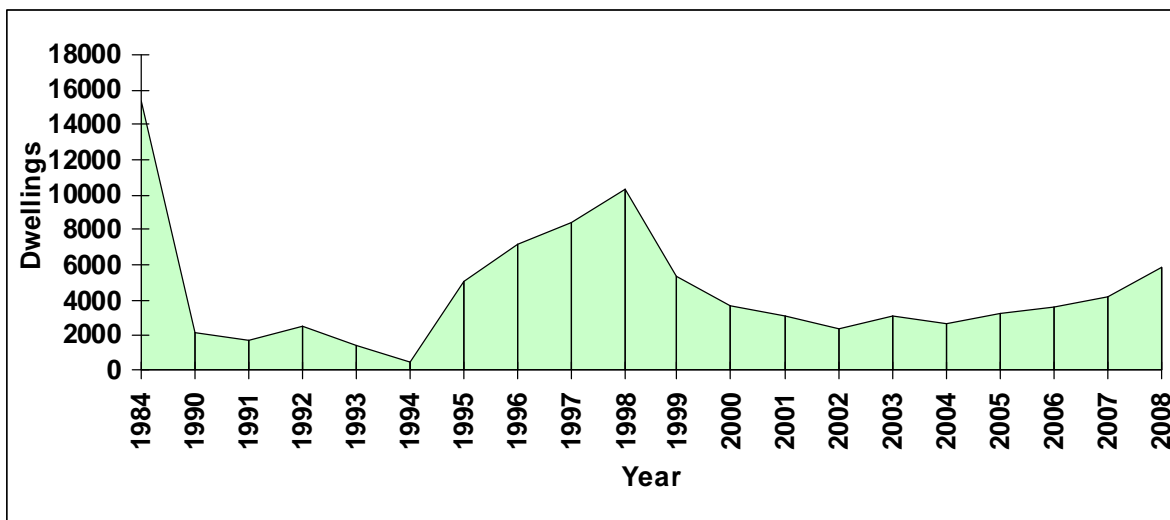
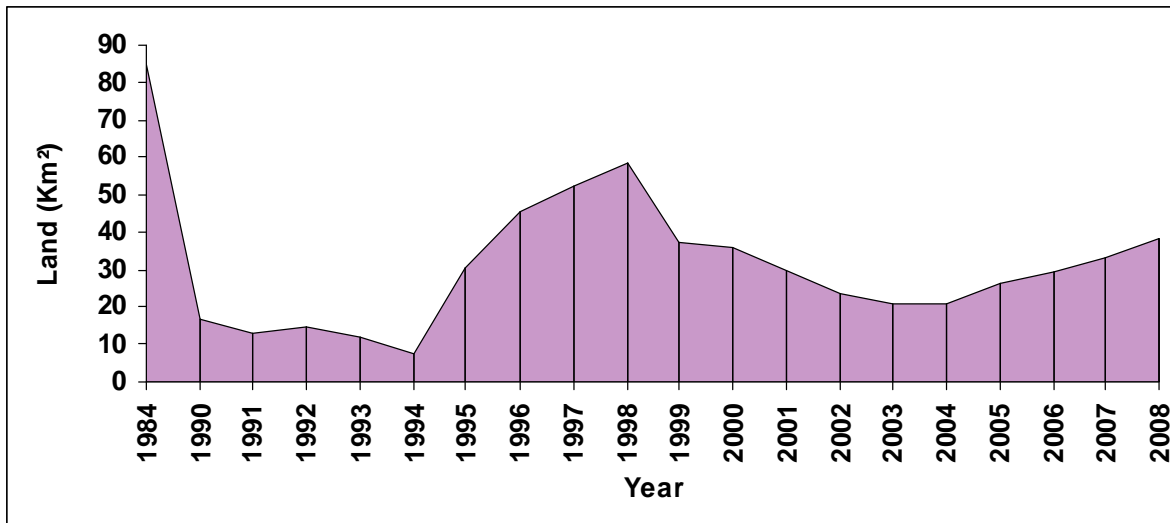
<b>L<sub>Aeq</sub>, 8hour Night time</b>	<b>2007 Dwellings</b>	<b>2007 Population</b>	<b>2008 Dwellings</b>	<b>2008 Population</b>
>72	0	0	<b>0</b>	<b>0</b>
>69	0	0	0	0
>66	0	0	0	0
>63	1	3	0	0
>60	15	35	18	38
>57	153	396	266	662
>54	762	1,923	966	2,393
>51	2,034	4,913	2,857	6,607
<b>&gt;48</b>	<b>4,224</b>	<b>9,588</b>	<b>5,844</b>	<b>12,859</b>

In the above tables the results for households and resident populations are cumulative, i.e. values presented for larger contours (geographically) include the values for those contours within them.

