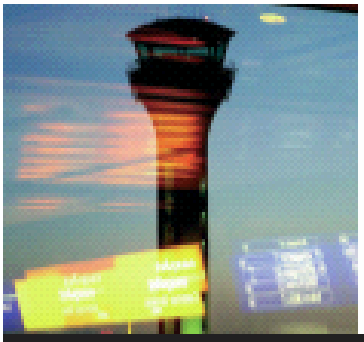


Annual Monitoring Report

2005

LUTON
BOROUGH COUNCIL

LONDON LUTON
AIRPORT

Preface

i. This report is the 27th Annual Monitoring Report (AMR) and unless otherwise stated, looks at the calendar year 2005. It has been produced jointly by Luton Borough Council and London Luton Airport Operations Ltd. (LLAOL).

ii. In 1978, Luton Borough Council, 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".

iii. The results are also used to monitor the performance of the Borough of Luton Local Plan approved in 1997 and constitute one of the material considerations when the Borough Council considers development proposals or determines planning applications for further development of the Airport.

iv. 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.

v. 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 Luton Borough Council. The information relating to household and population has been produced for LLAOL by URS Corporation Ltd. Figures are then subsequently validated via comparison with counts provided by Luton Borough Council in conjunction with Bedfordshire and Hertfordshire County Councils.

vi. This is the 19th Annual Monitoring Report to be prepared since London Luton Airport 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 Luton Borough Council's monitoring systems although this year the employment data is based on the Halcrow Study commissioned in relation to "Project 2030", the London Luton Airport (LLA) Master Plan.

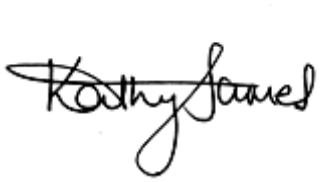
vii. The Report forms part of a series of joint monitoring documents produced by the Borough Council as Local Planning Authority and LLAOL.

viii. 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 15th November 1999. Subsequently the LLACC agreed the proposed move to the INM method on 13th December 1999.

ix. 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. The 2005 AMR continues the trend of improvement by including many new diagrams and presenting clear concise information. Sections 2-7 have been produced exclusively by LLAOL, with a validation exercise on the contour counts carried out by LBC. Sections 8-10 have been produced by LBC with data input on employment counts and car parking supplied by LLAOL.

x. 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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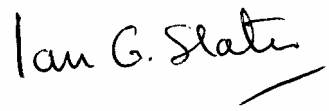
Sections 8-10



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Executive Summary for Sections 2-7

LLA served 9.1 million passengers in 2005, 21% more than in 2004. The services included nineteen new routes offering a total of 76 destinations during 2005. The aircraft movements consisted of 77,005 passenger movements out of the total activity in 2005 of 107,894.

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 has increased by 18% over that in 2004. No modification to the departure or arrival routes occurred; the busiest departure route being Compton, that is towards the Tring area.

The consequential noise has been monitored continuously at the three fixed noise monitors, and the Airport's noise contours updated. The individual noise of each departure has been compared to the daytime and night-time noise violation limits; no exceedences occurred during daytime, only one occurred at night. This reflects the same pattern as occurred in 2004.

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 (57 dB $L_{Aeq,16h}$) 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 2005	13.46	26.59

In essence the Airport is operating well within its planning limits. The daytime noise contour area has increased slightly from 2004; the night-time noise contour area has also increased by around 28%.

During 2005 a total of 718 complaints relating to LLA aircraft operations were received, more than the 534 in 2004. The number of complainants has also increased from 278 in 2004 to 364 in 2005. The aircraft operations for which most complaints arose were those of the Airbus 300 cargo aircraft.

In essence the Airport has served more passengers with more frequent aircraft movements without causing an increase in the incidence of noise violations by aircraft events. There has been a consequential increase in the area of noise contours, particularly at night, with an associated rise in the number of complaints.

Bickerdike Allen Partners

1. Background

1.1 The Airports Act 1986

1.1.1. As a result of the coming into force of this Act, the Borough Council 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 LLAOL, as the licensed managers and operators.

1.2 National Aviation Policy

1.2.1. The Government published a White Paper on Transport in July 1998, entitled "A New Deal For Transport". The general tenor of the New Deal concerning airports is that the Government wishes airport issues to become integrated with the rest of the transport system at the local, regional and national levels. The Government wishes to encourage greater use of less congested airports as a way of easing pressure on the main airport hubs. It expects airport operators to be partners in implementing initiatives to improve the quality of the public transport journey to their airports. Through Local Transport Plans, the needs of surface access to airports should be considered as part of a wider transport strategy for the local area, to help integrate airports into national public transport networks, and to facilitate improved rail access. The White Paper also recommended the formation of Airport Transport Forums to produce strategies for surface access to airports.

1.2.2. In July 2002 the Department of Transport published the South East and East of England Regional Air Services Study (SERAS), with a consultation period running until the end of November 2002. However, following a legal ruling that expansion at Gatwick airport should have been considered as an option, the Government published a revised edition of the Study in February 2003 and extended the consultation period until 30th June 2003.

1.2.3. Subsequently in December 2003 the Government published its White Paper "The Future of Air Transport in the UK" which set out its views for a balanced strategic framework for the development of national airport capacity. In this White Paper, as an integral part of this policy, the Government supported the growth of Luton up to the maximum use of a single full-length runway (circa 30m ppa 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.

1.2.4. In common with other airport operators, LLAOL was asked to provide a Master Plan 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 Master Plan in October 2005.

1.2.5. This draft Master Plan, comprising a suite of a total of 6 documents, outlined proposals for a replacement runway with associated facilities, taking into account the principles of sustainability and environmental affects as well as the role of regeneration for the area. Extensive public consultation was invited, and which is due to be completed by 27th January 2006. After due consideration, a final Master Plan is expected to be published in May 2006.

1.2.6. It is stressed that the Master Plan is not a planning application, and in line with Government advice, will be the subject of periodic review.

1.3 Developments at Luton

1.3.1. LLAOL has been pursuing a long-term strategy for expansion at the Airport. A partial parallel taxiway together with a terminal building were opened in November 1998 and November 1999 respectively. A major element of the proposed expansion strategy involved a multi-modal transport interchange at Luton Airport Parkway Station, which opened in November 1999. It comprises a three level station building connected to four platforms. Currently Airport passengers are being transported from the station to the terminal by shuttle bus. The proposed Translink guided busway between Luton and Dunstable should link up to the Parkway station and a tracked transit system to the Airport terminal may be built at a later date.

1.3.2. 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 adopted as Supplementary Planning Guidance by Luton Borough Council in September 2001. The adopted Development Brief is the current framework for planning applications and update of the Surface Access Strategy covering various modes of travel within the area. However, current policy will eventually be superseded by the new planning system and the new provisions of the Aviation White Paper (see sections 1.2.2 and 1.2.6 above).

1.3.3. The notable physical developments undertaken by LLAOL on the airport site in 2005 are as follows:-

- Fitting out of the upper floor of the terminal building to provide a new departure lounge
- Construction of a pier from the terminal serving the north and east aprons, with a new immigration hall
- Construction of a new two storey link containing a security presentation and arrivals area
- Refurbishment of the baggage reclaim area
- Enabling works for the resurfacing of the runway, scheduled for 2006

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

- the refurbishment of a building on the Airport Executive Park as a training facility for easyJet ground and cabin crew.
- the commencement of a comprehensive refurbishment programme of an existing hangar
- the approval of a new facility , yet to be commenced, for the Chiltern Air Support Unit for the police.

1.3.5. Further improvements were scheduled into 2005 and beyond, designed to improve operational efficiency as well as the passenger experience.

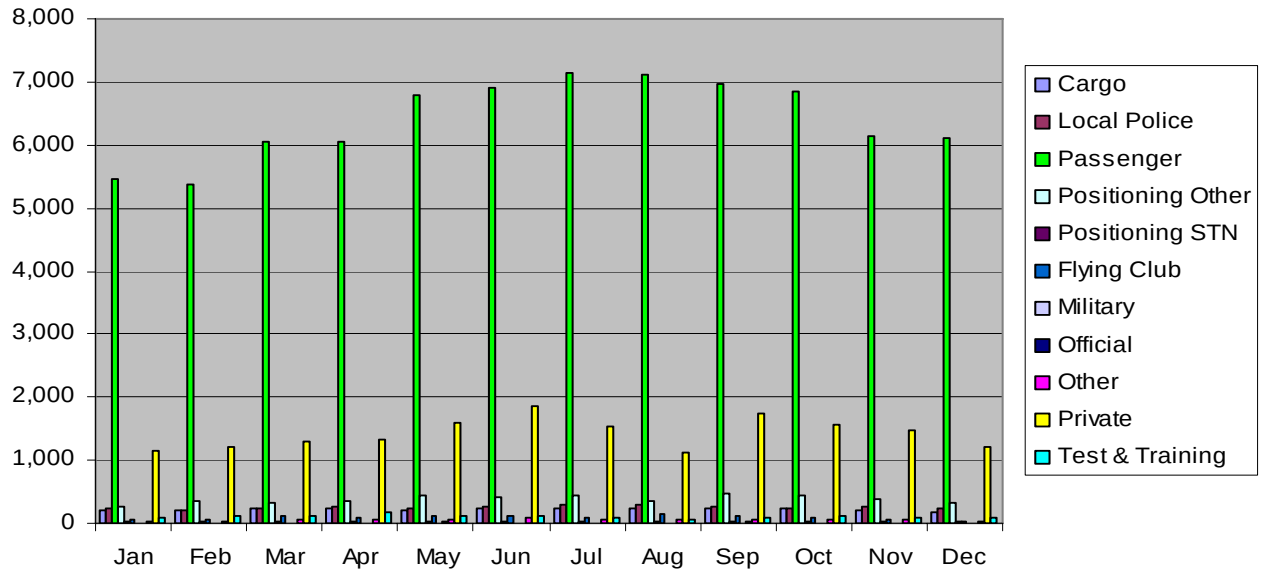
1.3.6. In 2005, 19 new scheduled LLA routes were launched as follows: easyJet – Bremen, Cagliari and Grenoble, Wizzair – Poznan, Ryanair – Knock, Shannon, Nimes, Esbjerg, Stockholm Vasteras, Venice Treviso, Barcelona Gerona, Barcelona Reus, Rome Ciampino and Murcia, Stryrian Spirit – Klagenfurt, Aer Arran – Isle of Man, Swe Fly – Stockholm Skavsta and Lahore, Helvetic - Zurich.

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 107,894 aircraft movements during 2005 (compared with 94,298 in 2004), an increase of 14%. This resulted in an average 296 movements per 24 hours (in comparison with 258 in 2004).