## 6.6 Noise Impact Within 16-Hour (Day) Leq Contours

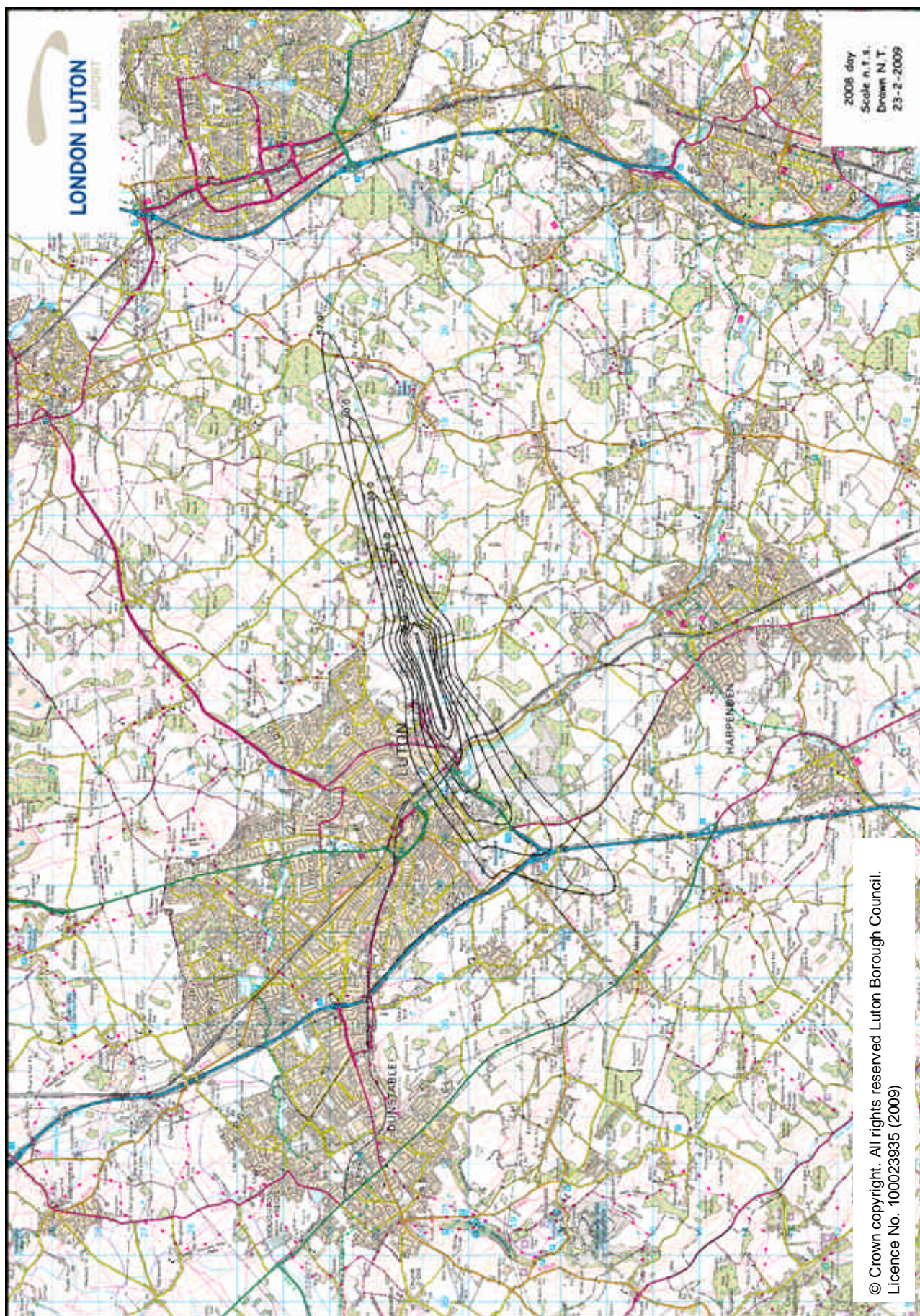


## 6.7 Noise Impact Within 8-Hour (Night) Leq Contours



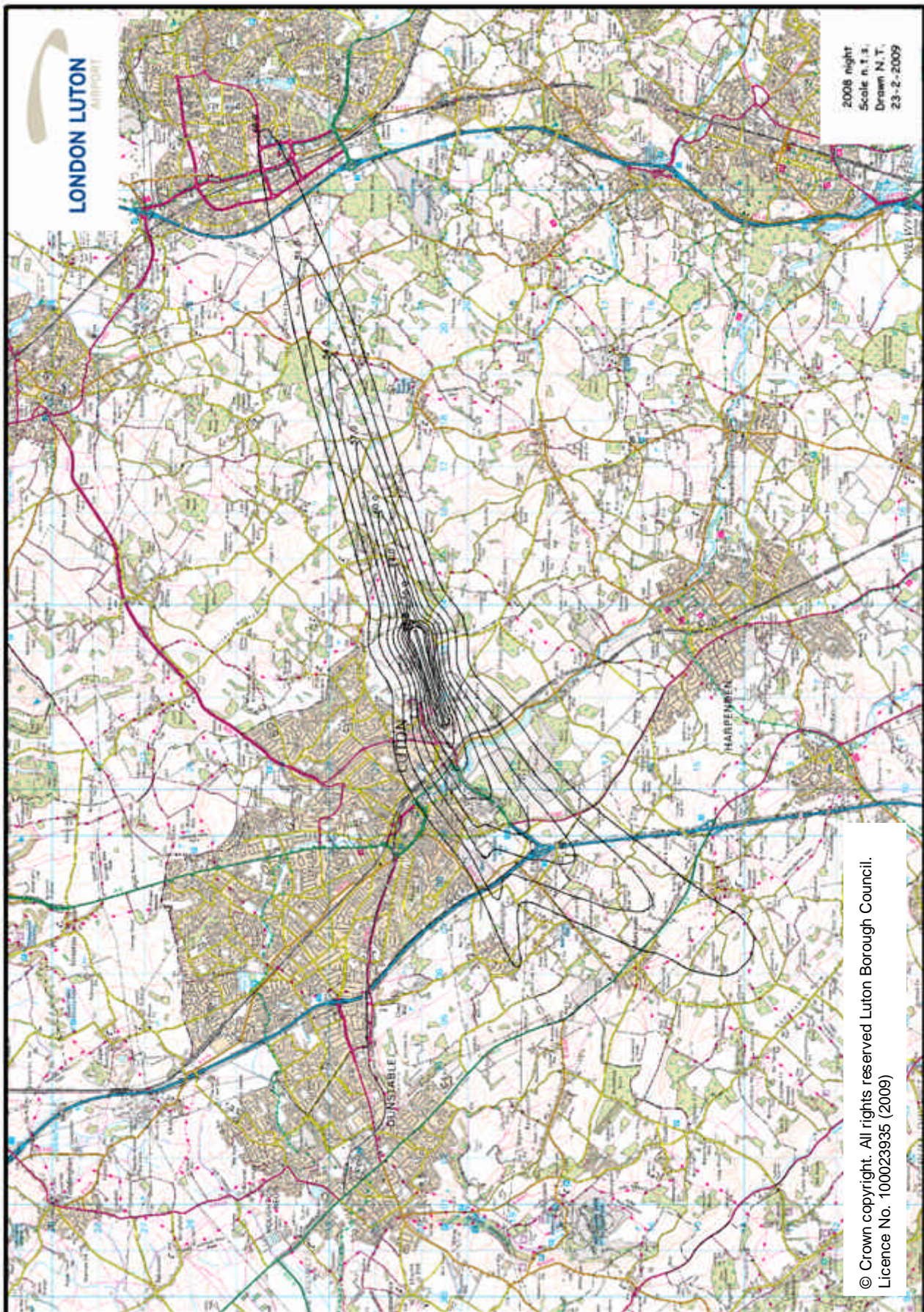


## 6.8 Annual Day Noise Contours 2008



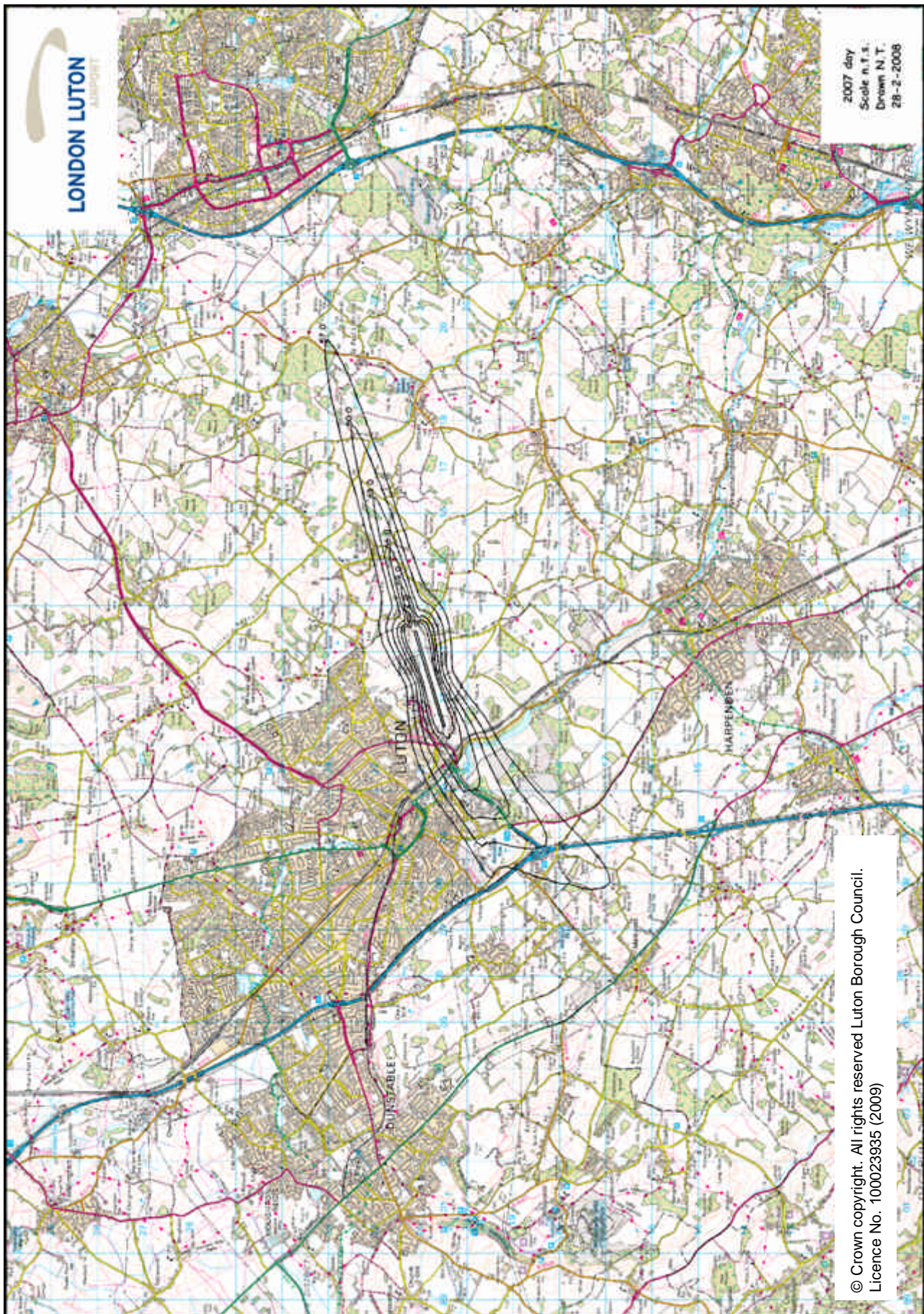


## 6.9 Annual Night Noise Contours 2008



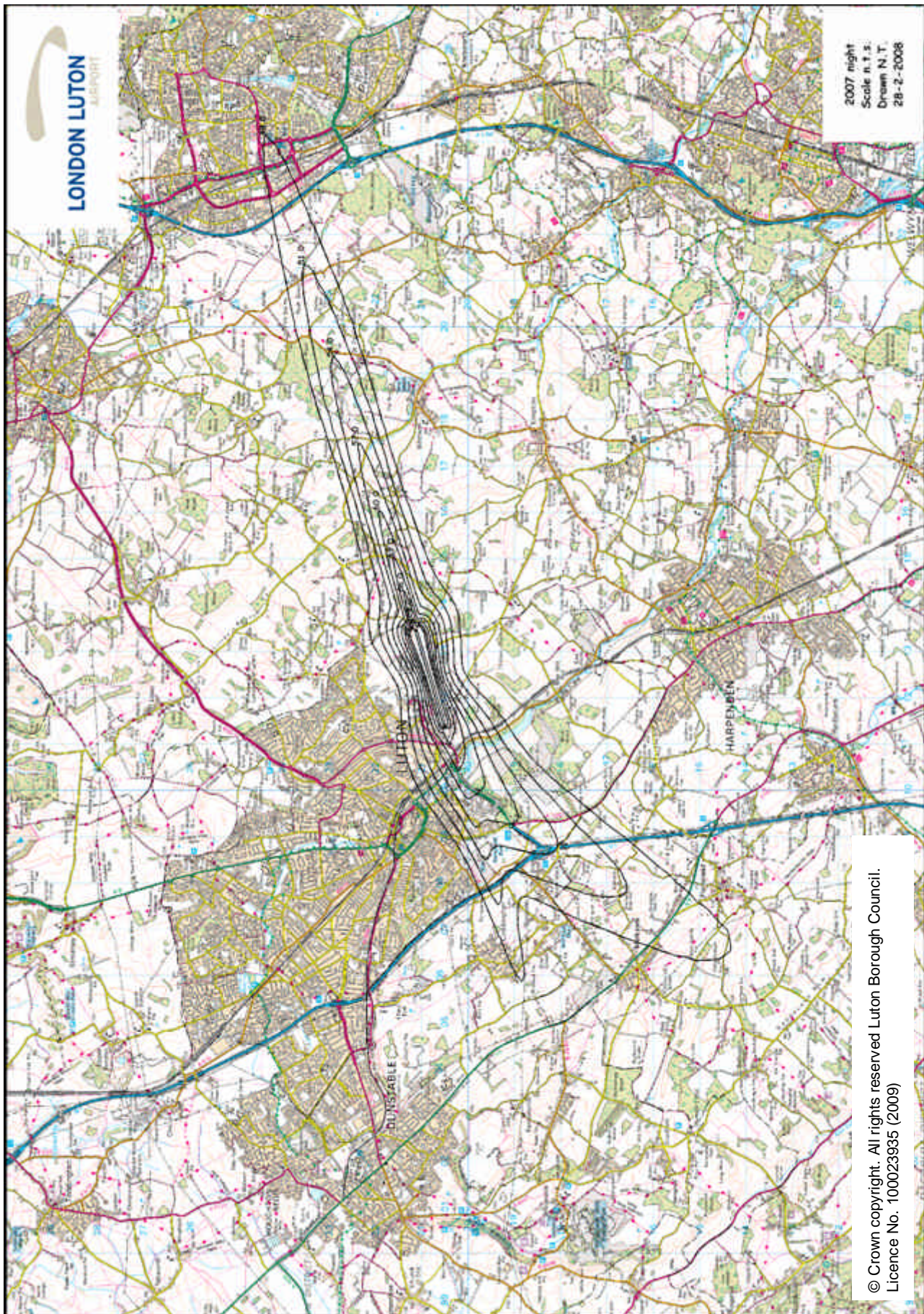


## 6.10 Annual Day Noise Contours 2007





## 6.11 Annual Night Noise Contours 2007





## 6.12 Quarterly Night Noise Contours

6.12.1. The Night Jet Policy, which became effective from 1<sup>st</sup> April 2002, undertook to provide noise contour information for an average night for each quarter, with the results shown below.

## 6.13 Night Noise Contour Results (km<sup>2</sup>)

L <sub>Aeq</sub> , 8hr Night	Jan – Mar 2007	Jan – Mar 2008	Apr – Jun 2007	Apr – Jun 2008	Jul – Sep 2007	Jul – Sep 2008	Oct - Dec 2007	Oct - Dec 2008
>72	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.3
>69	0.6	0.5	0.7	0.6	0.7	0.6	0.6	0.5
>66	0.8	0.8	1.0	1.0	1.1	1.0	0.9	0.7
>63	1.4	1.4	1.7	1.7	1.8	1.8	1.5	1.2
>60	2.4	2.6	2.9	3.1	3.3	3.5	2.6	2.3
>57	4.4	4.9	5.4	6.0	6.1	6.6	4.7	4.3
>54	7.9	8.9	9.8	11.2	10.7	12.0	8.5	7.9
>51	13.6	15.7	17.4	20.0	18.5	21.3	15.0	13.9
<b>&gt;48</b>	<b>24.0</b>	<b>27.9</b>	<b>30.1</b>	<b>35.0</b>	<b>32.8</b>	<b>37.9</b>	<b>25.9</b>	<b>25.0</b>
W/E Split (%)	80/20	82/18	58/42	55/45	81/19	77/23	67/33	80/20

6.14 As indicated in paragraph 6.1, the 2008 contours were produced using version 7.0 of INM, whereas the 2007 results were produced using the previous version of INM (6.2a). To enable a year on year comparison, on a like for like basis, the results for 2007 have been produced using version 7.0 of INM. The like for like comparison is shown below.

## 6.15 Night Noise Contour Results (km<sup>2</sup>) – like for like comparison<sup>1</sup>

L <sub>Aeq</sub> , 8hr Night	Jan – Mar 2007	Jan – Mar 2008	Apr – Jun 2007	Apr – Jun 2008	Jul – Sep 2007	Jul – Sep 2008	Oct - Dec 2007	Oct - Dec 2008
<b>&gt;48</b>	<b>27.5</b>	<b>27.9</b>	<b>34.2</b>	<b>35.0</b>	<b>37.2</b>	<b>37.9</b>	<b>29.2</b>	<b>25.0</b>
W/E Split (%)	80/20	82/18	58/42	55/45	81/19	77/23	67/33	80/20

<sup>1</sup> In the reports presented to the Noise and Track Sub Committee on this issue, the corresponding results for 2007 were estimated values. The results for 2007 shown here were produced by using the relevant 2007 input data in INM version 7.0. There are some slight differences.

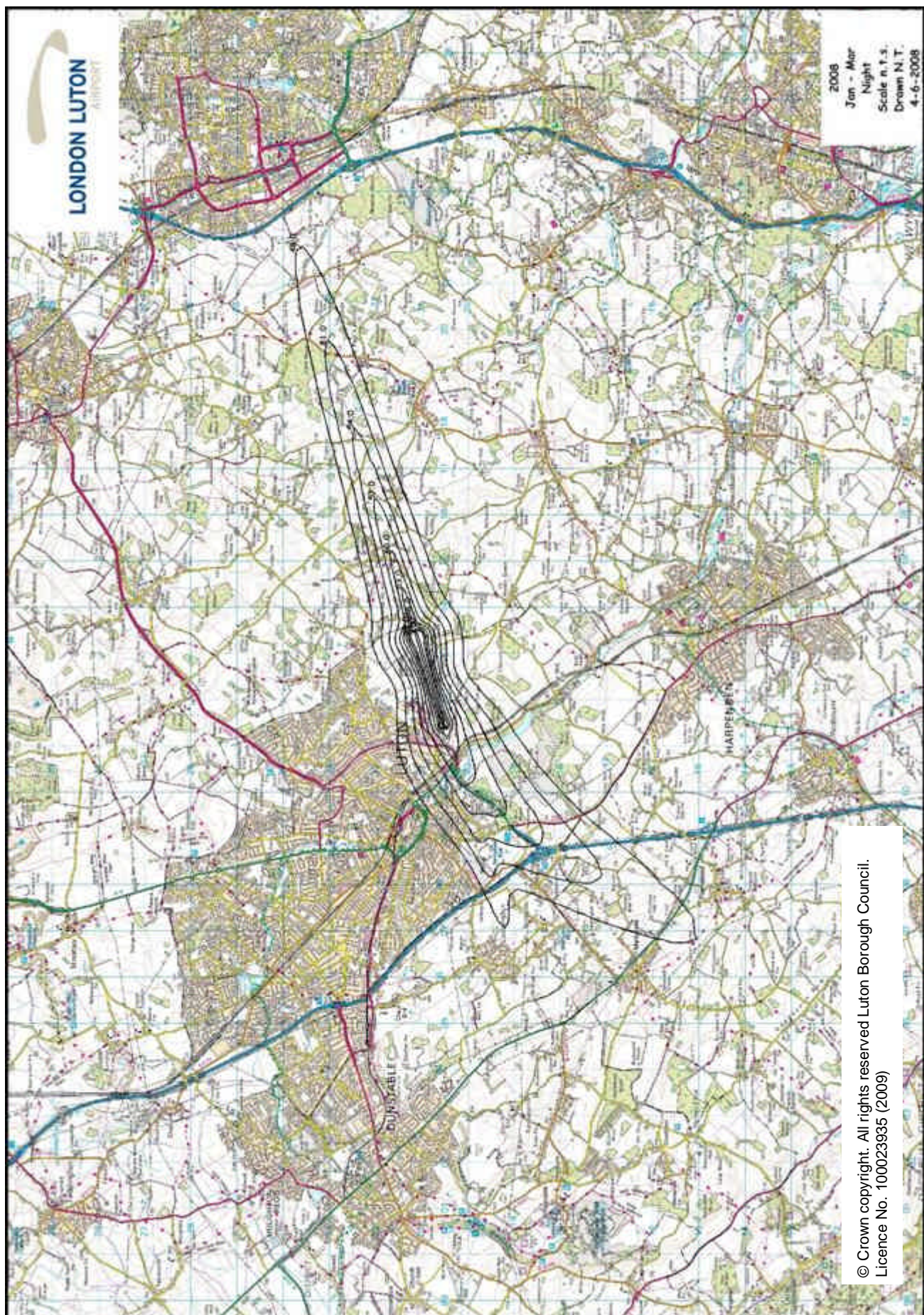
# 6.16 Night Noise Movements by INM Aircraft Type

Aircraft Type	Jan – Mar 2007	Jan – Mar 2008	Apr – Jun 2007	Apr – Jun 2008	Jul – Sep 2007	Jul – Sep 2008	Oct - Dec 2007	Oct - Dec 2008
737300	7	5	8	72	7	64	11	28
737400	0	0	3	4	7	0	0	0
737700	689	713	1,329	1276	1,424	1,504	797	630
737800	554	587	615	713	680	854	584	543
737200	0	0	0	0	0	0	0	0
757RR	113	80	146	82	206	114	82	76
A300	209	194	229	206	212	194	193	169
A320	156	137	321	136	453	276	210	95
A321	55	145	161	169	190	202	153	136
A319	21	16	38	52	47	77	27	105
767300	19	9	9	7	7	7	0	5
767JT9	20	0	5	0	0	0	0	5
CL600	127	146	205	229	196	185	167	120
CNA500*	-	26	49	60	31	54	25	28
GIV*	-	97	113	115	103	81	96	69
HS748A*	-	215	221	256	222	236	211	146
LEAR35	153	189	248	206	187	196	206	133
MU3001*	-	61	111	75	106	51	102	55
SD330	51	37	33	46	44	48	38	6
Other	606	226	192	239	238	187	204	196
<b>Total</b>	<b>2,780</b>	<b>2,883</b>	<b>4,036</b>	<b>3943</b>	<b>4,360</b>	<b>4,330</b>	<b>3,116</b>	<b>2,545</b>

\* Denotes aircraft included within the "Other" category before April - June 2007

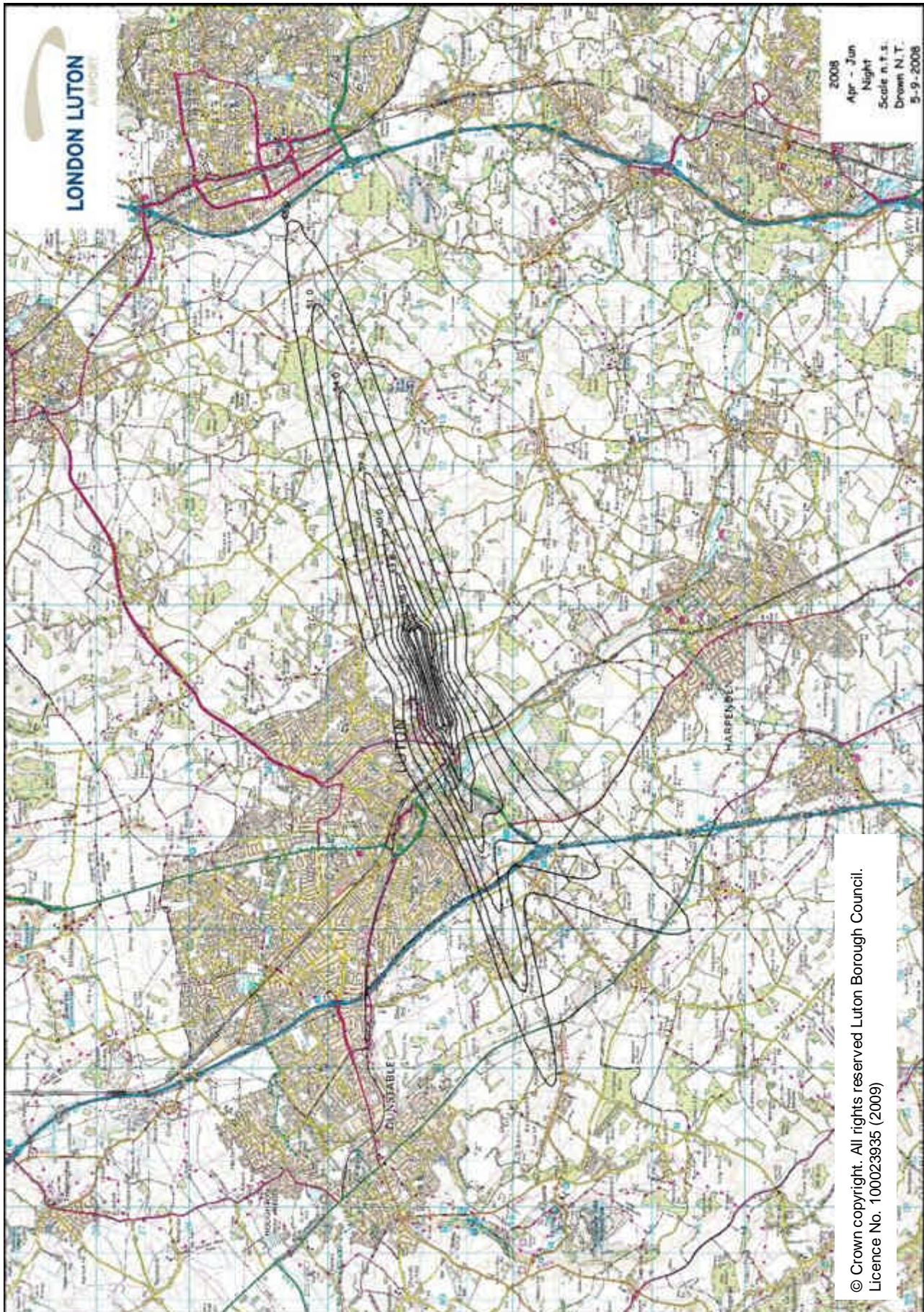


### 6.17 Quarterly Night Noise Contours 2008 Jan – Mar



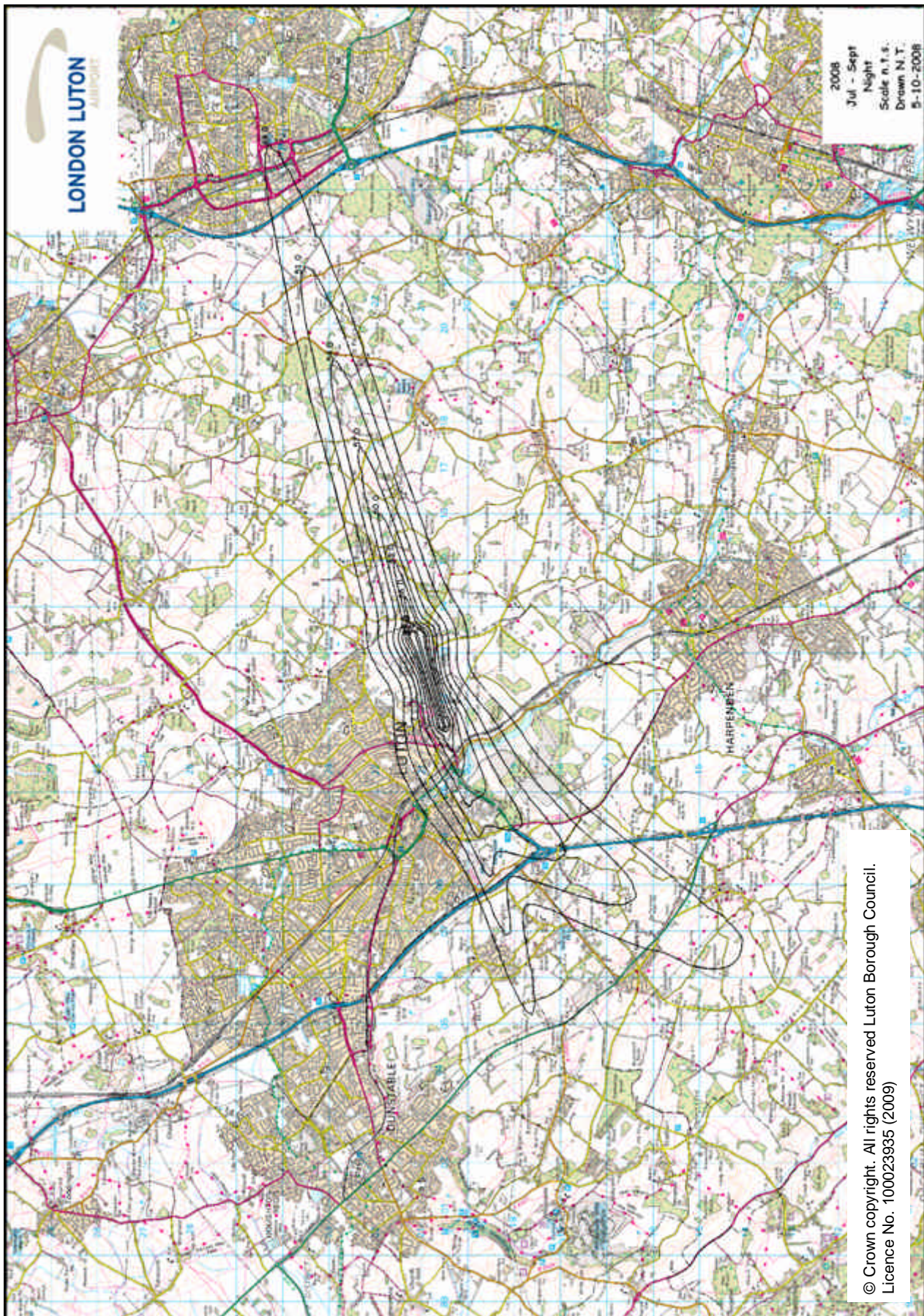


**6.18 Quarterly Night Noise Contours 2008 Apr – Jun**



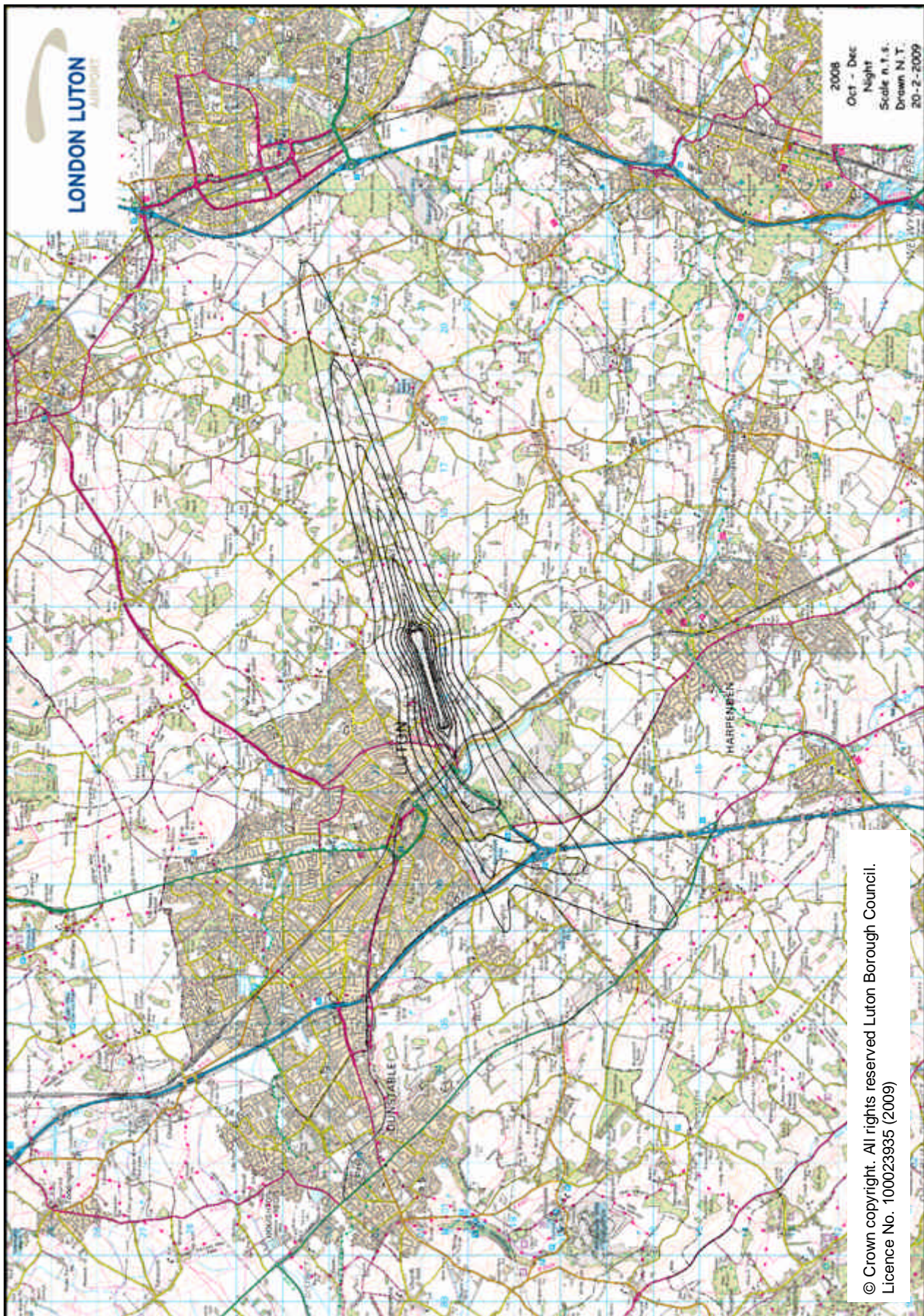


**6.19 Quarterly Night Noise Contours 2008 Jul – Sep**





## 6.20 Quarterly Night Noise Contours 2008 Oct – Dec





## 7. Complaints

### 7.1 Total Complaints relating to LLA aircraft operations

	2007	2008
Total No. of Complaints relating to LLA aircraft operations	1,213	1,174
No. of Complainants	465	544
No. of Events (eliciting a complaint)	5,480 (1,726 *)	3,175 (1,928 **)
Average No. of Complaints per Complainant	2.6	2.1
Average No. of Events per Complainant	11.8 (3.7 *)	5.8 (3.5 **)
Average No. of Events per Complaint	4.5 (1.4 *)	2.7 (1.6 **)
No. of Aircraft Movements per Complaint	99	100
No. of Aircraft Movements per Event	21 (70*)	37 (61**)

\* Figures excluding 3,754 events reported by 6 individuals in Ayot St Lawrence, Harpenden (3), Hemel Hempstead and Tring.

\*\* Figures excluding 1,247 events reported by 4 individuals in Ayot St Lawrence, Harpenden, Hemel Hempstead and Tring. (N.B. A further 2,745 events reported by one individual in Harpenden have been logged as general disturbance and frequency complaints (both day and night).

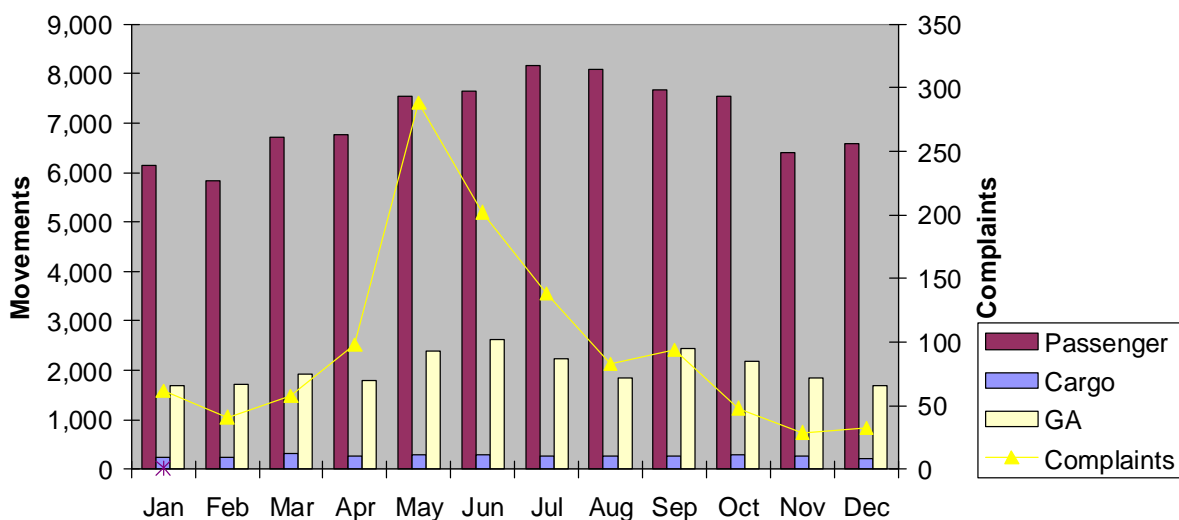
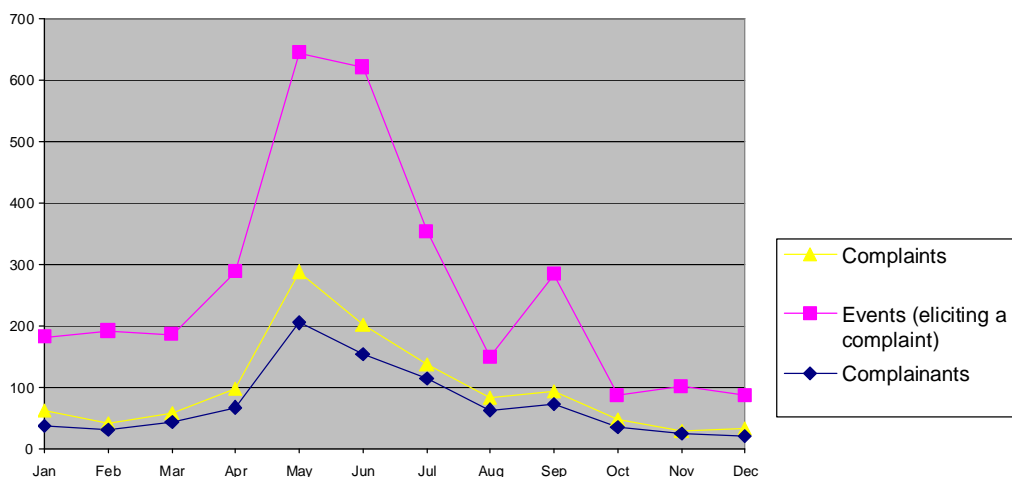
(Where a high proportion of events originate from one or more sources, these are identified in the above table).