	Commercial						Non - Commercial							
	Cargo	Local Police	Passenger	Positioning		*Total*	Flying Club	Military	Official	Other	Private	Test & Training	*Total*	**Total**
				Other	STN									
Jan	212	248	5,467	260	28	*6,215*	53	0	5	39	1,146	81	*1,324*	**7,539**
Feb	200	215	5,362	341	41	*6,159*	58	0	0	30	1,214	123	*1,425*	**7,584**
Mar	228	247	6,065	321	43	*6,904*	120	0	2	56	1,286	112	*1,576*	**8,480**
Apr	233	273	6,061	364	25	*6,956*	97	2	6	57	1,332	177	*1,671*	**8,627**
May	218	222	6,800	454	25	*7,719*	118	4	16	72	1,588	131	*1,929*	**9,648**
Jun	239	251	6,909	426	24	*7,849*	117	0	9	82	1,850	129	*2,187*	**10,036**
Jul	245	290	7,148	435	35	*8,153*	84	6	9	53	1,546	98	*1,796*	**9,949**
Aug	229	282	7,112	369	30	*8,022*	141	6	4	55	1,119	60	*1,385*	**9,407**
Sep	229	260	6,977	485	28	*7,979*	114	0	16	60	1,733	86	*2,009*	**9,988**
Oct	244	250	6,850	434	31	*7,809*	78	4	2	65	1,563	118	*1,830*	**9,639**
Nov	197	264	6,141	396	30	*7,028*	60	2	4	62	1,488	74	*1,690*	**8,718**
Dec	168	245	6,113	335	36	*6,897*	34	0	4	42	1,225	77	*1,382*	**8,279**
2005 Total	**2,642**	**3,047**	**77,005**	**4,620**	**376**	***87,690***	**1,074**	**24**	**77**	**673**	**17,090**	**1,266**	***20,204***	**107,894**
2004 Total	**2,458**	**2,784**	**65,594**	**4,721**	**336**	***75,893***	**1,073**	**12**	**34**	**78**	**15,577**	**1,631**	***18,405***	**94,298**



2.1.1. Movement Classifications

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

2.2 Aircraft Movements by Weight

Aircraft Classifications (16 tonnes)

		2004	2005
Aircraft Over 16 Tonnes	Passenger	62,521	73,522
	Cargo	1,898	1,842
	Other	11,499	12,374
Aircraft Under 16 Tonnes	Passenger	3,073	3,483
	Cargo	560	800
	Other	14,747	15,873
TOTAL		**94,298**	**107,894**

2.3 Aircraft Types

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

Air Traffic Movements by IATA Code for the Months January to December 2005			
AEROSPATIALE CORVETTE	4	DASSAULT FALCON 2000	1,233
AIRBUS A300 FREIGHTER	540	DASSAULT FALCON 2000 EX	121
AIRBUS A300-600 (PAX)	128	DASSAULT FALCON 50	267
AIRBUS A310-300	26	DASSAULT FALCON 900	1,086
AIRBUS A319	1,536	DASSAULT FALCON 900EX	401
AIRBUS A320-100/200	6,735	DASSAUT FALCON 50EX	52
AIRBUS A321-100/200	642	DORNIER 328 JET (D328-300)	128
AIRBUS A330-200	2	DOUGLAS DC10 GENERIC	8
ANTONOV 72	8	DOUGLAS DC10-30	2
AVROLINER RJ100	14	DOUGLAS DC8-71 (PAX)	2
AVROLINER RJ70	20	DOUGLAS DC9-10	2
BAC 1-11 300/400 Srs	4	EMBRAER RJ135	534
BAC 1-11 500 Srs	2	EMBRAER RJ145	12
BAE 146-100	282	EMBRAER RJ170	14
BAE 146-200	366	FOKKER 100	564
BAE 146-300	64	FOKKER 70	22
BEECH 400 BEECHJET	285	GATES LEARJET 31	58
BOEING 727-100	50	GATES LEARJET 35	92
BOEING 727-200	63	GATES LEARJET 36	4
BOEING 737-200	48	GATES LEARJET 40	30
BOEING 737-300	19,154	GATES LEARJET 45	1,032
BOEING 737-400	24	GATES LEARJET 55	94
BOEING 737-500	10	GATES LEARJET 60	822
BOEING 737-700	24,273	GULFSTREAM	22
BOEING 737-800	12,058	GULFSTREAM 2	22
BOEING 747-200	2	GULFSTREAM 200	8
BOEING 757-200	4,869	GULFSTREAM 2B	43
BOEING 757-200 FREIGHTER	480	GULFSTREAM 3	295
BOEING 757-300	4	GULFSTREAM 4	2,803
BOEING 767-200	455	GULFSTREAM 400	20
BOEING 767-300	254	GULFSTREAM 550	348
BOEING BUSINESS JET (737-700)	368	GULFSTREAM V	1,519
BOEING BUSINESS JET2 (737-800)	109	HAWKER HORIZON RAYTHEON	8
BOMBADIER GLOBAL EXPRESS	874	HS125-100/200/300	114
CANADAIR CHALLENGER 300	86	HS125-1000	56
CANADAIR CHALLENGER 600	638	HS125-400	6
CANADAIR CHALLENGER 601	153	HS125-700	468
CANADAIR CHALLENGER 604	940	HS125-800	1,726
CANADAIR CRJ100	6	IAI 1123/1124 WESTWIND	2
CANADAIR CRJ200	30	IAI 1125 ASTRA JET	156
CANADAIR REGIONAL JET	74	IAI 1126 GALAXY	154
CESSNA 500 CITATION I	52	LOCKHEED JETSTAR II	5
CESSNA 525 CITATIONJET	356	MCD DOUGLAS DC9-82	14
CESSNA 525A CITATIONJET 2	366	MCD DOUGLAS DC9-83	64
CESSNA 550/551 CITATION 2/SP	1,646	MCD DOUGLAS MD87	14
CESSNA 560 CITATION 5	221	MCD DOUGLAS MD90	16
CESSNA 560XL CITATION EXCEL	1,880	MCDONNELL DOUGLAS MD11	2
CESSNA 650 CITATION 3	226	MITSUBISHI MU300 DIAMOND	4
CESSNA 750 CITATION X	548	RAYTHEON 390 PREMIER 1	294

.

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

CITATION SOVEREIGN	12	ROCKWELL SABRELINER 65/75	4
DASSAULT FALCON 10	18	UNSPEC BAE 146 FREIGHTER	2
DASSAULT FALCON 10/100	38	UNSPEC BOEING 727 FREIGHTER	2
DASSAULT FALCON 20	90	YAKOVLEV 42	58
DASSAULT FALCON 20/200	20	**Total**	**95,982**
AEROSPATIALE AS350 ECUREUIL	126		
AEROSPATIALE AS355 ECUREUIL 2	70	AEROSPATIALE ATR42-200/300	173
AEROSPATIALE AS365 DAUPHIN	4	AEROSPATIALE ATR42-400	224
AGUSTA A109	146	AEROSPATIALE ATR42-500	4
BELL 206 JET RANGER	16	AEROSPATIALE ATR72	2,366
BELL 206L LONG RANGER	4	ANTONOV 26	4
BELL 222	22	BAE 748	2
BELL 407	12	BAE ATP	8
BELL 430 HELICOPTER	2	BAE JETSTREAM 31	14
BOEING CHINOOK	2	BAE JETSTREAM 41	20
ENSTROM HELICOPTER	2	BEECH 1900	10
ENSTROM F28A & 280	2	BEECH 1900D	2
EUROCOPTER EC120	6	BEECH 200 KINGAIR	456
EUROCOPTER EC135*	3,049	BEECH 300 KINGAIR	4
EUROCOPTER EC155	194	BEECH 350 SUPER KING AIR	22
HUGHES 500	2	BEECH 90 KINGAIR	98
MCD DOUGLAS MD600	2	BEECH 99	2
MCD-DOUGLAS MD902 EXPLORER	4	CASA CN235	4
ROBINSON R44	4	CESSNA 172 SKYHAWK	2
SIKORSKY S76 SPIRIT	248	CESSNA 425 CORSAIR	2
SIKORSKY S92	10	CESSNA 441 CONQUEST	28
Total	**3,927**	CESSNA F406 CARAVAN	2
BEECH 33 DEBONAIR	2	CONVAIR 580	395
BEECH 35 BONANZA	2	DHC-8 (DASH 8) 300	2
BEECH 58 BARON	4	DHC-8 (DASH 8) 400	46
CESSNA 182	4	DORNIER 228	10
CESSNA 310	4	DORNIER 328	64
CESSNA 340	8	EMBRAER 120 BRASILIA	2
CESSNA 421	28	EMBRAER 121 XINGU	4
CESSNA LIGHT AIRCRAFT	2	FAIRCHILD FH-227	2
CIRRUS DESGN CORP CIRRUS 20/22	2	FOKKER 50	14
DIAMOND STAR DA-40	4	FOKKER F27	2
DORNIER 28 SKYSERVANT	2	L100/382B/C130 HERCULES	4
DOUGLAS DC3	6	LOCKHEED ELECTRA	126
EXTRA EA-300L	4	PIAGGIO P180 AVANTI	28
MOONEY M20J	177	PILATUS PC12	38
NAVION 4	2	PIPER PA31T TURBO PROP	4
PIPER PA23 APACHE/AZTEC	4	PIPER PA42 CHEYENNE 3/4	6
PIPER PA24 COMMANCHE	2	SAAB 2000	6
PIPER PA27 APACHE/AZTEC	2	SAAB 340	2
PIPER PA28 CHEROKEE	1,281	SHORTS 360	933
PIPER PA30 TWIN COMMANCHE	4	SOCATA TBM 700	132
PIPER PA31 NAVAJO	46	SWEARINGEN MERLIN 3	10
PIPER PA34 SENECA	112	SWEARINGEN METROLINER	44
PIPER PA46 MALIBU/MERIDIAN	6	**Total**	**5,321**
ROBIN HR2100 / R2160	2		
SOCATA TB10 TOBAGO	872	**Total**	**107,894**
SOCATA TB20 TRINIDAD	82		
Total	**2,664**		

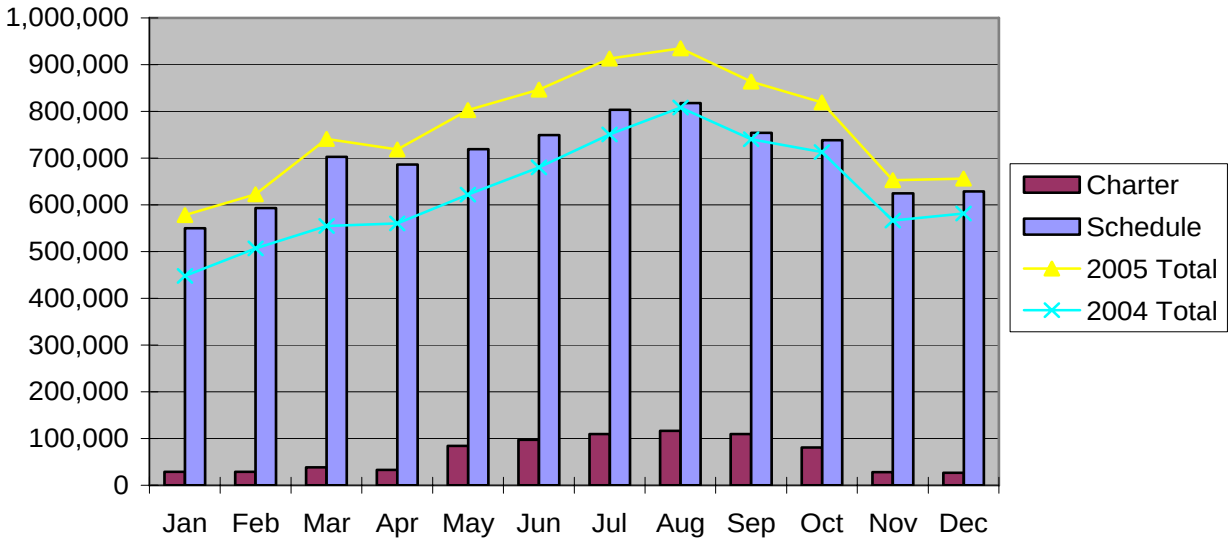
* Of the total helicopter movements recorded for 2005 the Chiltern Air Support Police Helicopter Unit accounted for 3,047 flights or 78%

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 never sold directly by the airline. Scheduled are regular flights organized by the company which owns the aircraft.