- 7.1.1. During 2008 a total of 1,174 complaints (on average 3 complaints per 24 hours) relating to LLA aircraft operations were received by the Airfield Environment Office, compared with 1,213 in 2007.
- 7.1.2. Within this number of complaints it should be noted that an annual total of 1,286 helicopter movements (on average 2 helicopter rotations at the airport per day) resulted in 119 complaints, primarily from the north Harpenden/Kinsbourne Green area. However, this amounts to a 66% reduction in the number of helicopter complaints following the introduction of new helicopter operating procedures at the end of November 2007.
- 7.1.3. A further 258 complaints (1,273 events) not attributable to LLA traffic were received throughout 2008, compared with 256 (686 events) last year. 158 of these complaints (61%) related to non-LLA helicopters operating to/from other airfields.
- 7.1.4. A total of 544 individuals reported concerns to the Airfield Environment Office during the year, in comparison with 465 in 2007. Statistics identify that 379 of the complainants (70%) contacted the airport only once during the year and that 256 individuals (47%) were reporting concerns for the first time. (Of these first time complainants 39% made contact during the period incorporating the NATS TCN Consultation, with 138 of the new contacts originating from Caddington, the Chesham/Wendover/Gt Missenden area, Stevenage/Walkern, Wheathampstead and Whitwell. During the consultation period a number of Public Meetings were held concerning the NATS proposals for new flightpaths in the London area, raising general awareness of current aircraft operations.
- 7.1.5. Within the 1,174 complaints received during the year, a total of 3,175 events (eliciting a complaint) were listed, compared to 5,480 events in 2007. It should be noted that 39% of reported events in 2008 (1,247) were received from just 4 individuals, one in Ayot St Lawrence (239), one in Harpenden (257), one in Hemel Hempstead (263) and one in Tring (488).
- 7.1.6. During 2008 a further 2,745 events were reported by one individual in Harpenden but, in agreement with the LLACC, these events relating to general noise disturbance (on average 40-50 events per week over a continuous 2 year period) have not been included in this year's annual statistics although a total of 56 complaints from this complainant, reporting general disturbance and frequency (both day and night), have been incorporated in all statistics.

## 7.2 Monthly complaint statistics

	Complaints	Events (eliciting a complaint)	Complainants
Jan	62	182	37
Feb	41	192	31
Mar	58	186	43
Apr	98	288	67
May	288	644	205
Jun	202	621	153
Jul	138	354	114
Aug	83	149	63
Sep	94	284	72
Oct	48	87	35
Nov	29	101	24
Dec	33	87	21
<b>Totals</b>	<b>1,174</b>	<b>3,175</b>	<b>544*</b>

\* This total number of complainants annually takes into account a number of repeat complainants.



### 7.3 Breakdown of Reported Disturbance

It is important to note that the reasons detailed below are those reported by the complainant and not the result of any subsequent investigation.

Disturbance	Day	Night	General*	Total
Aircraft Noise	607	224	156	<b>987</b>
Off Track	286	7	13	<b>306</b>
Low-Flying	152	13	9	<b>174</b>
Frequency	148	19	48	<b>215</b>
Safety	6	0	0	<b>6</b>
Vibration	3	0	0	<b>3</b>
Air Quality	2	0	0	<b>0</b>

*It should be noted that complaints received may relate to more than one type of disturbance (i.e. noisy, low and off track) and the above figures will therefore not correlate to the total number of complaints.*

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

### 7.4 Areas of Reported Concerns

Reported Concerns	No.of Complaints	% of Total Complaints
Departures - Westerly	314	27%
Departures - Easterly	238	20%
Arrivals - Easterly	211	18%
Frequency/Gen. Disturbance	157	13%
Helicopters	119	10%
Arrivals - Westerly	57	5%
Go-arounds	28	2%
Ground Noise	21	2%
Engine Ground Runs	14	1.2%
Alleged Air Prox*	6	0.5%
Weather Avoidance	4	0.3%
Air Quality	2	0.2%
Training Flights	2	0.2%
Positioning Flight	1	0.1%
<b>Total</b>	<b>1174</b>	<b>100%</b>

*\* Upon investigation the aircraft involved were found to have maintained sufficient separation distance and safety was not compromised at any time.*

7.4.1. During the year 201 individuals reported a total of 381 complaints concerning night disturbance from LLA operations (on average just over 1 complaint per 24 hours). This amounts to 32% of all complaints received in 2008 (in comparison with 26% in 2007). A further 65 complaints reporting night disturbance related to overflights of helicopters and aircraft operating to or from other airports.

7.4.2. Within the 314 complaints concerning westerly departures 180 were of a general nature, 92 to specific aircraft following the Clacton/Dover/Detling route, 22 to aircraft on the Compton route and 19 related to aircraft on the Olney 1B route. One other complaint involved a positioning flight following an off-airways flight route.



7.4.3. Of the 238 complaints attributed to easterly departures 33 were of a general nature, 196 to aircraft following the Compton heading, 6 to aircraft on the Olney flight route and 3 related to aircraft on the Clacton/Dover/Detling heading.

7.4.4. Whilst 152 of the 211 complaints concerning easterly arrivals reported general disturbance, 59 related specifically to aircraft on approach to land from the Lorel Reporting Point.

## 7.5 Nature of Disturbance

7.5.1. **Noise** was cited as a main disturbance in 84% of complaints and 26% of complaints involved aircraft being perceived as **off-track**. In 18% of complaints the **frequency** of operations was reported and concerns of aircraft flying **low** were reported in 15% 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).

7.5.2. Of the 1,174 complaints relating to LLA aircraft operations registered during the year 564 complaints (48%) were clearly correlated to a specific aircraft type although many complaints were of a general nature.

## 7.6 Complaints by Aircraft Type

Aircraft Type*	No. of correlated complaints	% of Total complaints	Annual No. of Movements of Aircraft Type	Movements of Aircraft Type per correlated complaint**
Helicopter	119	10.1%	1,286	11
A300 (MNG Cargo/DHL)	119	10.1%	1,793	15
A320/A321 (Monarch/Wizzair)	73	6.2%	11,400	156
B737-700 (easyJet/Sky Europe)	69	5.9%	39,966	579
B737-800 (Ryanair/Thomsonfly)	24	2.0%	12,723	530
ATP (Atlantic Airlines)	23	2.0%	1,048	46
GLF2/GLF3 (GA)	18	1.5%	171	10
B757 (DHL/Thomsonfly/Monarch)	15	1.3%	1,263	84
B767 (Silverjet/Thomsonfly/GA)	11	0.9%	974	89
MD80/MD83 (GA/Special Charter)	9	0.8%	54	6
A319 (easyJet/GA)	7	0.6%	8,749	1250
B737-200 (GA/Special Charter)	3	0.3%	84	28
B727 (GA)	3	0.3%	32	11
B737-300 (Thomsonfly)	2	0.2%	841	421
Other Private Aircraft	31	2.6%	18,995	613
Other Passenger Operations	15	1.3%	10,610	707
Other Cargo Operations	14	1.2%	1,199	86
Other Aircraft Types	9	0.8%	6,673	741
<b>Total</b>	<b>564</b>	<b>48.0%</b>	<b>117,861</b>	<b>159</b>

\* Operators in brackets refer to the predominant operator(s) of aircraft type.

\*\* This is the total number of aircraft movements per correlated complaint  
i.e. 117,861 movements / 564 correlated complaints = 159

## 7.7 Origin of Complaints

The chart below identifies the areas around the Airport from which complaints were received.

Location	Complaints	Events* (eliciting a complaint)	Complainants	Average complaints per complainant	Average Events per Complainant
Aldbury	5	13	3	1.7	4.3
Aley Green	5	3	2	2.5	1.5
Ardeley	6	1	1	6.0	1.0
Aylesbury	1	0	1	1.0	0.0
Ayot St Lawrence	18	241	6	3.0	40.2
Ballinger	2	2	2	1.0	1.0
Barton-le-Clay	3	1	3	1.0	0.3
Bendish	4	2	2	2.0	1.0
Berkhamsted	12	12	10	1.2	1.2
Bierton	1	2	1	1.0	2.0
Biggleswade	1	0	1	1.0	0.0
Blackmore End	7	11	5	1.4	2.2
Breachwood Green	11	8	6	1.8	1.3
Buckland Common	3	2	2	1.5	1.0
Caddington	56	55	43	1.3	1.3
Chesham	2	3	2	1.0	1.5
Cholesbury	2	2	2	1.0	1.0
Clophill	2	0	1	2.0	0.0
Cockernhoe	1	1	1	1.0	1.0
Codicote	3	2	2	1.5	1.0
Cottered	1	0	1	1.0	0.0
Crafton	1	0	1	1.0	0.0
Dagnall	5	2	2	2.5	1.0
Dunsmore	9	13	5	1.8	2.6
Dunstable	2	0	2	1.0	0.0
Eaton Bray	15	21	5	3.0	4.2
Edlesborough	2	3	1	2.0	3.0
Flamstead	22	143	7	3.1	20.4
Gaddesden Row	4	4	3	1.3	1.3

Location	Complaints	Events* (eliciting a complaint)	Complainants	Average complaints per complainant	Average Events per Complainant
Great Missenden	6	10	6	1.0	1.7
Gubblecote	2	5	2	1.0	2.5
Gustard Wood	1	0	1	1.0	0.0
Harpenden	252	707	66	3.8	10.7
Hastoe	1	0	1	1.0	0.0
Heath & Reach	3	12	2	1.5	6.0
Hemel Hempstead	43	268	4	10.8	67.0
Hitchin	12	11	10	1.2	1.1
Ivinghoe	3	3	3	1.0	1.0
Kensworth	23	67	16	1.4	4.2
Kimpton	28	61	11	2.5	5.5
King's Walden	4	4	1	4.0	4.0
Kinsbourne Green	27	70	6	4.5	11.7
Knebworth	1	0	1	1.0	0.0
Langley	1	0	1	1.0	0.0
Leighton Buzzard	11	5	7	1.6	0.7
Little Gaddesden	28	39	16	1.8	2.4
Long Marston	2	2	2	1.0	1.0
Lower Gravenhurst	1	0	1	1.0	0.0
Luton	77	79	37	2.1	2.1
Markyate	15	6	15	1.0	0.4
Marsworth	1	68	1	1.0	68.0
Mentmore	12	88	4	3.0	22.0
Nettleden	1	0	1	1.0	0.0
Pepperstock	34	55	4	8.5	13.8
Peter's Green	1	1	1	1.0	1.0
Pitstone	6	2	4	1.5	0.5
Preston	1	1	1	1.0	1.0

Location	Complaints	Events* (eliciting a complaint)	Complainants	Average complaints per complainant	Average Events per Complainant
Princes Risborough	3	0	2	1.5	0.0
Redbourn	10	9	8	1.3	1.1
Ringshall	2	2	1	2.0	2.0
Royston	2	1	2	1.0	0.5
Rushden	2	2	1	2.0	2.0
Sandon	1	0	1	1.0	0.0
Sandy	1	0	1	1.0	0.0
Silsoe	1	0	1	1.0	0.0
Slapton	14	27	5	2.8	5.4
Slip End	17	23	7	2.4	3.3
St Albans	16	33	12	1.3	2.8
St Leonards	3	3	3	1.0	1.0
Stanbridge	1	0	1	1.0	0.0
Steeple Morden	2	4	2	1.0	2.0
Stevenage	13	7	13	1.0	0.5
Stewkley	1	1	1	1.0	1.0
Studham	18	39	8	2.3	4.9
Tewin Wood	2	5	1	2.0	5.0

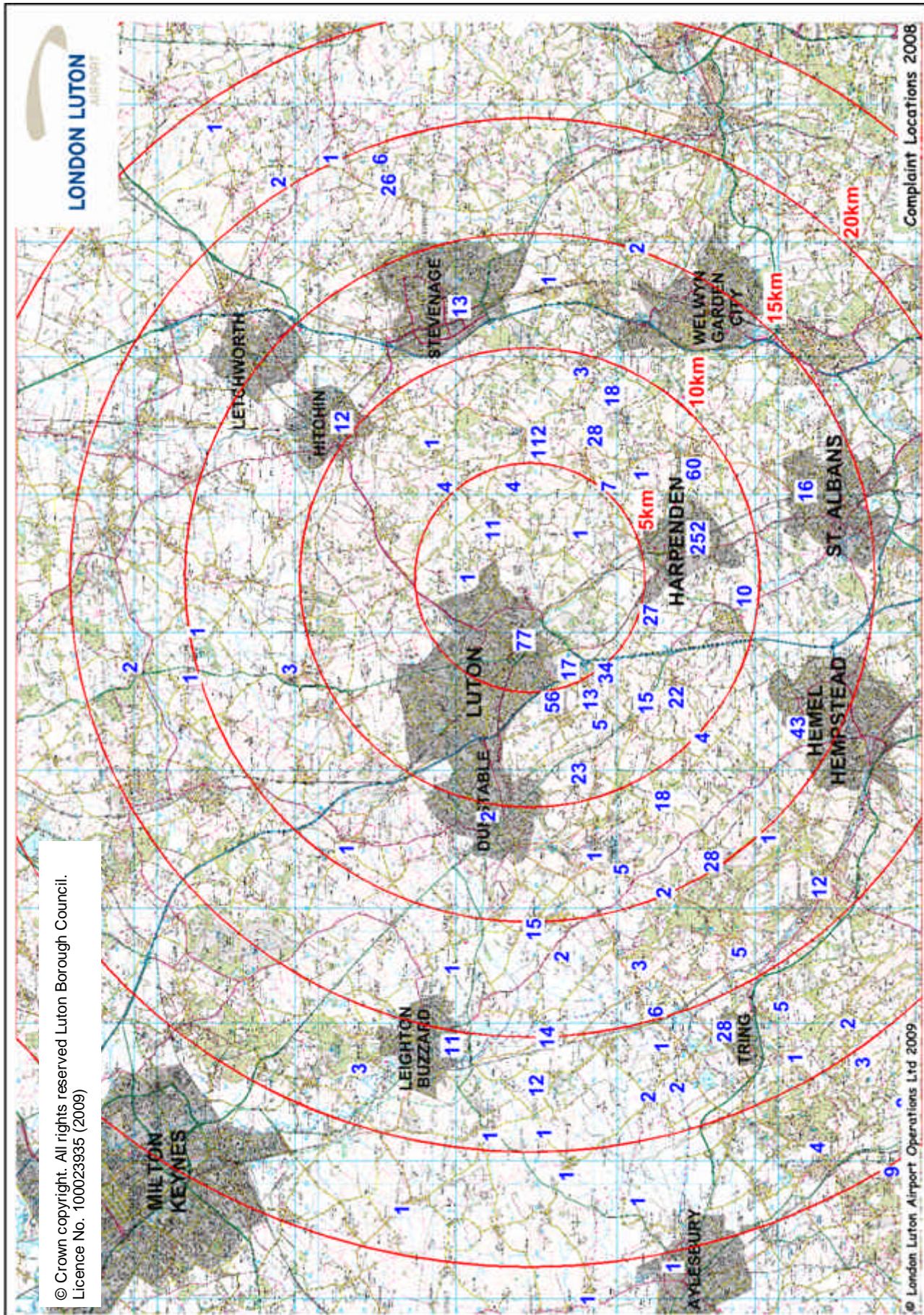
Location	Complaints	Events* (eliciting a complaint)	Complainants	Average complaints per complainant	Average Events per Complainant
The Lee, Bucks	8	9	4	2.0	2.3
Toddington	1	0	1	1.0	0.0
Tring	28	555	11	2.5	50.5
Walkern	26	7	21	1.2	0.3
Weedon	1	1	1	1.0	1.0
Wendover	4	4	2	2.0	2.0
Whaddon	1	0	1	1.0	0.0
Wheat-hampstead	60	88	29	2.1	3.0
Whipsnade	1	1	1	1.0	1.0
Whitwell	112	220	41	2.7	5.4
Wigginton	5	8	2	2.5	4.0
Wing	1	0	1	1.0	0.0
Wingrave	1	2	1	1.0	2.0
Woodside	13	13	10	1.3	1.3
<b>Totals</b>	<b>1174</b>	<b>3,175 (1,928)**</b>	<b>544</b>	<b>2.2</b>	<b>5.8 (3.5)**</b>

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

\*\* Figures excluding 1,247 events reported by four individuals, one in Ayot St Lawrence (239), one in Harpenden (257), one in Hemel Hempstead (263) and one in Tring (488). (N.B. A further 2,745 events reported by one individual in Harpenden have been logged as general disturbance and frequency complaints (both day and night) in all statistics



## 7.8 Location of Complaints





## 7.9 Method of Complaint Receipt

How Received	% of Total Complaints
E-mail	51%
Telephone	45%
Fax	3%
Letter	1%

Any concerns relating to LLA aircraft operations can be reported to the Airfield Environment Office by the following means:

**Postal Address:**       **Airfield Environment Office**  
**London Luton Airport**  
**Navigation House**  
**Airport Way**  
**Luton**  
**Beds**  
**LU2 9LY**

**Direct Telephone:**   **(01582) 395382 (24 hours)**

**Direct Fax:**         **(01582) 395500**

**Direct email\*:**       **[noise@ltn.aero](mailto:noise@ltn.aero)**

\* A link also exists on the [www.london-luton.co.uk](http://www.london-luton.co.uk) website, providing a template for reporting concerns relating to aircraft activity, which is then sent directly to the Airfield Environment Office for logging, investigation and response.

## 7.10 Community Relations

### 7.10.1. Community Visits to the Airport

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

During 2008 the AEO team hosted visits for Councillors or residents from Harpenden, Hitchin, Pepperstock, St. Albans and Wheathampstead. The airport also welcomed a group from P.A.I.N, two NTSC members and a delegation from the Chiltern Countryside Group.

In addition the AEO team gave a demonstration of the Topsonic monitoring system to two groups of LLACC and NTSC members during September. The visits concluded with a trip to the NATS Air Traffic Control Tower.

Throughout the year the Airfield Environment Office was also host to five local students, giving them an insight into the work involved within the department.

### 7.10.2. Airport Visits to the Community

The Airport was invited to attend a number of Luton Borough Council Area meetings/Ward meetings during September/October 2008. Airport staff were available prior to these meetings to raise awareness and to answer any questions concerning the 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.

## 8. *Employment*

### 8.1. Introduction

- 8.1.1 Employment at and surrounding London Luton Airport (LLA) contributes significant economic benefits to Luton as a whole and to the sub-region. A large number of businesses are based in Luton due to the presence of the Airport. Thus, any analysis of the Airport's impact upon the locality needs to contain an economic perspective, and this includes employment. A survey of employers within and around the Airport boundary has been conducted, the results of which are summarised below.

### 8.2. Methodology And Response Rates

- 8.2.1 Over the last two years, the majority of survey administration has been carried out by LLAOL, with all analysis being undertaken by the Research and Intelligence Team at Luton Borough Council. A questionnaire (compiled by the Borough Council in conjunction with LLAOL) was sent out to companies at the Airport with a covering letter signed by the Airport Managing Director.
- 8.2.2 Initial questionnaires with covering letters were sent in July 2008. A reminder letter was sent out approximately one month later to those businesses that had not responded by this date. LLA made direct contact with some companies in order to encourage them to respond to the survey if they had not already done so. Non respondents were chased further by the Airport into November 2008 to maximise the response rate.
- 8.2.3 The questionnaire asked about total employment, the gender and full/part time split of workers, the approximate proportion of workers that lived in Luton, and the principal business activity of the firm. As in 2007, the gender and full/part time split were asked for separately (rather than asking for male full time workers, female full time workers, etc) because it was felt this would make responding to the survey easier and thus result in a higher response rate. 72 valid responses were received this year, from a total of 99 companies surveyed. This represents a response rate of 73%.

**Table 1: Response Rates**

2001	60%
2002	60%
2003	65%
2004	55%
2005	(Survey not undertaken by Luton Borough Council)
2006	64%
2007	72%
2008	73%

Just over half of the firms responding in 2008 also responded in the 2007 survey.

### 8.3. Total Employment (from the Survey)

- 8.3.1. An indication of the level of employment, and changes in employment over time, are important to the assessment of the economic impact of the Airport. The following tables show total employment figures at and around the Airport for those companies that responded to the survey.
- 8.3.2. Table 2 shows the total employment figure for the 72 companies that responded to the survey. All tables show employment by industrial sector, which was self-classified by the companies themselves in a majority of cases.
- 8.3.3. To avoid disclosure and identification of individual companies' employment figures, it has been necessary to suppress figures<sup>2</sup> where there are less than three companies in a sector, and where employment within those categories is below 50 employees. This is denoted by #.

<sup>2</sup> These are suppression techniques based upon those employed by Office for National Statistics (ONS)



**Table 2: Total Employment**

Sector	Total Employment
Forwarding of Freight	77
Hotels and Restaurants	243
Other Supporting Air Transport Activities	921
Non Scheduled Passenger Air Transport	76
Public (Scheduled) Passenger Air Transport	3,773
Renting of Automobiles	#
Retail Trade	427
Tour Operators	#
Travel Agencies	#
Wholesale of Petroleum Products	#
Miscellaneous (Airline/Aviation Related)	907
Miscellaneous (Not Airline/Aviation Related)	101
<b>TOTAL EMPLOYMENT</b>	<b>6,650</b>

- 8.3.4 There were a further 130 employees whose employment was managed by the businesses above or were contractors who work at the Airport for the majority of the year taking the overall total to 6,780. However, it must be noted that of the eleven companies stating they '*manage employees of other companies or contractors working regularly at the airport site*', two failed to provide the number of employees. Both these companies are major employers, therefore it is expected that the total employment figure could be higher.

#### 8.4. **Employment Changes 2007-2008**

- 8.4.1 The tables below illustrate changes in industry sectors between 2007 and 2008.
- 8.4.2 The data used in table 3 is that received from those businesses that responded to both the 2007 and the 2008 survey. This represents 39 firms. This analysis gives an indication of employment change at the Airport over time.

**Table 3 – Changes in Employment 2007-2008** for the 39 companies that responded to both the 2007 and 2008 surveys

Sector	2007	2008	% Change 2007-2008
Transport, Storage and Communication	3,741	4,391	+17%
Miscellaneous – Airline/Aviation Related	210	187	-11%
Hotels and Restaurants	259	243	-6%
Wholesale and Retail Trade	246	392	+59%
<b>TOTAL</b>	<b>4,462</b>	<b>5,219</b>	<b>+17%</b>

- 8.4.3 It is important to note that the table depicts changes in employment *only in the companies who responded to both the 2007 and 2008 survey*, and *not* the changes in employment for all businesses in the vicinity of the Airport. It is illustrative only of the changes over time in the 39 businesses that responded to both surveys.
- 8.4.4 Of these 39 companies, 21 (54%) have increased their level of employment between 2007 and 2008. Four (10%) saw no change and the remaining 14 (36%) employ fewer employees in 2008 than in 2007. The 59% increase in the 'Wholesale and Retail Trade' is skewed towards one employer.

## 8.5. Employment By Gender

- 8.5.1 Table 4 illustrates breakdowns by gender and full/part time work from those companies that responded to this year's survey. In 2008 men accounted for 61% of employment at the Airport, and women 39%. Full time employment predominates, with 81% of all people employed by the companies that responded to the survey being employed full time, with the remaining 19% working part time. This is fundamentally driven by the trend in the Transport, Storage & Communications sector where nationally, 86% of employees work on a full time basis<sup>3</sup>.

**Table 4 – Employment by gender and full/part time, all respondents, 2008**

	<b>Males</b>	<b>Females</b>	<b>Full Time</b>	<b>Part Time</b>	<b>Total</b>
Hotels/Restaurants	128	115	183	60	243
Miscellaneous - Non Airline Related	72	29	96	5	101
Miscellaneous - Airline/Aviation Related	669	238	727	180	907
Transport, Storage & Communications	2306	1498	3180	624	3804
Wholesale and Retail Trade	213	252	309	156	465
<b>Total</b>	<b>3388</b>	<b>2132</b>	<b>4495</b>	<b>1025</b>	<b>5520</b>
<b>% of total employment</b>	<b>61%</b>	<b>39%</b>	<b>81%</b>	<b>19%</b>	<b>100%</b>

*Note: The total figure does not match the figure in Table 2, due to breakdowns of gender and full/part time working not supplied by one company.*

## 8.6. Percentage Of Employees Living In Luton

- 8.6.1. Companies that responded to the survey provided an estimate of the proportion of their employees who lived in Luton. The results are shown in Table 5. Not all firms answered this question. The four that did not have been omitted from this analysis.

**Table 5 – Employees Living in Luton by Sector, all respondents, 2008**

	<b>Average % of Employees Living in Luton</b>	<b>Average Number of Employees Living in Luton</b>
Hotels/Restaurants	89%	220
Miscellaneous - Non Airline Related	51%	50
Miscellaneous - Airline/Aviation Related	64%	580
Transport, Storage and Communications	29%	1,110
Wholesale and Retail Trade	88%	410
<b>TOTAL</b>	<b>70%</b>	<b>2,370</b>

*Note: All figures in Table 5 are rounded to the nearest 10. Figures under 40 have been suppressed to prevent disclosure and identification of individual companies' employment figures.*

- 8.6.2 Firms within the Wholesale & Retail Trade, Hotels/Restaurants and Miscellaneous (Airline/Aviation Related) categories had the highest percentage of employees that lived in Luton. At 29%, firms within Transport, Storage and Communications sectors had the lowest percentage of employees living in Luton. The average percentage of employees living in Luton for the companies who responded to the survey was 70%.

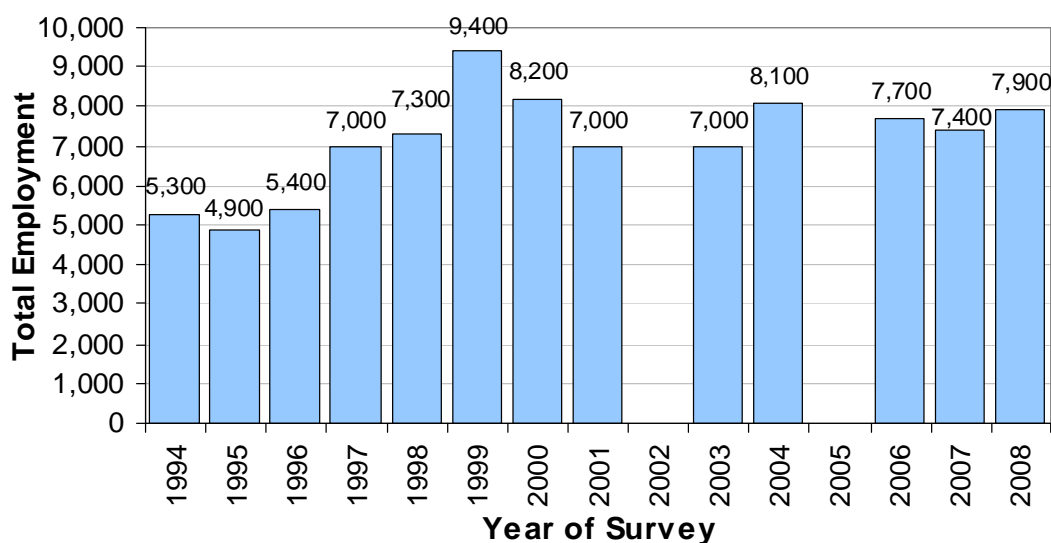
<sup>3</sup> Source: Annual Business Inquiry



## 8.7 Total Employment At London Luton Airport

- 8.7.1 At 73%, although the response rate for the 2008 survey was very good, there were still some companies that had not responded to the survey. Therefore, determining total employment at and around LLA requires further information. Imputed figures for those companies that did not respond to the questionnaire have thus been calculated.
- 8.7.2 This section provides an estimate of total employment at and around the Airport based on:
- Data from those companies that responded to the survey
  - Entries on the Inter-Departmental Business Register (IDBR) 2008, and
  - Estimates of employment for those companies that neither responded to the survey nor had an entry on the IDBR
- 8.7.3 The IDBR allows total employment figures to be obtained for some of those non-responding companies. Of the companies on the original mailing list that did not return a questionnaire, there were entries on the IDBR for 19 of these companies. This adds 990 employees at the Airport to the total employment figure obtained from the questionnaire.
- 8.7.4 For the 8 companies that did not respond and were also not found on the IDBR, these companies were assigned an estimated employment figure based on the average employment of those companies with the same SIC (see Appendix B) that responded to this year's survey. In total, these companies are estimated to employ 130 people.
- 8.7.5 Combining the imputed figure from the IDBR of 990, and the estimated figure for the eight companies not found on the IDBR of 130 with the 6,780 employees from the responses to the survey, this gives an overall estimated total employment figure at and around LLA of 7,900 people.
- 8.7.6 Current figures show that employment in 2008 has risen to 7,900. Prior to this, employment figures peaked in 1999 at 9,400 employees – likely reflecting the increase in construction related employment with the building of the new terminal and also partly a function of differing methodology in the estimation process for non-respondents. Prior to 2003, total employment was estimated using the average company size multiplied by the total number of companies. This is a crude estimation method, whereas imputed IDBR data currently used is more sophisticated and, hence, more accurate.

**Chart 1 – Total Employment at London Luton Airport, 1994 to 2008**



Note: All figures in Chart 1 are rounded to the nearest 100.

It must also be noted that:

- Due to a poor response rate in 2002, no employment data was available and therefore no analysis conducted.
- The employment section of the survey was not commissioned in 2005, hence no data is available for this year.
- Due to an incomplete address list and one large employer providing incorrect data, the 2007 total employment figure has been revised.

## **8.8 Conclusion**

- 8.8.1 As in recent years, reporting of the results of this year's survey has also been restricted to direct responses from the questionnaire, with an imputed figure included for those companies known not to have responded to the survey. Overall, 7,900 people are estimated to work at or around the Airport site.
- 8.8.2 Once again, the response rate (at 73%) was high, with all the major airlines and employers participating. As such, the analysis by industry given in this report can be considered a robust indication of the breakdown of employment in and around the Airport.



## 9. *Surface Access*

### 9.1. Road Traffic

- 9.1.1 The 5 day week (12hr / 5 day) summer road count for 2008 (Section 9.5) shows that, for all compared sites, traffic flows have decreased since the survey was carried out last year. For the 24-hour week (24hr / 7day), a similar picture is evident except for Airport Way with small increases. There are a number of likely causes of this change. These include the continuing influence of the East Luton Corridor construction work, but there has also been a gradual decline in traffic levels generally across the Borough over the last two or three years. This has been most noticeable across the Inner Cordon around the town centre, but there has been no related economic downturn reported by the shops, indicating that people may have been influenced by external factors and started using other modes for their journeys - this modal shift may have been boosted during the last year by the increases in fuel prices. This view is supported by press reports of a marked increase in the numbers of rail passengers over the same period
- 9.1.2 The Winter count for 2008-09 shows marginal increases in 12/5 flows on only 3 of the 7 monitored roads (Frank Lester Way and Vauxhall Way - north and south). The remainder show decreases except for Eaton Green Road with no change. However, the 24/7 winter flows show decreases on 6 of the monitored roads, with the only exception being Frank Lester Way. As for the summer counts, the East Luton Corridor works continue to have an impact on the local road network. The new dual carriageway between Airport Way, near the Lower Harpenden Road over-bridge and Percival Way roundabout, was partially opened to two-way traffic a few days before Christmas. The road will be fully open in the near future and, once all the ancillary works are completed, the situation should significantly improve. The count site on London Road was damaged during the survey period, so was only able to provide data between the Monday a.m. and the Saturday p.m. There is a continuing problem with damage at this site and it is planned for it to be upgraded in 2009 to correct this problem. No data was recorded on Airport Way between Vauxhall Way and Percival Way between 10a.m. on the Saturday and 3 p.m. on the Sunday. There was no scheduled closure of the road due to the ELC works, and neither was there a closure for any urgent or emergency works by any of the statutory undertakers, so it would appear that the recording equipment was non-operational for that period. This view is supported by the fact that there was no significant increase in traffic flows on the adjacent roads over that period.