A total of 9,149,628 passengers were handled at LLA during 2005: 8,368,200 on scheduled flights (91%) and 781,428 on charter flights (9%). This represents an overall increase in passengers of 21% compared with 2004.

	2004			2005		
	Charter	Schedule	**Totals**	Charter	Schedule	**Totals**
Jan	33,136	414,879	**448,015**	28,558	549,711	**578,269**
Feb	36,953	470,189	**507,142**	28,959	593,315	**622,274**
Mar	44,899	510,152	**555,051**	38,353	702,636	**740,989**
Apr	51,822	508,379	**560,201**	32,705	685,978	**718,683**
May	81,330	540,580	**621,910**	84,115	718,927	**803,042**
Jun	103,484	576,774	**680,258**	97,148	749,572	**846,720**
Jul	117,444	633,205	**750,649**	109,556	803,261	**912,817**
Aug	148,644	659,679	**808,323**	116,590	818,126	**934,716**
Sep	117,619	622,510	**740,129**	109,665	754,358	**864,023**
Oct	82,818	630,152	**712,970**	80,731	738,276	**819,007**
Nov	31,355	534,968	**566,323**	27,996	624,947	**652,943**
Dec	33,314	548,097	**581,411**	27,052	629,093	**656,145**
Totals	**882,818**	**6,649,564**	**7,532,382**	**781,428**	**8,368,200**	**9,149,628**



2.5 Average passenger load per passenger carrying aircraft.

Average Passengers on Schedule and Charter Flights			
Year	Charter	Schedule	**Total**
2001	165.10	115.53	**124.92**
2002	156.82	116.11	**121.28**
2003	150.18	115.39	**119.02**
2004	143.34	117.64	**120.14**
2005	131.90	123.33	**124.01**

N.B Air-Taxis, a small proportion of private aircraft, have now been excluded from this report, which has resulted in small changes to the Scheduled figures and a significant increase to the Charter figures. The report also includes updated figures for 2001 to 2004 to enable a comparison to be made.

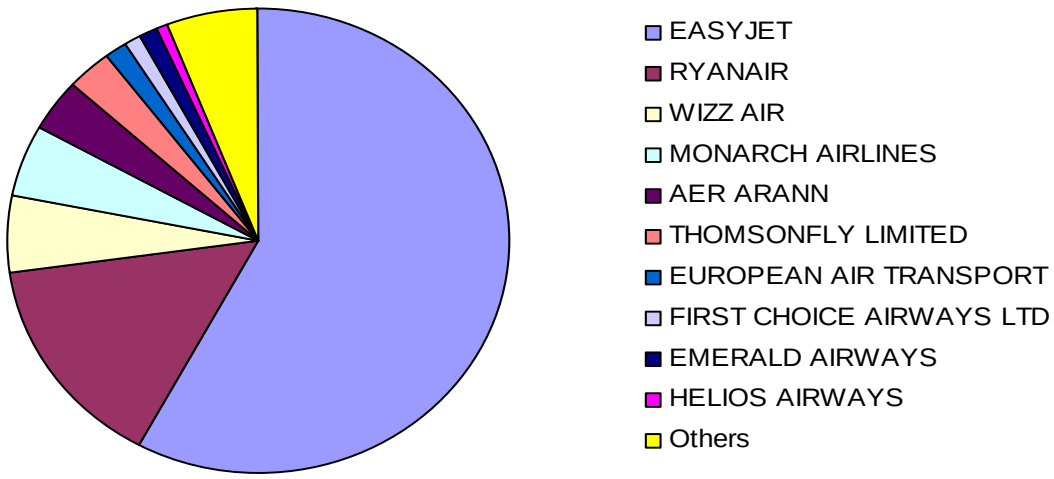
2.6 Passenger Breakdown by Region

	2004				2005			
	Domestic	EU	Non-EU	**Total**	Domestic	EU	Non-EU	**Total**
Jan	115,325	232,613	100,077	**448,015**	112,644	374,471	91,154	**578,269**
Feb	134,595	268,018	104,529	**507,142**	120,137	415,708	86,429	**622,274**
Mar	143,672	296,062	115,317	**555,051**	139,173	501,623	100,193	**740,989**
Apr	133,469	308,494	118,238	**560,201**	136,291	497,941	84,451	**718,683**
May	134,201	399,328	88,381	**621,910**	138,631	582,117	82,294	**803,042**
Jun	138,230	444,591	97,437	**680,258**	141,015	622,680	83,025	**846,720**
Jul	149,865	495,094	105,690	**750,649**	146,585	676,215	90,017	**912,817**
Aug	148,260	548,717	111,346	**808,323**	147,944	693,284	93,488	**934,716**
Sep	137,235	507,348	95,546	**740,129**	139,701	638,058	86,264	**864,023**
Oct	141,953	479,842	91,175	**712,970**	139,695	591,925	87,387	**819,007**
Nov	132,226	360,672	73,425	**566,323**	127,172	450,363	75,408	**652,943**
Dec	130,031	368,758	82,622	**581,411**	125,220	448,913	82,012	**656,145**
Totals	**1,639,062**	**4,709,537**	**1,183,783**	**7,532,382**	**1,614,208**	**6,493,298**	**1,042,122**	**9,149,628**

2.7 Movements by ten largest operators

Operator	**Movements**	**%**
EASYJET	44,135	58%
RYANAIR	11,408	15%
WIZZ AIR	4,079	5%
MONARCH AIRLINES	3,895	5%
AER ARANN	2,577	3%
THOMSONFLY LIMITED	2,424	3%
EUROPEAN AIR TRANSPORT	1,125	1%
FIRST CHOICE AIRWAYS LTD	903	1%
EMERALD AIRWAYS	786	1%
HELIOS AIRWAYS	697	1%
Others	*4,353*	*6%*
TOTAL	**76,382**	**100%**

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



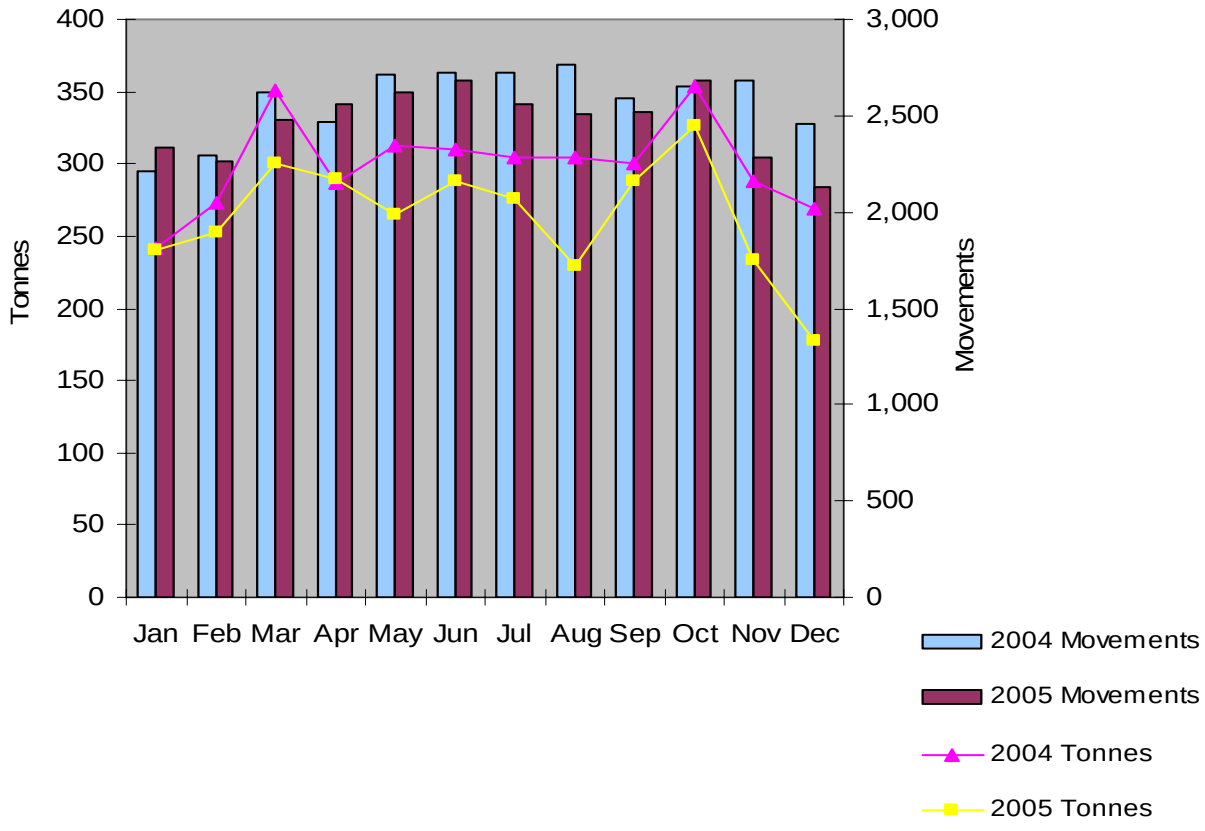
2.8 Movements and average seats by aircraft type

		Movements	Average Seats
EASYJET	AIRBUS A319	1,286	156
	AIRBUS A321-100/200	2	220
	BOEING 737-300	18,811	148
	BOEING 737-700	24,026	149
	BOEING 737-800	3	189
	BOEING 757-200	6	235
	MCD DOUGLAS DC9-83	1	162
	Total	***44,135***	***149***
RYANAIR	AIRBUS A320-100/200	88	180
	AIRBUS A321-100/200	12	220
	BOEING 737-200	3	130
	BOEING 737-800	11,305	189
	Total	***11,408***	***189***
WIZZ AIR	AIRBUS A320-100/200	4,075	180
	MCD DOUGLAS DC9-82	4	160
	Total	***4,079***	***180***
MONARCH AIRLINES	AIRBUS A300-600 (PAX)	64	361
	AIRBUS A320-100/200	1,408	180
	AIRBUS A321-100/200	531	220
	AIRBUS A330-200	2	374
	BOEING 737-400	6	172
	BOEING 757-200	1,884	235
	Total	***3,895***	***215***
AER ARANN	AEROSPATIALE ATR42-400	220	49
	AEROSPATIALE ATR72	2,357	68
	Total	***2,577***	***66***
THOMSONFLY LIMITED	AIRBUS A310-300	7	258
	BOEING 737-300	14	148
	BOEING 737-500	1	131
	BOEING 737-800	13	189
	BOEING 757-200	1,964	235
	BOEING 767-200	396	275
	BOEING 767-300	29	323
	Total	***2,424***	***242***
EUROPEAN AIR TRANSPORT (cargo)	AIRBUS A300 FREIGHTER	24	0
	BOEING 757-200	746	0
	CONVAIR 580	355	0
	Total	***1,125***	***0***
FIRST CHOICE AIRWAYS LTD	AIRBUS A320-100/200	863	180
	BOEING 757-200	40	233
	Total	***903***	***182***
EMERALD AIRWAYS	BAE 748	1	58
	BAE ATP	4	68
	SHORTS 360	781	34
	Total	***786***	***34***
HELIOS AIRWAYS	AIRBUS A319	87	156
	AIRBUS A320-100/200	8	180
	BOEING 737-300	79	136
	BOEING 737-800	521	189
	BOEING 757-200	2	235
	Total	***697***	***179***
Others	***Total***	***4,353***	***62***
TOTAL		**76,382**	**154**