### 9.2 Public Transport Services

- 9.2.1 Table 9.2.1 shows the number of scheduled train services per week from Luton Airport Parkway Station (which opened in November 1999), increased for the Summer 2007-2008. There was a particular increase in the number of Winter services for 08/09. This is attributed to additional East Midlands Trains serving Luton Airport Parkway and increased First Capital Connect services (eight additional northbound services in the morning peak and six southbound per day, including increased Sunday North and Southbound services). For the duration of this timetable (all day on most Saturdays and Sundays and between 22:30 and 04:30 Mondays – Fridays) trains will operate only between Bedford and St.Pancras International and Brighton and London Bridge.

**Table 9.2.1: SCHEDULED TRAIN SERVICES FROM LUTON AIRPORT PARKWAY STATION**

Number of services per week 7 days	Summer 04 23 May*	Summer 04 11 Sept	Winter 04/05 Dec-May*	Summer 07	Winter 07/08	Summer 08	Winter 08/09
<b>Direction</b>							
<b>Northbound</b>	939	870	868	851	853	854	870
<b>Southbound</b>	901	853	854	809	815	815	867
<b>TOTAL</b>	<b>1,840</b>	<b>1,723</b>	<b>1,722</b>	<b>1,660</b>	<b>1,668</b>	<b>1,669</b>	<b>1,737</b>

*\*Because of disruption caused by reorganisation of facilities in connection with the Channel Tunnel Rail Link, Thameslink timetables have been issued on a 3 monthly basis to reflect planned temporary splitting of services north and south of the Thames in 2004 and 2005.*

9.2.2 Table 9.2.2 suggests that national bus services to London Luton Airport increased over the summer season between 2007 and 2008 but subsequently decreased for the winter season while local services decreased over both seasons. Some local bus services, which previously called at the Airport, have been withdrawn. In January 2008, First Capital Connect took over operation of the shuttle bus service from Luton Airport Parkway Station to the Airport. Although these journeys are not included in the below figures, a large number of journeys are made on a daily basis. Services to Central London and other national destinations increased over both seasons 2007 – 2008. Most National Express services make scheduled stops within the Town Centre, also allowing for patronage between the Town Centre and the Airport.

9.2.3 Airport to airport coach services increased with over both summer and winter seasons 2007 to 2008 largely arising from increased services to Stansted.



**Table 9.2.2 : BUS AND COACH SERVICES FROM LONDON LUTON AIRPORT**

Number of Services per Week	Summer 2007	Winter2007/08	Summer 2008	Winter 2008/09
Destination				
<b>LOCAL</b>				
Luton Railway Station	427	497	437	278
Others	553	601	543	385
<b>National</b>				
Central London	462	267	532	462
Others	518	542	532	566
<b>TOTAL</b>	1,960	1,907	2,044	1,691
<b>AIRPORT- AIRPORT LINK</b>				
Birmingham	70	82	77	84
East Midlands	0	0	0	0
London Gatwick	70	70	70	72
London Heathrow	140	140	140	142
London Stansted	175	189	182	217
Manchester	7	7	7	7
<b>TOTAL*</b>	462	488	476	522

*\*As some services call at more than one airport, the total number of actual departures will be less than the sum of the disaggregated services to each airport.  
This information represents a general guide to the number of services based on the information available from the various bus operators.*

### 9.3 Additional Information

9.3.1 LLAOL published its first Airport Surface Access Strategy (ASAS) in 2000, in line with the recommendations of the 1998 Integrated Transport White Paper. This strategy set targets to encourage air passengers and employees to access the airport using more sustainable modes. These targets are being monitored regularly, as part of the wider Local Transport Plan (LTP) monitoring framework.

9.3.2 In December 2008, LLAOL published a new Draft ASAS for public consultation. This document includes new challenging targets to encourage more sustainable travel amongst airport passengers and employees. The final ASAS is expected to be produced in 2009.

- 9.3.3 The Civil Aviation Authority (CAA) undertakes continual passenger surveys at many of the major airports in the UK, including London Luton. In common with other airports, LLAOL uses this survey data to assess trends in passenger 'modal shift' from private to public transport. The table below shows the unweighted CAA data for 2002 to 2007. This shows the significant increase in passengers using public transport to access the Airport. The CAA statistics suggest that 33% of airport passengers now choose to use public transport, a 3% increase from 2006.

%	2002	2003	2004	2005	2006	2007
Private Car – Drop Off	31	28	37	28	29	24
Private Car – Park	35	34	22	29	29	29
Rail	17	19	16	20	18	21
Bus/Coach	7	8	10	10	12	12
Taxi	11	11	12	12	13	13
Other	0	0	2	1	0	1

- 9.3.4 During 2008, LLAOL commenced major improvements to the main Central Terminal Area, with the intention of improving access for all airport users. These works are currently ongoing and will be completed by Easter 2009 and include improvements to the bus set down area, the main terminal roundabout, relocation and enhancement of drop off zone facilities and alterations to the short term car park.

#### 9.4 Car Parking

- 9.4.1 Whilst the ASAS seeks to encourage passengers and staff to travel to LLA by sustainable means, there will always be some passengers and staff who choose to travel by car. Policies LLA1 and LLA2 of the Borough of Luton Local Plan set out the criteria for airport car parking, both on and off site.
- 9.4.2 Staff car parking capacity remained unchanged during 2008, however the Long Term passenger car park increased by approximately 41 spaces.

##### On site Car Parks or Car Parks within the airport boundary

Passenger	Spaces	Area m <sup>2</sup>
Short Term	1,556	39,373
Mid Term	2,730*	65,000
Long Term	3,400	72,150
<b>Passenger Total</b>	<b>7,686</b>	<b>176,523</b>
<b>Staff Total</b>	<b>3,835</b>	<b>97,270</b>
<b>Total</b>	<b>11,521</b>	<b>273,793</b>

*\*Mid Term Car Park had 3,650 spaces until May 2006 when work commenced on the link road from Airport Way as part of the East Luton Corridor scheme. NOTE: previous figure reported in earlier AMRs incorrect.*



- 9.4.3 Policy LLA2 seeks to resist off site airport related parking, unless in exceptional circumstances. However, the existence of these sites should be acknowledged and monitored. Only authorised car parks are noted in the following table, although others may occur around the airport boundary.

**Off site Car Parks or Car Parks outside the airport boundary**

Operator*	Spaces*	Area ha
Airparks (Slip End)	3,510	5.97**
Central Car Storage	216	0.56
Airport Carparkz (temporary consent expires March 2010)	250	1.20
<b>Total</b>	<b>3,976</b>	<b>7.73</b>

\* Numbers of spaces given relates to the number approved as part of planning conditions imposed at the time of determination of the application.

\*\* This figure corrects an error in the AMR 2006.

## 9.5 Traffic Counts

<b><u>Traffic Count – Winter (Average 12hrs)</u></b>					
	<b>2001/ 2002</b>	<b>2005/ 2006</b>	<b>2006/ 2007</b>	<b>2007/ 2008</b>	<b>2008/ 2009</b>
Airport Way	0	16047	14699	16067	14438
Lower Harpenden Rd	7808	10664	<i>11127</i>	11498	9935
London Rd	0	11834	16787	16802	13384
Frank Lester Way	0	8700	8908	9487	10342
Vauxhall Way South	0	20985	19534	19915	19977
Vauxhall Way North	0	15988	15599	14858	14866
Eaton Green Road	0	12267	12674	12671	12671

<b><u>Traffic Count – Winter (Average 24hrs)</u></b>					
	<b>2001/ 2002</b>	<b>2005/ 2006</b>	<b>2006/ 2007</b>	<b>2007/ 2008</b>	<b>2008/ 2009</b>
Airport Way	0	21498	21410	22825	17785
Lower Harpenden Rd	9431	11312	<i>12246</i>	12553	10729
London Rd	0	15142	20862	21613	14407
Frank Lester Way	0	9405	9765	10245	11243
Vauxhall Way South	0	25813	23974	25398	24585
Vauxhall Way North	0	20298	20185	19342	19124
Eaton Green Road	0	15405	15761	16369	15758

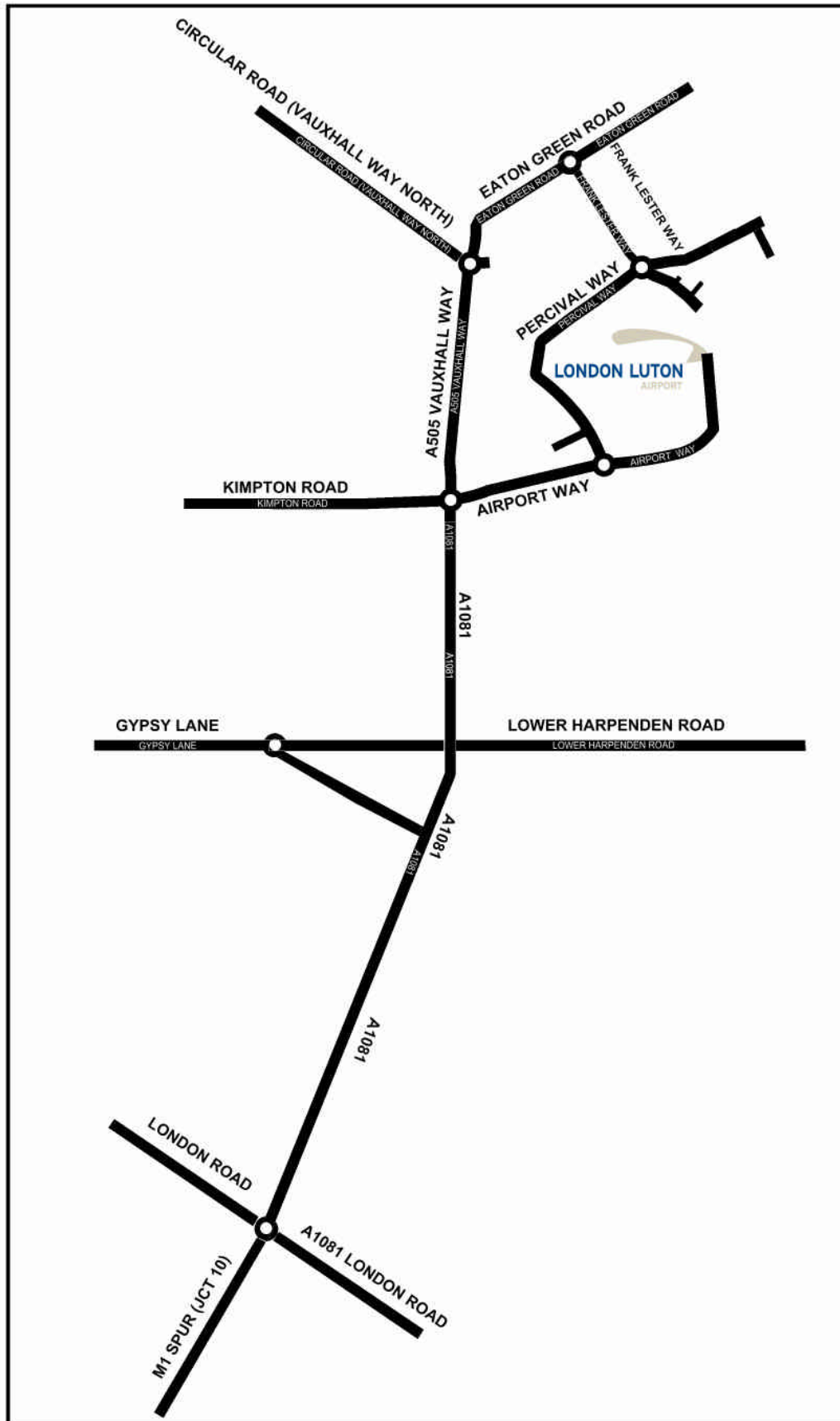
<b><u>Traffic Count – Summer (Average 12hrs)</u></b>					
	<b>2001/ 2002</b>	<b>2005/ 2006</b>	<b>2006/ 2007</b>	<b>2007/ 2008</b>	<b>2008/ 2009</b>
Airport Way	6498	18173	17640	17370	16885
Lower Harpenden Rd	8424	10837	<i>11123</i>	11204	8728
London Rd	12787	16338	13213	16076	14553
Frank Lester Way	7192	9128	9860	8315	7211
Vauxhall Way South	0	24609	19538	19339	18110
Vauxhall Way North	0	20484	15515	15031	14328
Eaton Green Road	11029	14849	12320	12467	11560

<b><u>Traffic Count – Summer (Average 24hrs)</u></b>					
	<b>2001/ 2002</b>	<b>2005/ 2006</b>	<b>2006/ 2007</b>	<b>2007/ 2008</b>	<b>2008/ 2009</b>
Airport Way	9608	26532	26707	27066	27441
Lower Harpenden Rd	10500	10426	<i>10511</i>	12308	10080
London Rd	16175	17406	17436	20366	18361
Frank Lester Way	7922	10275	11351	9484	8550
Vauxhall Way South	0	26135	25034	24922	20434
Vauxhall Way North	0	19184	20354	19743	16760
Eaton Green Road	14069	14873	15812	16182	14862