2.9 Cargo tonnes & movements

	2004		2005	
	Tonnes	Movements	Tonnes	Movements
Jan	1,809	295	1,804	311
Feb	2,046	306	1,891	302
Mar	2,632	349	2,254	331
Apr	2,152	329	2,167	341
May	2,342	362	1,989	350
Jun	2,326	363	2,160	358
Jul	2,282	363	2,066	341
Aug	2,286	368	1,724	335
Sep	2,251	346	2,162	336
Oct	2,650	353	2,449	357
Nov	2,162	357	1,750	304
Dec	2,020	328	1,329	284
Total	**26,958**	**4,119**	**23,745**	**3,950**

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	Scheduled Operator	Charter Operator
Aberdeen	*ABZ*	easyJet	
Alicante	*ALC*	easyJet / Monarch Scheduled	Thomson / Thomas Cook
Almeria	*LEI*		First Choice
Amsterdam	*AMS*	easyJet	
Antalya	*AYT*		Thomas Cook
Arrecife	*ACE*	Monarch Scheduled	First Choice / Thomson / Thomas Cook / Monarch
Athens	*ATH*	easyJet	
Barcelona	*BCN*	easyJet	
Basel	*BSL*	easyJet	
Belfast Intl.	*BFS*	easyJet	
Berlin Schonefeld	*SXF*	easyJet	
Bodrum	*BJV*		First Choice
Bourgas	*BOJ*		First Choice / Thomson
Bratislava	*BTS*	easyJet	
Bremen	*BRE*	easyJet	
Brest	*BES*	Ryanair	
Budapest	*BUD*	easyJet / Budapest	
Cagliari	*CAG*	easyJet	
Corfu	*CFU*		First Choice / Thomson / Thomas Cook / Monarch
Dalaman	*DLM*		First Choice / Thomson / Thomas Cook
Dortmund	*DTM*	easyJet	
Dublin	*DUB*	Ryanair	
Edinburgh	*EDI*	easyJet	
Esbjerg	*EBJ*	Ryanair	
Faro	*FAO*	easyJet / Monarch Scheduled	First Choice / Thomson / Thomas Cook
Fuerteventura	*FUE*		First Choice / Thomas Cook
Funchal	*FNC*		First Choice / Thomson
Galway	*GWY*	AerArann	
Gdansk	*GDN*	WizzAir	
Geneva	*GVA*	easyJet	
Gerona	*GRO*	Ryanair	Thomson
Gibraltar	*GIB*	Monarch Scheduled	
Glasgow	*GLA*	easyJet	
Grenoble	*GNB*	easyJet	
Ibiza	*IBZ*		First Choice / Thomson / Thomas Cook
Inverness	*INV*	easyJet	
Isle of Man	*IOM*	AerArann / BA CitiExpress	
Jersey	*JER*	flybe	
Klagenfurt	*KLU*	Styrian Spirit	
Katowice	*KTW*	WizzAir	
Kefalonia	*EFL*		First Choice / Thomson
Kos	*KGS*		Thomson
Krakow	*KRK*	easyJet	
Knock	*NOC*	Ryanair	

AIRPORT	CODE	Scheduled Operator	Charter Operator
Lahore	*LHE*	Swe Fly	
Larnaca	*LCA*	Helios Airways	First Choice / Thomson / Thomas Cook
Las Palmas	*LPA*	Monarch Scheduled	First Choice / Thomson / Thomas Cook / Monarch
Lorient	*LRT*	AerArann	
Madrid	*MAD*	easyJet	
Mahon	*MAH*	Monarch Scheduled	First Choice / Thomson
Malaga	*AGP*	easyJet / Monarch Scheduled	Thomson
Malta	*MLA*		Thomson
Milan Bergamo	*BGY*	Ryanair	
Monastir	*MIR*		First Choice / Thomas Cook
Murcia	*MJV*	Ryanair	
Naples	*NAP*		Thomson
Nice	*NCE*	easyJet	
Nimes	*FNI*	Ryanair	
Ovda	*VDA*		First Choice
Palma	*PMI*	easyJet	First Choice / Thomson / Thomas Cook / Monarch
Paphos	*PFO*	Helios Airways	First Choice / Thomson / Thomas Cook
Paris-CDG	*CDG*	easyJet	
Poznan	*POZ*	WizzAir	
Reus	*REU*	Ryanair	Thomson/Thomas Cook/Monarch
Rhodes	*RHO*		Thomson
Rome Ciampino	*CIA*	Ryanair	
Rovaniemi	*RVN*		First Choice
Shannon	*SNN*	Ryanair	
Sharm-El-Sheik	*SSH*		Thomson
Stockholm Skavsta	*NYO*	Swe Fly	
Stockholm Vasteras	*VST*	Ryanair	
Tenerife	*TFS*	Monarch Scheduled	First Choice / Thomson / Thomas Cook
Thessalonika	*SKG*		Thomson
Turin	*TRN*	easyJet	
Venice Treviso	*TSF*	Ryanair	
Verona	*VRN*		Thomson
Warsaw	*WAW*	easyJet/WizzAir	
Waterford	*WAT*	AerArann	
Zakynthos	*ZTH*		Thomson / Thomas Cook / Monarch
Zurich	*ZRH*	HelveticAirways	

Denotes new for 2006

For more information visit:- www.london-luton.com

3.1 New Routes (Scheduled)

Route	Launch Date	Airline
2006		
Lorient	26-Mar-06	Aer Arran
Brest	21-Feb-06	Ryanair
2005		
Klagenfurt	17-Dec-05	Styrian Spirit
Isle Of Man	24-Nov-05	Aer Arran
Bremen	31-Oct-05	easyJet
Knock	30-Oct-05	Ryanair
Poznan	18-Sep-05	Wizz Air
Stockholm Skavsta	17-Jun-05	Swe Fly
Lahore	17-Jun-05	Swe Fly
Zurich	15-May-05	Helvetic
Shannon	03-May-05	Ryanair
Cagliari	21-Apr-05	easyJet
Grenoble	20-Apr-05	easyJet
Nimes	19-Jan-05	Ryanair
Esbjerg	19-Jan-05	Ryanair
Stockholm Vasteras	19-Jan-05	Ryanair
Venice Treviso	19-Jan-05	Ryanair
Barcelona Gerona	19-Jan-05	Ryanair
Barcelona Reus	19-Jan-05	Ryanair
Rome Ciampino	12-Jan-05	Ryanair
Murcia	12-Jan-05	Ryanair

AIRLINE	NEW ROUTES
Aer Arran	1
Ryanair	1
TOTAL	**2**

AIRLINE	NEW ROUTES
Aer Arran	1
easyJet	3
Helvetic	1
Ryanair	10
Swe Fly	2
Styrian Spirit	1
Wizz	1
TOTAL	**19**

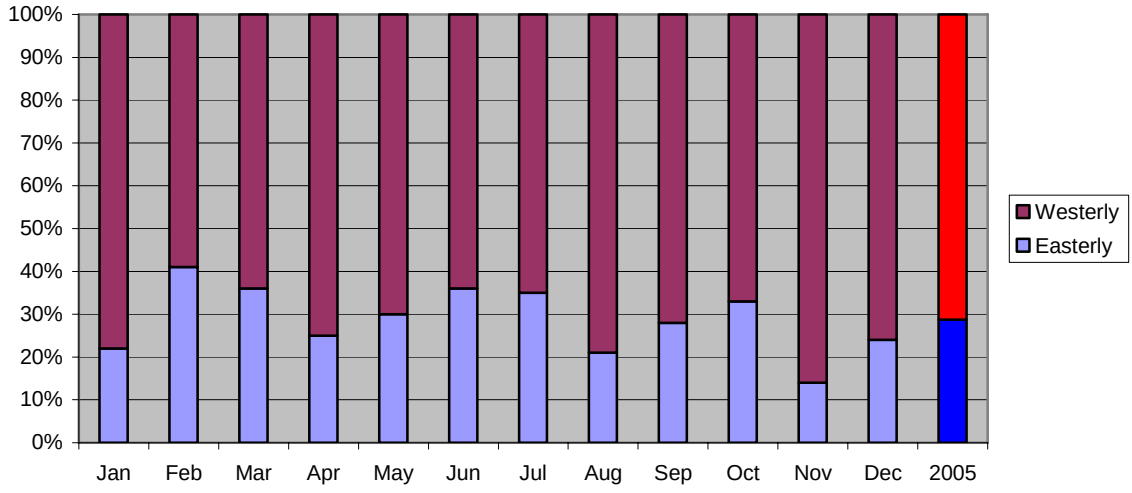
4. Runway Usage

The runway usage split (principally dictated by wind direction) during 2005 was 29% easterly and 71% westerly (compared with 26% / 74% for 2004).

A breakdown of runway usage split over the last five years is shown below, giving a historical split of 31% easterly and 69% westerly.

Year	Easterly	Westerly
2005	29%	71%
2004	26%	74%
2003	37%	63%
2002	33%	67%
2001	31%	69%
Average	**31%**	**69%**

Month	Easterly	Westerly
Jan	22%	78%
Feb	41%	59%
Mar	36%	64%
Apr	25%	75%
May	30%	70%
Jun	36%	64%
Jul	35%	65%
Aug	21%	79%
Sep	28%	72%
Oct	33%	67%
Nov	14%	86%
Dec	24%	76%
2005	**29%**	**71%**



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 (16th June – 15th September). As part of the Night Jet Policy, LLA also produces an 8 hour night time contour on a quarterly basis.