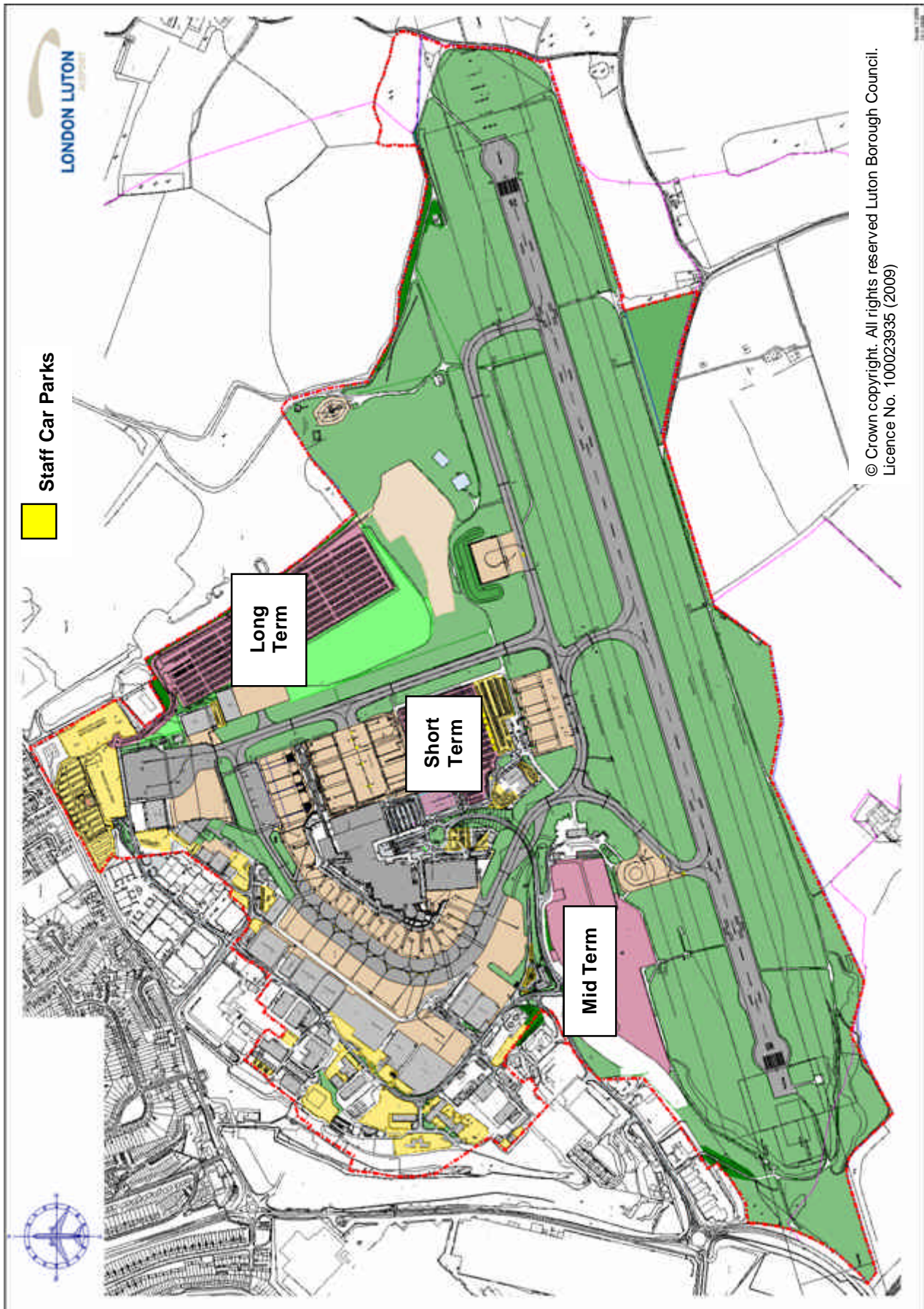
*N.B. figures in italics denote 2006 estimates pro rata 2004/05 because of missing data see text.*



**Local Highway Network**



9.6 Location of Passenger and Staff Car Parking



## **10. Planning**

### **10.1 National Aviation Policy**

- 10.1.1 In December 2003, the Government published its White Paper "The Future of Air Transport" which set out its views for a balanced strategic framework for the development of national airport capacity, encouraging development at existing airports, whilst making best use of existing capacity first. In this White Paper, as an integral part of this policy, the Government supported the growth of LLA up to a maximum use of a single full-length runway (circa 30mppa or 240,000 ATMs) based broadly on the current alignment, on condition that the overall environmental impacts of such development will be carefully controlled and adequate mitigation provided.
- 10.1.2 In common with other airport operators, LLAOL was asked to provide a Master Plan (MP) to illustrate how the principles of the White Paper could be delivered. Under the auspices of Project 2030, a high level Statement of Intent was produced in December 2004, which described the issues to be addressed and was followed by the release of a draft MP in October 2005.
- 10.1.3 The draft MP, comprising of a Core Strategy, Sustainability Appraisal and Airport Surface Access Strategy outlined proposals for a full-length replacement runway with associated facilities. LLAOL undertook extensive public consultation which concluded on 27<sup>th</sup> January 2006. In July 2006, LLAOL withdrew the draft MP and intends to publish a revised plan in due course.
- 10.1.4 It is stressed that the MP is not a planning application, and in line with Government advice, will be the subject of periodic review.
- 10.1.5 For further information regarding National Aviation Policy prior to 2003, please refer to previous additions of the AMR.

### **10.2 Strategic Planning Policy**

- 10.2.1 The majority of the Bedfordshire Structure Plan 2011 policies expired in September 2007 following a Direction issued by the Secretary of State under Para 1(3) of the Schedule to the Planning & Compulsory Purchase Act 2004. Therefore, Policy 48 of the Structure Plan has been deleted and no longer applies. Policy 48 supported expansion of LLA up to about 10 million passengers per annum (mppa) for the period up to 2011 (subject to environmental and noise contour criteria). Saved Policies 25 and 46 deal with relevant infrastructure provision while saved Policy 49 only deals with other airfields.
- 10.2.2 The new planning system was enacted in the summer 2004 requiring adopted Structure Plans and Local Plans to have only a limited 'shelf life' until replaced respectively by new statutory Regional Spatial Strategies (RSS) and Local Development Frameworks (LDF). The Luton Local Plan (adopted in 2006 under the old planning system) is only permitted to have a three year life until replaced by the new LDF. In the interim therefore, the Local Plan has statutory policies regulating growth at LLA to 2011 (see section 10.3).
- 10.2.3 The new planning system also introduced RSSs to replace strategic policies in Structure Plans. Bedfordshire and Luton reside within the East of England Region. The East of England Regional Assembly (EERA) is the Regional Planning Body which is preparing the emerging RSS14 for the East of England known as the 'East of England Plan' and covering the period to 2021. RSS14 was adopted in May 2008 and reflects national aviation policy (section 10.1 above), which sets a framework for growth at the region's airports including LLA to 2030. RSS14 specifically focuses on Economic Policy E8 and Transport policy T12 which respectively cover economic objectives of aviation, integrating surface access, modal shift and the environmental safeguards to be addressed within LDFs (as informed by development proposals within a MP).



- 10.2.4 Luton is also within the designated 'Luton Dunstable/Houghton Regis Growth Area' arising from the adopted 'Milton Keynes – South Midlands Sub Regional Strategy' (MK-SM SRS). The MKSM-SRS is complementary to RSS14 and together they form the long term strategic planning framework. This includes planning for future airport growth consistent with national policy objectives, with local implementation at Luton being managed through the LDF and Local Development Documents (LDDs) to be informed by a MP to deliver growth sustainably.
- 10.2.5 In May 2008, the Secretary of State adopted and published RSS14. The adopted RSS removed draft policy BL1 which restricted growth at LLA up to the maximum capacity of the existing 2160m runway by 2021 because the principle of growth is now set by national aviation policy to 2030.
- 10.2.6 In September 2008, EERA published a program for the next 'partial review' of the RSS to 2031. Work has begun on this review considering a range of housing and economic growth scenarios apportioned to district and Unitary authority level for testing. Aviation policy is not however, being reviewed. The MK-SM SRS will be fully integrated into the RSS. It is anticipated that a revised draft RSS will be submitted to government at the end of 2009, followed by public Examination, modifications consultation, and adoption in 2010.

### **10.3 Local Planning Policy**

- 10.3.1 The Planning System was recently reformed by the Planning and Compulsory Purchase Act 2004. Under the new system, the Local Plan for the whole of Luton is to be superseded by a Joint Local Development Framework (LDF), covering the administrative areas of both Luton Borough and South Bedfordshire District. However, in the interim, under the old system, the Borough Council's recently adopted Luton Local Plan (March 2006) remains part of the statutory development plan for 3 years or until replaced when the new LDF is prepared.
- 10.3.2 However, the Local Plan (March 2006) must be taken together with sub regional policy and emerging regional guidance (see section 10.2). Furthermore, the LLA Development Brief (February 2000) sets out detailed proposals for further development at LLA and is adopted by Luton Borough Council as Supplementary Planning Guidance (in September 2001).
- 10.3.3 The Local Plan (March 2006) policies LLA1 and LLA2, deal with growth and development at LLA and necessary sustainable transport measures. LLA3 and LLA4 deal with development within Public Safety Zones and Airport Safeguarding for guidance to developers of land primarily around the airport boundary. LLA is identified as an 'Action Area'. Policy LLA1 supports expansion provided it is not in conflict with national or regional aviation policies, and results in an aircraft noise impact that is below the 1999 level; and is in accordance with the most recent adopted Development Brief. Under the three year saving regime from adoption of the Local Plan (2006) - the saved policies in the Local Plan will only operate till March 2009. However, in September 2008 the Borough Council applied to the Secretary of State to extend the Airport Policies LLA1, LLA2 and LLA4 and await a decision in early 2009.
- 10.3.4 In July 2006, LLAOL withdrew a draft MP (see section 10.1) but intends to publish a revised MP in due course. After public consultation, this MP may be adopted by the Borough Council or it may be used to inform LDF preparation.

### **10.4 Luton and Dunstable Local Transport Plan 2001-2006**

- 10.4.1. The Local Transport Plan (LTP) was first submitted to central Government in July 2000. It contained two major transport schemes proposed to serve the south east of Luton, including the Airport: the Translink busway (now known as the Luton Dunstable Busway (LDB)) and road and junction improvements in the East Luton corridor. The latter received Government approval following a Public Inquiry in 2005 and construction began in July 2006, funded through the Communities Infrastructure Fund and the second phase of the Growth Areas Fund. The LDB received provisional funding through the LTP capital programme in December 2003 and a Public Inquiry reported favourably upon the scheme in late 2006. An updated business case was submitted in December 2007 and construction is expected to begin in early 2009.

## **10.5 Luton-Dunstable-Houghton Regis Local Transport Plan 2006-2011**

10.5.1. The Luton-Dunstable-Houghton Regis Full Local Transport Plan was submitted to central Government in March 2006. It includes a long-term strategy, for the period up to 2020. One of the objectives of this strategy is to achieve planned growth at the Airport. Over the period up to 2011 the Plan is structured around a series of 'Shared Priorities', which have been agreed between Central and Local Government: accessibility, air quality, congestion and safety. Of these, accessibility is the most relevant to surface transport serving the Airport and under this heading the LTP proposes improvements at Luton Airport Parkway station (for example, providing a new entrance from Kimpton Road) a development that is consistent with the routeing of the LDB along Kimpton Road. The LTP sets out a range of other measures to give better access to the Airport, particularly for employees. In other respects the new LTP updates the first LTP, retaining many of the schemes in it (including the LDB and East Luton Corridor schemes).

## **10.6 Developments at Luton**

10.6.1. Policy 48 of the Structure Plan 2011 required the long-term growth strategy for the Airport to be subject to a Development Brief. The Development Brief was produced by LLAOL for consultation in February 2000 and subsequently approved as Supplementary Planning Guidance by LBC in September 2001. The adopted Development Brief is the current framework for planning applications, although the Surface Access Strategy has since been reviewed and a further review is being undertaken in 2008.

10.6.2. Eventually the new planning system and the provisions of the Aviation White Paper will supersede current policy. Until that time the existing policies have been saved through the process described above.

10.6.3. Under the Town and Country Planning (General Permitted Development) Order 1995, Schedule 2 Part 18 Class A, LLAOL are able to undertake works within the designated "operational area" of LLA, without the need for formal planning consent. Under this legislation, permitted development includes:

**"THE CARRYING OUT ON OPERATIONAL LAND BY A RELEVANT AIRPORT OPERATOR OR ITS AGENT OF DEVELOPMENT (INCLUDING THE ERECTION OR ALTERATION OF AN OPERATIONAL BUILDING) IN CONNECTION WITH THE PROVISION OF SERVICES OR FACILITIES AT A RELEVANT AIRPORT"**

**AN OPERATIONAL BUILDING IS DEFINED AS:**

**"A BUILDING, OTHER THAN A HOTEL, REQUIRED IN CONNECTION WITH THE MOVEMENT OR MAINTENANCE OF AIRCRAFT, OR WITH THE EMBARKING, DISEMBARKING, LOADING, DISCHARGE OR TRANSPORT OF PASSENGERS, LIVESTOCK OR GOODS AT A RELEVANT AIRPORT."**

**DEVELOPMENT IS NOT PERMITTED IF IT INVOLVES:**

- THE CONSTRUCTION OR EXTENSION OF A RUNWAY;
- THE CONSTRUCTION OF A PASSENGER TERMINAL THE FLOOR SPACE OF WHICH WOULD EXCEED 500 SQUARE METRES;
- THE EXTENSION OR ALTERATION OF A PASSENGER TERMINAL, WHERE THE FLOOR SPACE OF THE BUILDING AS EXISTING AT 5<sup>TH</sup> DECEMBER 1988 OR, IF BUILT AFTER THAT DATE, WOULD BE EXCEEDED BY MORE THAN 15%;
- THE ERECTION OF A BUILDING OTHER THAN AN OPERATIONAL BUILDING
- THE ALTERATION OR RECONSTRUCTION OF A BUILDING OTHER THAN AN OPERATIONAL BUILDING, WHERE ITS DESIGN OR EXTERNAL APPEARANCE WOULD BE MATERIALLY AFFECTED.

10.6.4 The notable physical developments undertaken or commenced by LLAOL within the airport boundary in 2008 are as follows:-

- Erection of a single storey modular building within the Airport Drop Off Zone.
- Certificate of lawfulness for the siting of a single storey modular building and relocation of existing portable building adjacent to the fire station, which will be delivered in early 2009.
- Works to the roundabout, drop off zone and bus set down area, of the Central Terminal Area. This work will continue into 2009.

10.6.5 Other developments on or adjacent to the site but carried out by third parties include:-

- Installation of an external storage tank to service the existing water treatment plant at IBC Vehicles Limited, Trade Effluent Plant. (This is not airport related but lies close to the Airport Boundary).
- Change of use of building from class B2 (general industrial) to B2 and B8 (storage and distribution at Cargo 10 Airport Way).

10.6.6 Although LBC was not be the determining authority, the Planning Service was consulted on an application by North Herts District Council for -

*“Use of land for off-airport car storage facility for 268 cars and parking area for coaches/mini buses. Construction of ancillary admin building, renewable energy plant and new vehicular access. Land off East Side of Luton Road, Cockernhoe, Luton.”*

This application was subsequently refused on 22 May 2008. The applicant has not appealed against the decision.



## 11. *Glossary and Definitions*

A-weighting	A frequency response used in sound measurement devices to take account of the way the sensitivity of the human ear varies with frequency.
Aircraft Movement	A landing or take-off of any aircraft from the Airport.
Cargo Aircraft	Aircraft movements which are solely for freight. It should be noted that freight can also be carried in the hold of passenger aircraft.
Complaint	A complaint is the reporting of disturbance caused by actual aircraft operations affecting the reporter of the complaint to the Airfield Environment Office, hereafter called the 'complainant'. It reflects discontent and is triggered by or attributed to either a specific aircraft event outstanding in its impact or, by general patterns such as frequency, volume, aircraft fleet mix, runway split, operating hours, etc. One complaint may contain a number of incidences of disturbance referred to as 'events'. All other comments received are logged and reported separately if they do not meet the above criteria.
Decibel (dB)	The logarithmic ratio of a sound pressure compared to a reference sound pressure in decibels, dB. For audible sound A-weighted decibels are commonly used, dB(A).
dB(A)	The unit of sound pressure level, weighted according to the A scale, which takes into account the increased sensitivity of the human ear at some frequencies.
Flying Club	Britannia Flying Club and other light aircraft movements for instruction or pleasure.
General Aviation	Private Aircraft, Helicopters and Business Jets
ICAO	International Civil Aviation Organisation.
INM	Integrated Noise Model. A method of noise contour modelling which uses a wide range of different aircraft types and can be adjusted according to operating procedures.
LAeq,T	The notional A-weighted equivalent continuous sound level which, if it occurred over the same time period, would give the same noise level as the continuously varying sound level. The T denotes the time period over which the average is taken, for example LAeq,16h is the equivalent continuous noise level over a 16 hour period.
Military	Flights by British or foreign military aircraft exclusively for military purposes.
Noise Certificated	An aircraft conforming to the requirements of ICAO Annex 16 which lays down specific levels of noise not to be exceeded at specific points on an aircraft's departure. An aircraft must be noise certificated in order to operate at United Kingdom Airports after 1 January 1988 unless exempted by the Civil Aviation Authority.