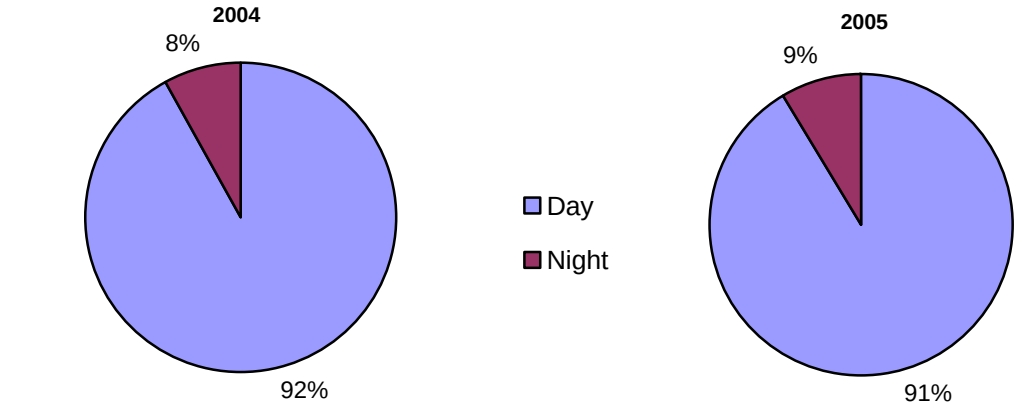
	Day (0700-2300 local)		Night (2300-0700 local)	
Year	Westerly	Easterly	Westerly	Easterly
2005	67%	33%	69%	31%
2004	79%	21%	77%	23%
2003	68%	32%	67%	33%
2002	63%	37%	64%	36%
2001	75%	25%	78%	22%
Average	**70%**	**30%**	**71%**	**29%**

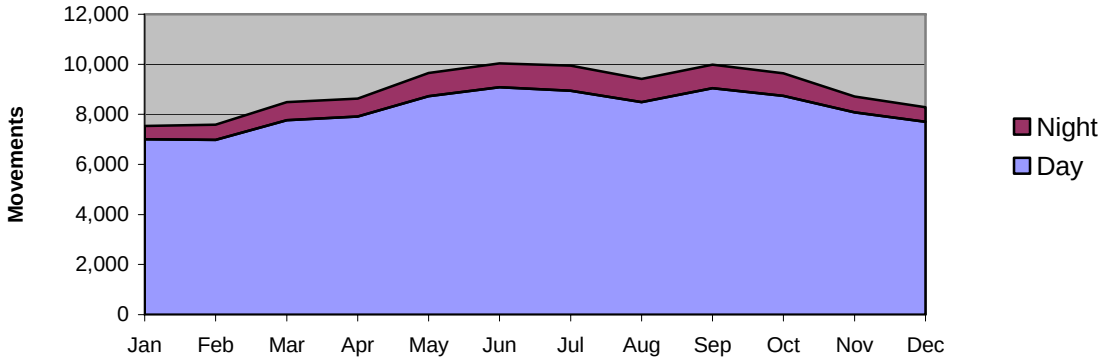
4.2 Day / Night Ratio of Movements

There were 9,423 night movements during 2005 (compared to 7,976 for 2004 an increase of 18%), an average 26 movements per night (compared to 22 last year). The average ratio of total aircraft movements during 2005 was 91% day / 9% night (compared to 92% day / 8% night in 2004).

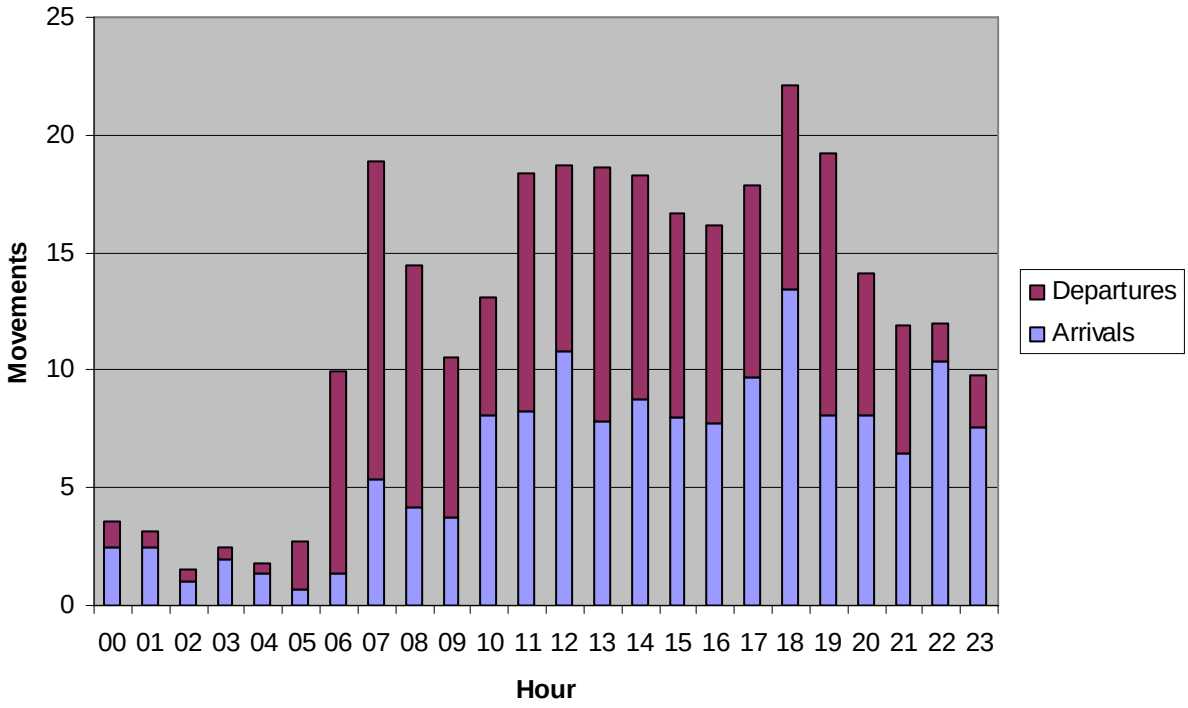
(It should be noted that the number of night movements quoted here within Section 4.2 will differ from those within Section 6 as the 8 hour Leq contour calculation period extends between 23:00 - 07:00, 7 days a week. The figures quoted here cover the night period, as defined in the Night Jet Policy for 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	3,455	328	3,547	209	**7,002**	**537**	**7,539**
Feb	3,395	393	3,576	220	**6,971**	**613**	**7,584**
Mar	3,765	470	4,003	242	**7,768**	**712**	**8,480**
Apr	3,837	479	4,077	234	**7,914**	**713**	**8,627**
May	4,196	634	4,535	283	**8,731**	**917**	**9,648**
Jun	4,348	670	4,733	285	**9,081**	**955**	**10,036**
Jul	4,255	714	4,690	290	**8,945**	**1,004**	**9,949**
Aug	4,074	630	4,418	285	**8,492**	**915**	**9,407**
Sep	4,313	681	4,735	259	**9,048**	**940**	**9,988**
Oct	4,200	626	4,536	277	**8,736**	**903**	**9,639**
Nov	3,937	424	4,142	215	**8,079**	**639**	**8,718**
Dec	3,730	396	3,974	179	**7,704**	**575**	**8,279**
Total	**47,505**	**6,445**	**50,966**	**2,978**	**98,471**	**9,423**	**107,894**

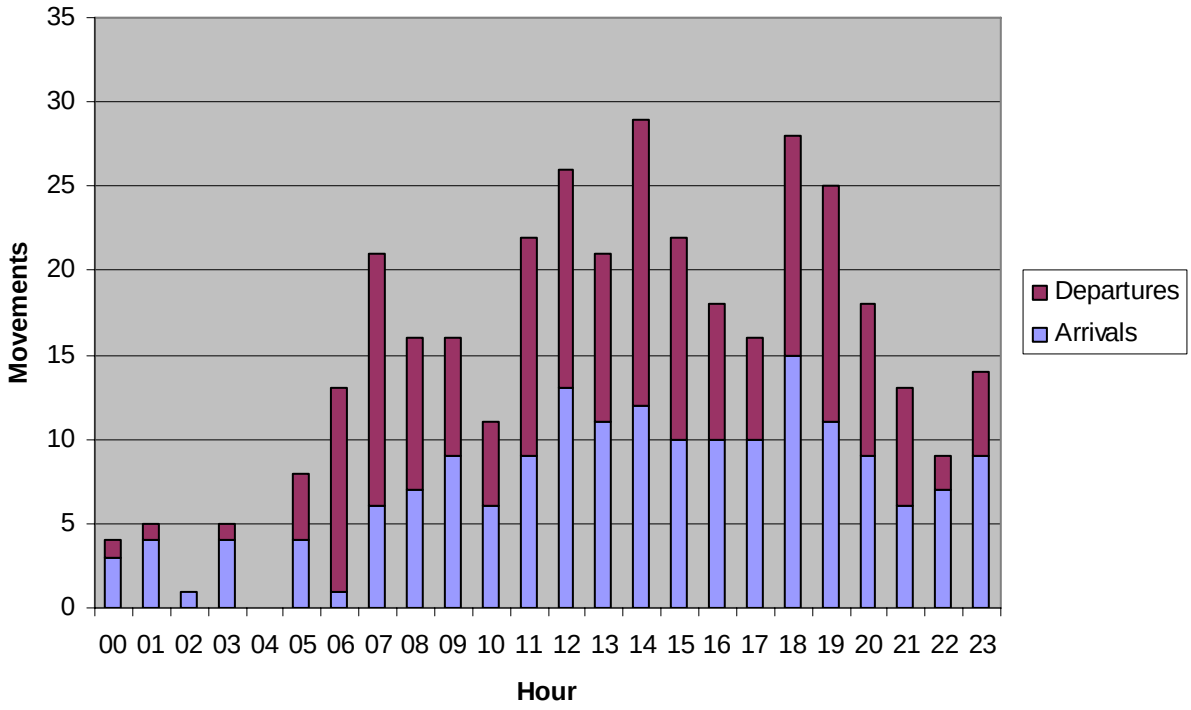




4.3 Annual Average Hourly Movements



4.4 Average Hourly Movements 7th Busiest Day of 2005 (9th September 2005)



4.4.1. From the above two graphs it can be seen that the busiest hour for movements is between 18:00-19:00 annually and 14:00-15:00 on the 7th busiest day (a typical busy summers day). On both graphs the busiest time for departing aircraft is 07:00-08:00 and 18:00-19:00 for arrivals.