Noise Preferential Route (NPR)	Noise Preferential Routes are established to ensure that departing aircraft avoid overflying densely populated areas in the vicinity of an Airport, as far as practicable. NPRs are valid until the aircraft has reached an altitude (above mean sea level) of 3,000ft during the daytime or 4,000ft at night, depending on the flight route. Once an aircraft has achieved this altitude Air Traffic Control may tactically vector the aircraft, taking into account any other airspace constraints, in order to integrate it into the overall flow of national traffic.
Official	Flights solely for official purposes by British or foreign civil government departments.
Positioning Flights	Flights by air transport operators for the sole purpose of moving their own aircraft, personnel or stores from one place to another and air transport flights forced to return to base by bad weather, engine failure or other causes.
Runway Usage	For operational and safety reasons, aircraft generally take-off and land into the wind. When winds come from the west (westerly operations), aircraft will take-off and land towards the west and when winds come from the east (easterly operations) aircraft will depart and land towards the east.
Test & Training	Flights for the purpose of testing aircraft/Airports or for training flying crew or ground personnel. Also included in this category are demonstration flights by makers or sellers of aircraft and aviation equipment. N.B. Flying Club instructional flights are excluded from this category.

## 12. *Useful Links*

London Luton Airport	<a href="http://www.london-luton.co.uk">www.london-luton.co.uk</a>
Luton Borough Council	<a href="http://www.luton.gov.uk">www.luton.gov.uk</a>
The Civil Aviation Authority	<a href="http://www.caa.co.uk">www.caa.co.uk</a>
NATS (National Air Traffic Services)	<a href="http://www.nats.co.uk">www.nats.co.uk</a>
The Department for Transport (Aviation)	<a href="http://www.dft.gov.uk/aviation">www.dft.gov.uk/aviation</a>
Hertfordshire & Bedfordshire Air Quality Monitoring Network	<a href="http://www.hertsbedsair.org.uk">www.hertsbedsair.org.uk</a>
London Luton Airport Consultative Committee	<a href="http://www.llacc.com">www.llacc.com</a>

## Appendix A – Night Noise Policy

# NIGHT NOISE POLICY

## ISSUE 7

**Department:** Airfield Environment - Airfield Operations

**Authority:** Airport Operations Director

**Distribution:** Aircraft Operators  
UK Aeronautical Information Publication (UK AIP)  
Luton Based Handling Agents  
Airport Operations  
London Luton Airport Consultative Committee  
London Luton Airport Noise & Track Sub-Committee  
London Luton Airport Night Noise Working Group  
Upon Request

**Effective Date:** April 1, 2007 to March 31, 2009

**Review Status:** Amended February 21, 2007

ISSUE	DATE	DESCRIPTION
1	March 28 2002	First Issue
2	April 05 2002	Insertion on policy for departing aircraft below 34,000 kg
3	April 26 2002	Amendments following Night Jet Working Group Consultation
4	May 13 2003	Authority title changed to Airport Services Director
5	October 1 2003	Amendment to Aerodrome Flying Training Restrictions at night
6	September 4 2006	Amendments incorporating review of Night Noise Working Group
7	February 21 2007	Amendments incorporating review of Night Noise Working Group



## Purpose

LLAO has previously operated a Night Jet Policy with the specific aim of accelerating the removal of Chapter II aircraft from its night operations. This policy was successfully achieved and expired on the 31st March 2002, which coincided with the implementation of national regulations regarding Chapter II aircraft from the 1st April 2002.

As well as implementing the Night Noise Policy, LLAO has had in operation various monitoring and control mechanisms relating to the noise impact of its night operations.

The purpose of this new policy is to formalise those activities, describing the various arrangements, and setting out additional monitoring which will occur. The policy is designed to demonstrate that LLAO will continue to monitor and manage the impact of its night operations, providing information to stakeholders and enabling the Airport management to continue to balance the economic and social benefits of its night operations with the consequential noise impact.

## Background

- 1.0 London Luton Airport Operations Ltd (LLAO) is licensed by the Civil Aviation Authority for 24-hour operations under its Public Use Aerodrome License issued in accordance with the Air Navigation Order (1995).
- 2.0 With regards to night noise, LLAO operates within Condition 11 associated with the planning consent granted in 1998. This requires the Airport to operate in such a manner that the night noise contours do not exceed the impact, which occurred in 1984 in terms of land area affected. In particular, the area within the 48 dB(A),  $L_{Aeq,8h}$  contour for an average summer's night shall not exceed 85 km<sup>2</sup>. If results show that the 1999 predicted values have been exceeded, an action plan will be implemented to avoid the possibility of exceeding the 1984 values.

## Current Monitoring and Control Activities

- 3.0 LLAO will continue to comply with the planning conditions which, apply to it and, in particular, that concerned with Night Noise.
- 4.0 LLAO will continue to monitor and manage the number of aircraft movements at night and report them quarterly to the LLACC.
- 5.0 LLAO will continue to monitor and respond to any complaints made to the airport about its night operations and report details of these complaints, quarterly, to the LLACC.
- 6.0 LLAO will continue to monitor the noise of departing aircraft at fixed monitors at each end of the airport runway and report the results quarterly to the LLACC. LLAO will continue to operate a fining system related to infringements of night noise limits.
- 7.0 LLAO will continue to produce annually noise contours for the average summer's night (mid-June to mid-September) based on actual movements and similar contours predicted for the forthcoming summer in accordance with Condition 11 attached to the 1998 planning consent.

- 8.0 LLAO will continue to apply surcharges on the Landing and Navigation Service Charge in respect of any landing immediately prior to a take-off during which the following maximum noise levels are recorded at any of the monitors during the night period:

2300 – 0559 Sunday to Friday inclusive & 2300 – 0659 on Saturdays;

>85 – 87 dB(A)	– 300% surcharge
>87 – 91 dB(A)	– 500% surcharge
>91 dB(A)	– 600% surcharge

### **Additional Monitoring and Control Activities**

- 9.0  $L_{Aeq,8h}$  noise exposure contours for an average night in each quarter (Jan–Mar; Apr–Jun; Jul–Sep; and Oct–Dec) for the night period commencing at 48 dB(A) and showing increasing values in 3 dB(A) steps will be produced and reported to the LLACC.

- 10.0 LLAO has developed a programme of noise monitoring at night to understand further the impact of its night operations on the local community. This programme and the location of the sites monitored is developed in consultation with the affected local authorities and community representatives. The results of the monitoring are reported to the LLACC.

- 11.0 LLAO will comply with the Aeroplane Noise Regulations 1999, which state that:

With effect from 1<sup>st</sup> April 2002, all subsonic jet aircraft with a maximum take off weight of more than 34,000 kg and a capacity of more than 19 seats operating to airports in the EEA must comply with Chapter 3 noise standards regardless of the age of the aircraft.

Aircraft hushkitted or modified to Chapter 3 standards comply with these requirements.

There are special agreed EC Provisions, which LLAO will have to comply with and these provide exemptions to certain aircraft registered in developing nations and meeting specified criteria. The UK is also obliged by the EC Directive to recognise exemptions granted by other states in respect of Chapter 2 aircraft registered in those states.

Details of exempted aircraft are available from the CAA's Economic Regulation Group, CAA House, 45-59 Kingsway, London. United Kingdom.

Additionally the CAA would normally be prepared to grant exemptions in respect of Chapter 2 aircraft visiting the UK solely for the purposes of maintenance provided that the aircraft operates empty on both inbound and outbound sectors. Chapter 2 aircraft under such exemptions may be permitted to operate into Luton.

- 12.0 In addition LLAO will extend the restriction described in Para 11.0 above to aircraft with a maximum take-off weight of more than 11,600 kg between the hours of 2259 to 0559 Sunday to Friday nights and from 2259 to 0659 on Saturday nights for departure movements only. Arrival movements remain unrestricted 24-hours per day.

- 13.0 The exceptions to the restrictions set out in Paras 11.0 and 12.0 above are:

- Delayed departures of any aircraft exempted by the CAA from the requirements of the Aeroplane Noise Regulations;
- Departures permitted in emergency situations;

- Relief Flights where urgent need exists;
- Military and support aircraft for military operational reasons;
- Delays to aircraft which are likely to lead to serious congestion at the aerodrome or serious hardship or suffering to passengers and/or animals;
- Off scheduled movements from major disruption of air traffic;
- VIP flights, which include flights by members of the Royal Family, UK Government Ministers and Service Chiefs of Staff, and members of foreign Royal Families, Heads of State and senior ministers, but excludes show business and sports personalities.

14.0 Details of any such exceptions will be reported quarterly to the LLACC.

15.0 Provide aircraft operators and pilots with noise and track keeping data at the quarterly Flight Operations Committee meetings in order to monitor trend data and share such data with aircraft operators.

16.0 Flying Training at London Luton Airport is currently only permitted between 0600-2300 (0800-2300 on Sundays) for aircraft required to comply with Noise Preferential Routing (NPR) procedures. Aircraft which are NPR exempt are those below a maximum take-off weight (MTOW) of 5,700kg although jet aircraft below 5,700 kg are NOT NPR exempt.

Effective October 1, 2003, LLAO will extend the Flying Training Restriction to the hours of 2000 – 0800. This means no jet aircraft training or air testing can be undertaken between these hours. All aircraft movements to and from London Luton Airport between these hours will be expected to be associated with an arrival and/or a departure.

NPR exempt aircraft will not be subject to this restriction.

The definition of Flying Training also includes Air Testing where aircraft under maintenance are technically required to conduct an actual flight, which may involve circuits at approved altitudes.

In exceptional circumstances Operators can apply to London Luton Airport Operations for permission to carry out Flying Training or Air Tests.

17.0 The conditions under which LLAO may grant exceptional permission for Flying Training or Air Tests are;

- Delays to aircraft which are likely to lead to serious congestion at the aerodrome or serious hardship or suffering to passengers and/or animals where an Air Test is required to enable a planned flight to operate a service.
- Unplanned technical repair of an aircraft scheduled to operate a passenger or cargo revenue service.
- VIP flights, which include flights by members of the Royal Family, UK Government Ministers and Service Chiefs of Staff, and members of foreign Royal Families, Heads of State and senior ministers, but exclude show business and sports personalities.

18.0 Effective April 1, 2007, LLAO will implement a scheduling ban on all QC8 type aircraft (e.g. Boeing 747-200) with no aircraft allowed to arrive or depart with the exceptions listed in Para 13.0 of the Policy.

19.0 Engine ground running and the testing of engines in the night period will be further managed by LLAO.



## Notes

20.0 Any changes in legislation or regulation by the Government or other national authority shall take precedence over the clauses within this policy.

21.0 This policy shall apply from 1<sup>st</sup> April 2007 to 31<sup>st</sup> March 2009.

## ***APPENDIX B - Employment Chapter Data Collection Methodology***

### **Standard Industrial Classification of Economic Activities – SIC2007**

The SIC was first introduced in 1948, and since then it has been revised a number of times, the last being in 2007 and becoming operative in 2008. The UK SIC07 follows the same broad principles as the relevant international standards.

### **SIC Structure**

The SIC classifies different categories of business/economic activities. These are divided as follows: Sections, Divisions, Groups, Classes and Sub classes.

### **Categories in the AMR**

For the purposes of the AMR the broadest category (i.e. the '*section*') into which each activity falls is used (except for LLAOL). The reason for this is the relatively small population sample and the diversity of business types at the airport. If the data were not aggregated then no meaningful conclusions could be drawn from it, whereas aggregating it allows us to make comparisons at authority, regional and national levels. To this high level, we would not be able to publish given the confidentiality guarantees applied to the survey.

LLAOL is treated as a special case in that it is included in the AMR as a separate category, even though LLAOL is not a sector in the SIC. This is because of its individual nature as the company that runs the Airport, and its straddling of a wide range of sectors.

### **Data Collection**

The method of collecting data for the AMR is using questionnaires which are sent to each business in a defined area in and around LLA (see 8.2). As with all data it is necessary to be cautious with the information that is received. There are a variety of reasons for this, which have been considered in the analysis, including:

- Companies may have been overlooked and not received a questionnaire.
- Questionnaires may not have been fully completed.
- Companies may not have responded.
- Companies previously included may have relocated.

**Airport Employment Survey Area****Within Airport Boundary:**

Most but not all of Airport Way  
Percival Way LU2 9PA & 9XD  
Provost Way LU2 9PB  
Proctor Way LU2 9PE  
Prentice Way  
Most but not all of Frank Lester Way  
Prince Way  
Prospect Way LU2 9BA  
Terminal Building LU2 9LU or 9ND  
Halcyon House LU2 9LU

**Outside Airport Boundary:**

Spittlesea Road  
Part of Airport Way  
Barratt Industrial Park LU2 9NH  
Part of Frank Lester Way  
Eaton Green Road  
President Way LU2 9NB  
Ibis Hotel  
Airport Executive Park  
Progress Park  
Wigmore House



# LTN

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এই নথিটি পাঠ্য, বড় অক্ষর, ব্রেল, ক্যাসেট, ইলেকট্রনিক এবং  
অন্যান্য উপলব্ধিযোগ্য ফর্ম্যাটে ক্যেভিন ওয়ান থেকে  
প্রাপ্য। টেলিফোন নম্বর: ০১৫৮২ ৫৪৭ ০৮৭

প্রাপ্যভিত্তিক প্রয়োজনীয় সম্পদে যদি আপনার মতামত  
জানতে চান অথবা কেবলমাত্র প্রাপ্যভিত্তিক অর্থায়ন  
জানতে চান, তাহলে যোগাযোগ করে আবুল নাসিরের  
সাথে ০১৫৮২ ৫৪৭ ০৮৭ - এই টেলিফোন নম্বরে যোগাযোগ  
করুন। আমরা আপনার মতামতের মূল্য দেই।

اگر آپ کو اس معلومات پر کوئی سوال ہے یا آپ کو اس معلومات پر کوئی سوال ہے  
تو براہ کرم اس معلومات پر کوئی سوال ہے 01582 547 087 پر براہ کرم

যদি আপনি জানতে চান যে এই নথিটি  
আপনার জন্য উপলব্ধিযোগ্য কিনা, তবে  
০১৫৮২ ৫৪৭ ০৮৭ নম্বরে যোগাযোগ করুন।

ISBN 978-0-9558932-1-6  
Produced and published by Planning Division  
Department of Environment & Regeneration  
Luton Borough Council  
Town Hall  
Luton LU1 2BQ