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		
	Day	258	898	302	1,020	170	658	35	117	89	**3,547**
Jan	Night	14	65	13	40	6	27	3	10	31	**209**
	Total	***272***	***963***	***315***	***1,060***	***176***	***685***	***38***	***127***	***120***	***3,756***
	Day	462	698	549	801	340	452	80	101	93	**3,576**
Feb	Night	43	59	24	28	16	20	9	3	18	**220**
	Total	***505***	***757***	***573***	***829***	***356***	***472***	***89***	***104***	***111***	***3,796***
	Day	444	818	555	975	318	568	55	167	103	**4,003**
Mar	Night	38	61	22	37	17	28	2	13	24	**242**
	Total	***482***	***879***	***577***	***1,012***	***335***	***596***	***57***	***180***	***127***	***4,245***
	Day	304	921	420	1,171	207	685	55	191	123	**4,077**
Apr	Night	31	59	26	41	8	26	1	3	39	**234**
	Total	***335***	***980***	***446***	***1,212***	***215***	***711***	***56***	***194***	***162***	***4,311***
	Day	366	970	557	1,307	296	683	79	187	90	**4,535**
May	Night	30	74	23	56	12	39	2	4	43	**283**
	Total	***396***	***1,044***	***580***	***1,363***	***308***	***722***	***81***	***191***	***133***	***4,818***
	Day	501	921	727	1,232	347	651	84	136	134	**4,733**
Jun	Night	39	75	30	53	14	30	2	6	36	**285**
	Total	***540***	***996***	***757***	***1,285***	***361***	***681***	***86***	***142***	***170***	***5,018***
	Day	482	918	685	1,299	329	637	56	148	136	**4,690**
Jul	Night	47	72	38	54	13	28	1	3	34	**290**
	Total	***529***	***990***	***723***	***1,353***	***342***	***665***	***57***	***151***	***170***	***4,980***
	Day	261	1,040	330	1,511	188	766	39	148	135	**4,418**
Aug	Night	26	81	18	75	16	24	3	5	37	**285**
	Total	***287***	***1,121***	***348***	***1,586***	***204***	***790***	***42***	***153***	***172***	***4,703***
	Day	404	1,048	580	1,356	273	737	50	141	146	**4,735**
Sep	Night	34	85	26	52	4	27	1	3	27	**259**
	Total	***438***	***1,133***	***606***	***1,408***	***277***	***764***	***51***	***144***	***173***	***4,994***
	Day	485	945	587	1,188	333	682	62	131	123	**4,536**
Oct	Night	30	77	23	58	17	32	1	4	35	**277**
	Total	***515***	***1,022***	***610***	***1,246***	***350***	***714***	***63***	***135***	***158***	***4,813***
	Day	197	1,180	209	1,254	141	848	28	153	132	**4,142**
Nov	Night	11	73	1	41	6	40	0	4	39	**215**
	Total	***208***	***1,253***	***210***	***1,295***	***147***	***888***	***28***	***157***	***171***	***4,357***
	Day	313	954	346	1,115	248	742	27	111	118	**3,974**
Dec	Night	12	56	5	23	7	30	5	1	40	**179**
	Total	***325***	***1,010***	***351***	***1,138***	***255***	***772***	***32***	***112***	***158***	***4,153***
Day Total		***4,477***	***11,311***	***5,847***	***14,229***	***3,190***	***8,109***	***650***	***1,731***	***1,422***	***50,966***
Night Total		***355***	***837***	***249***	***558***	***136***	***351***	***30***	***59***	***403***	***2,978***
Total		**2,863**	**8,436**	**4,989**	**14,693**	**3,085**	**8,816**	**682**	**2,078**	**1,503**	**53,944**

** 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 Flight routes and sample flight tracks

Figures 4.7 and 4.8 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 4.9 and 4.10 display actual radar flight data taken over a 24 hour period during the summer 2005 for both westerly and easterly operations. Arriving traffic is shown in red with departures in green.

Figures 4.11 and 4.12 show the same 24 hour periods as above, displaying the aircraft radar data in altitude bands of 1000ft increments (up to 8000ft 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 4.13, 4.14 and 4.15 display aircraft track density plots. 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.

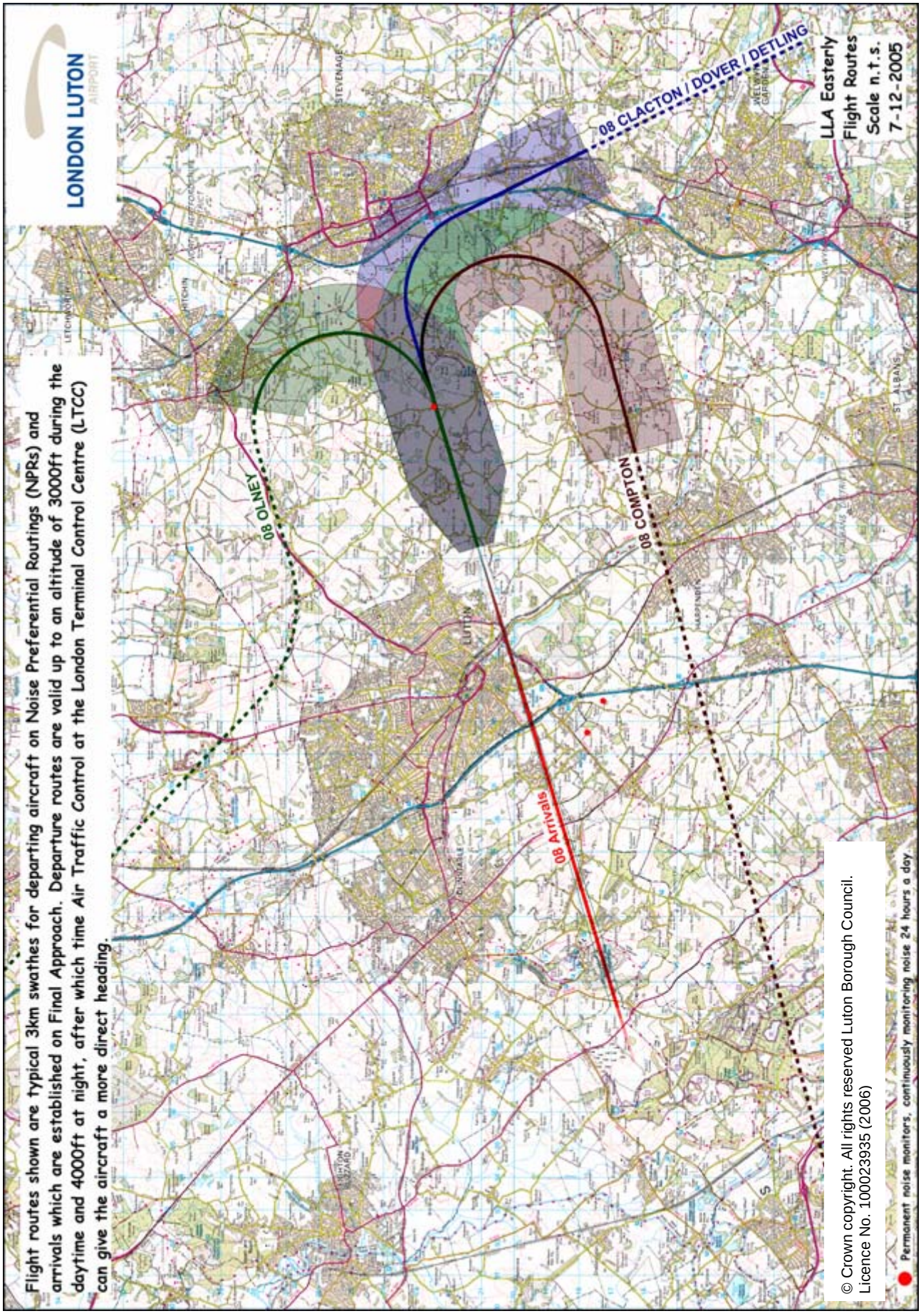
Figures 4.13 and 4.14 show single 24 hour periods of easterly and westerly operations and Figure 4.15 shows the track density plot for LLA for all operations during July 2005.

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 month was less than 3 flights per month.

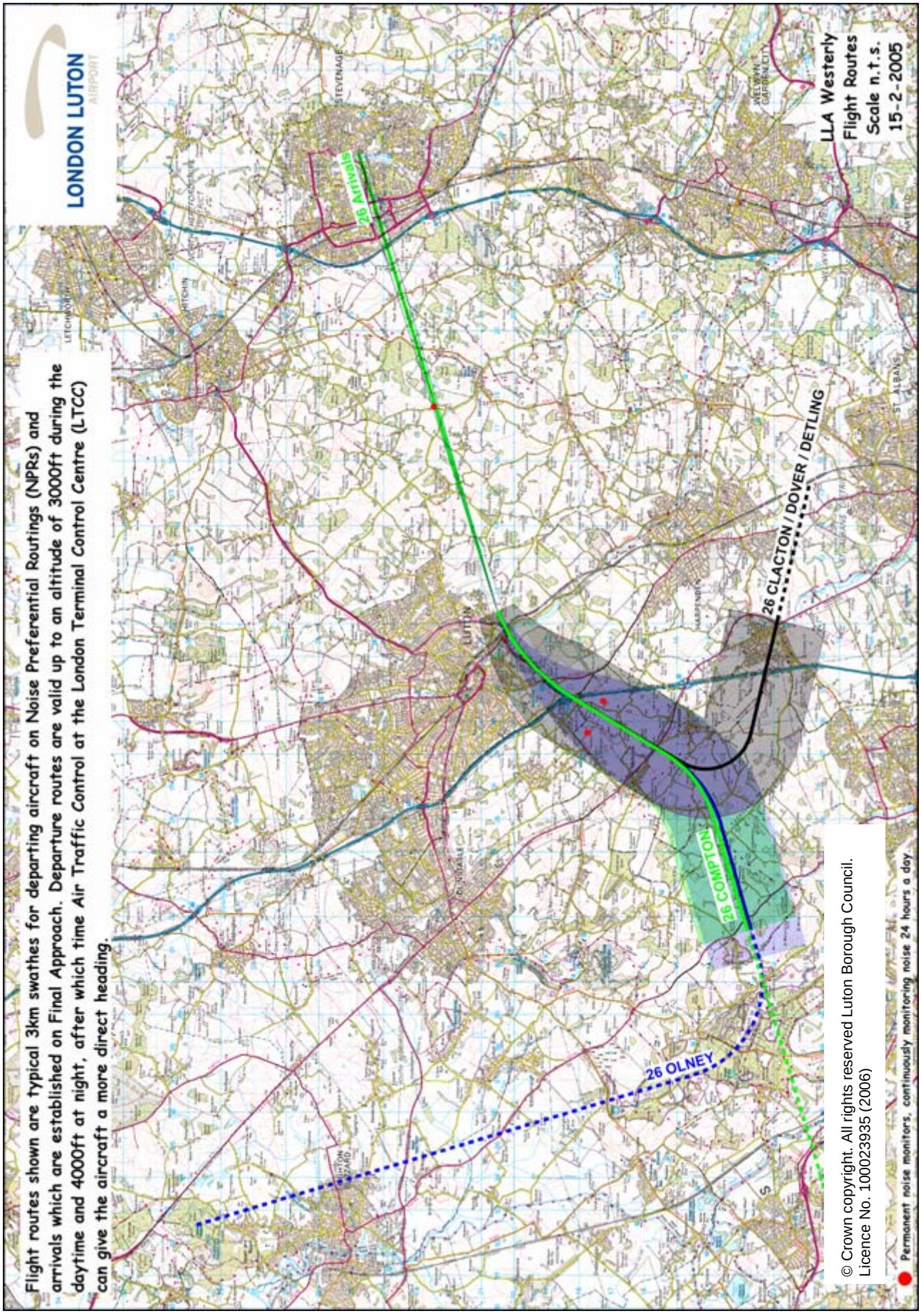
The yellow areas represent locations where operations are more densely concentrated over the given period.

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.

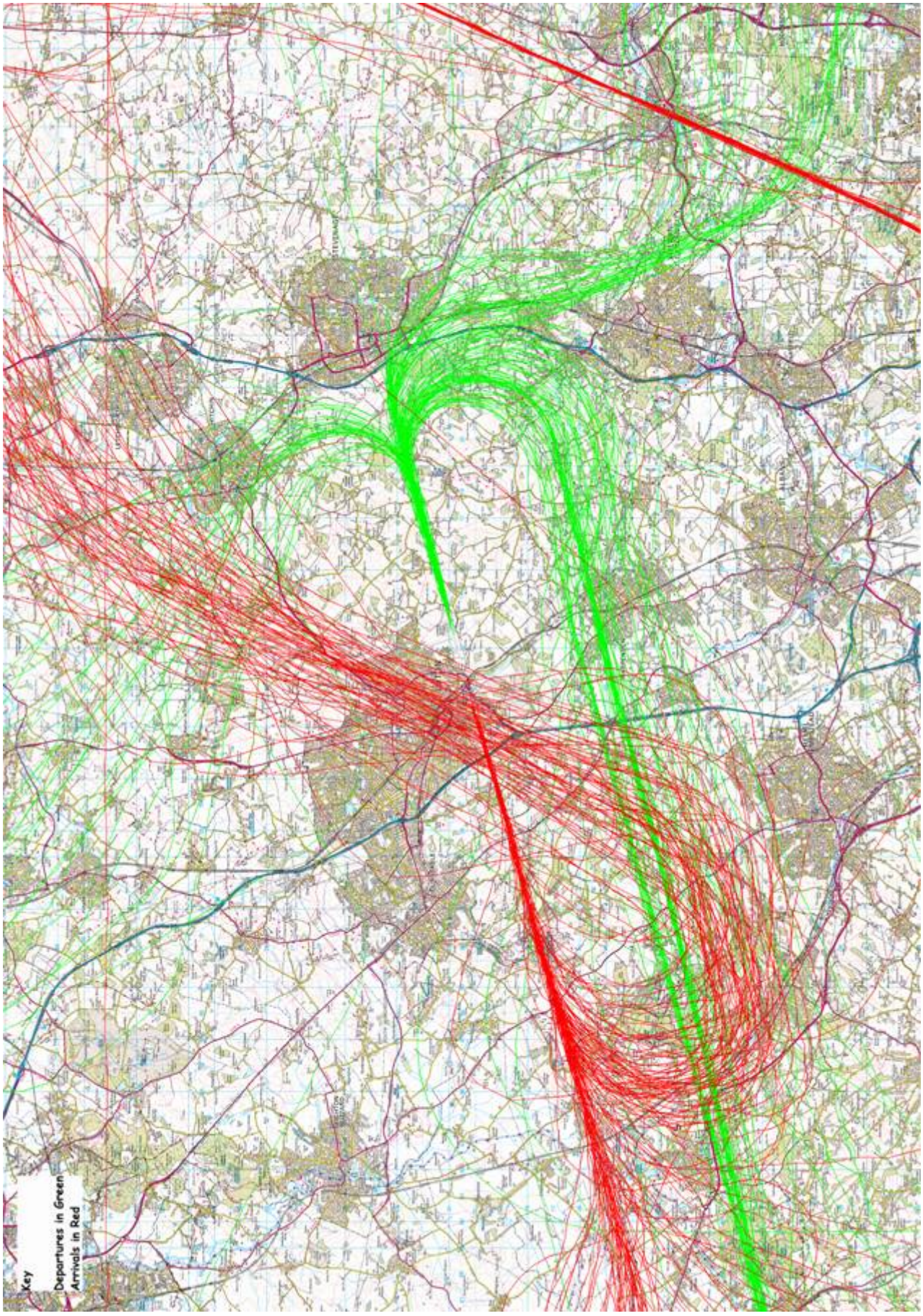
4.7 Plan showing Easterly (08) flight routes



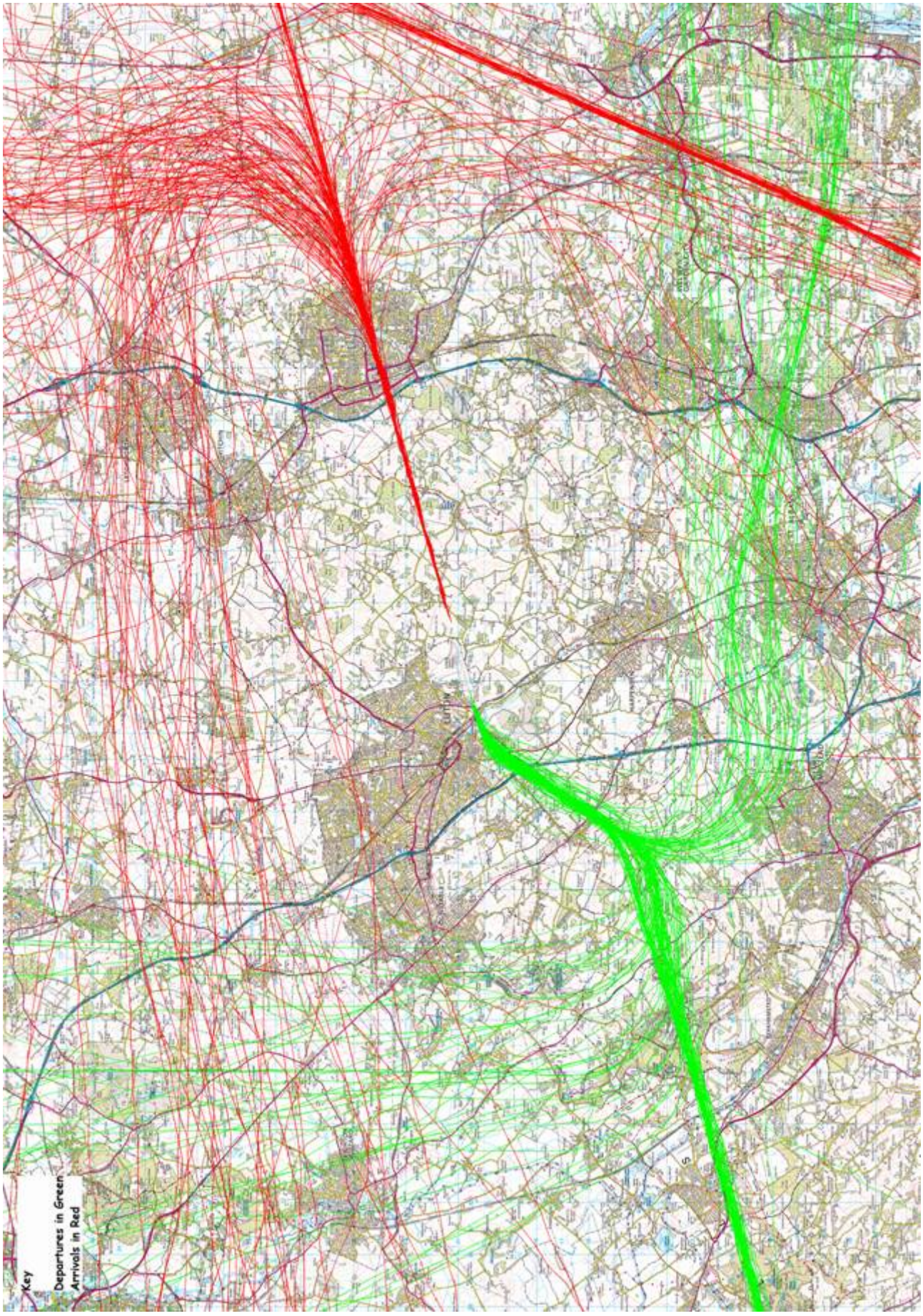
4.8 Plan showing Westerly (26) flight routes



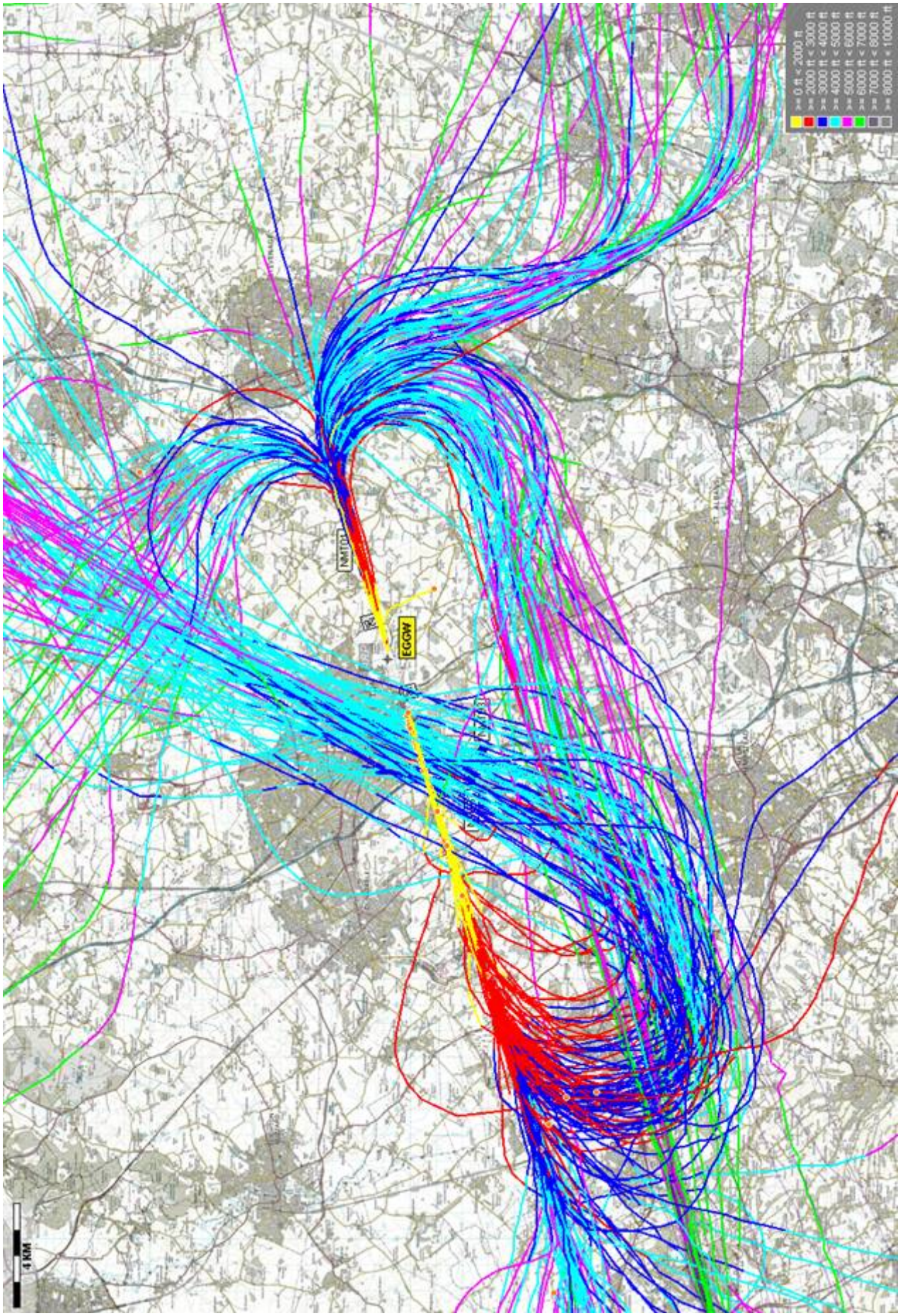
4.9 Arrivals and Departures – Easterly (08) Flight Routes (24 hour period)



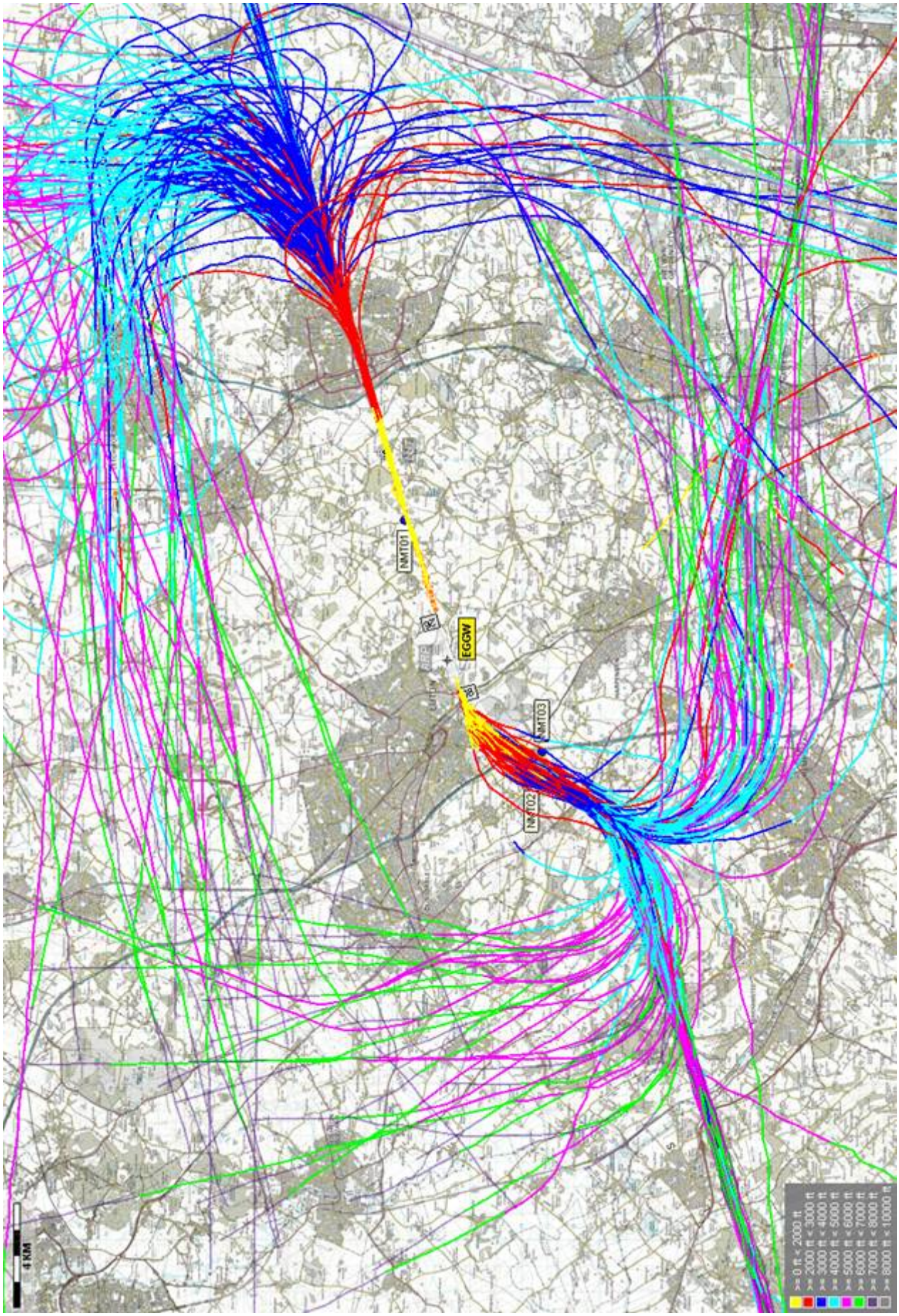
4.10 Arrivals and Departures – Westerly (26) Flight Routes (24 hour period)



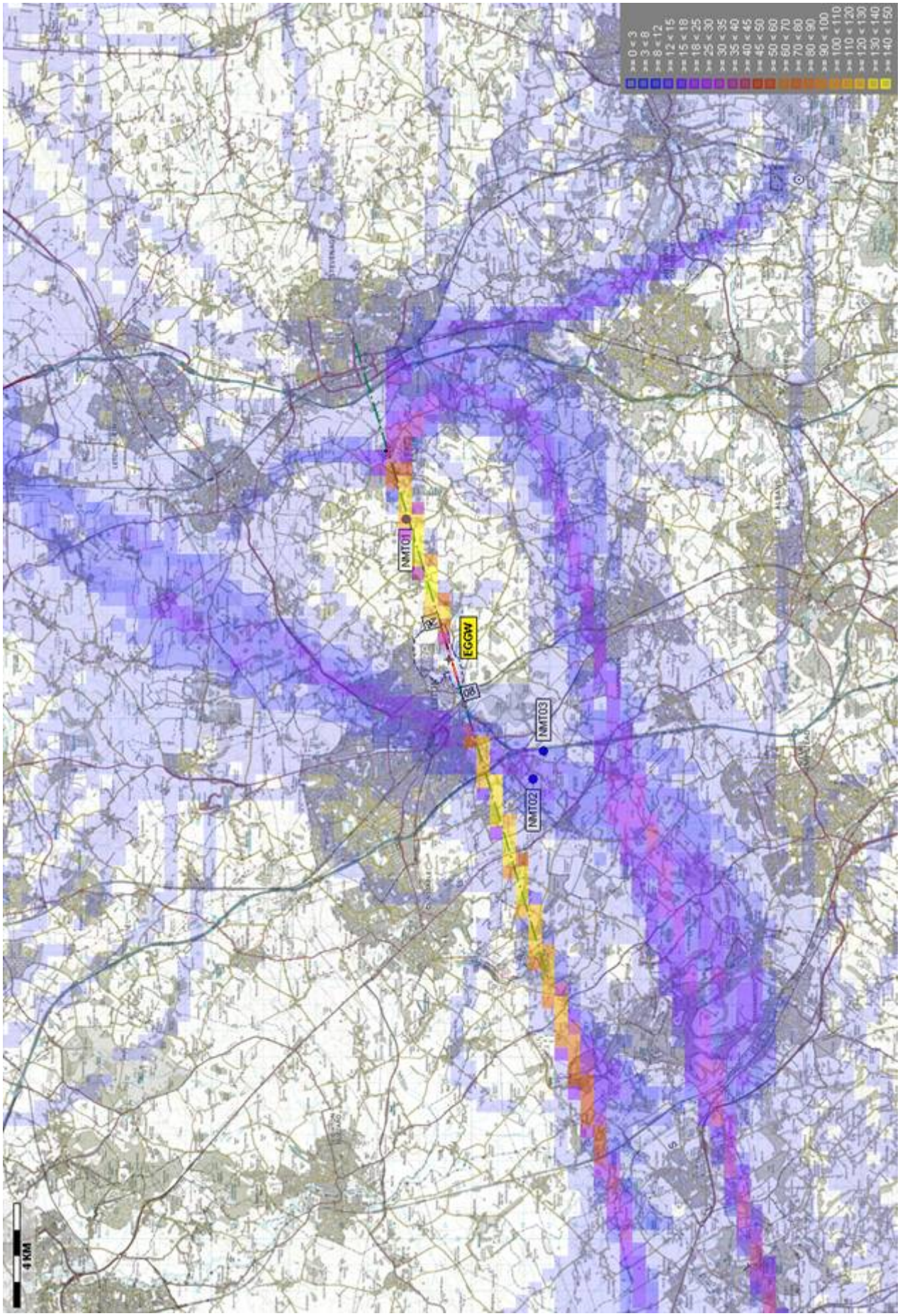
4.11 Flight Levels – Easterly (08) Flight Routes (24 hour period)



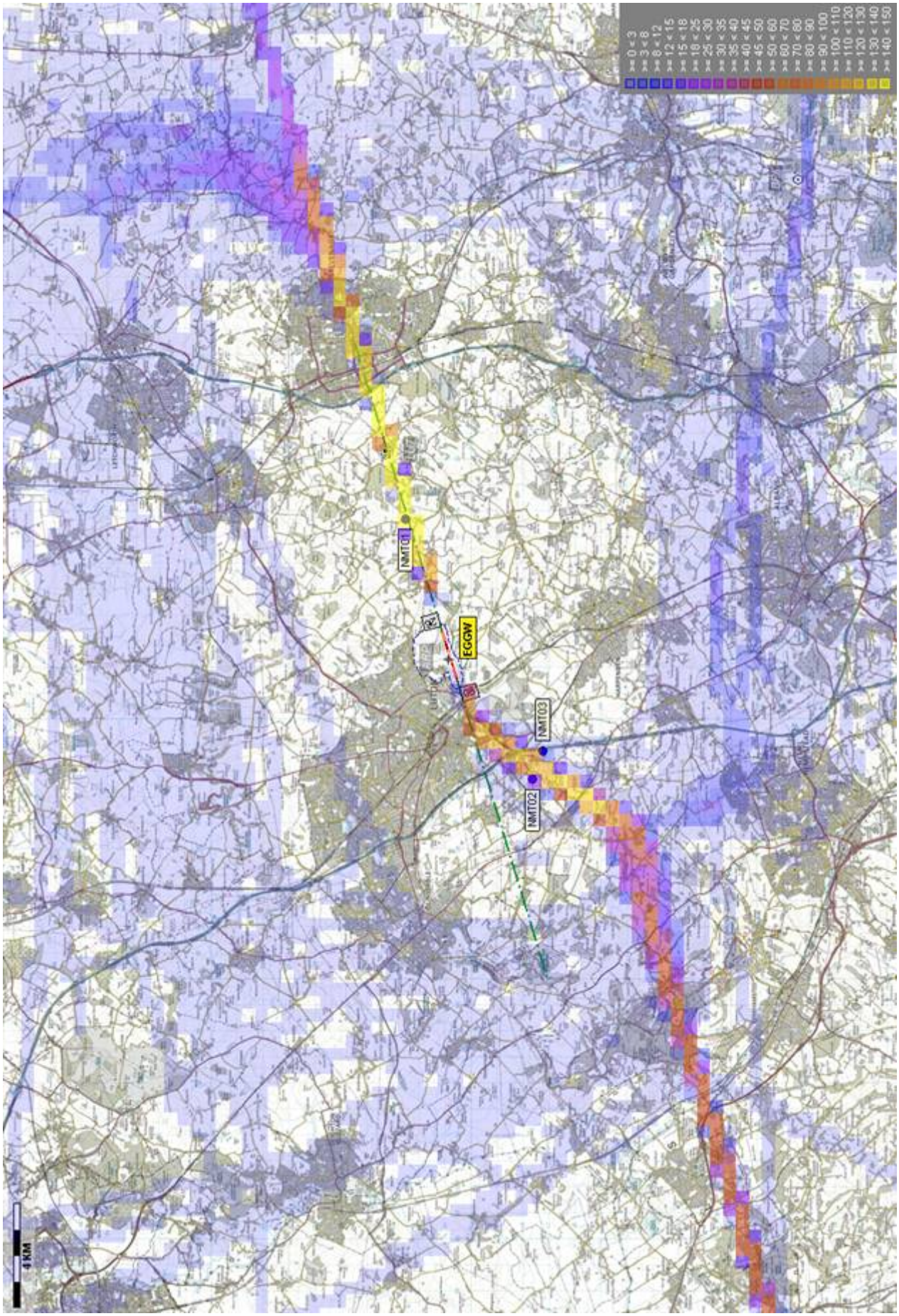
4.12 Flight Levels – Westerly (26) Flight Routes (24 hour period)



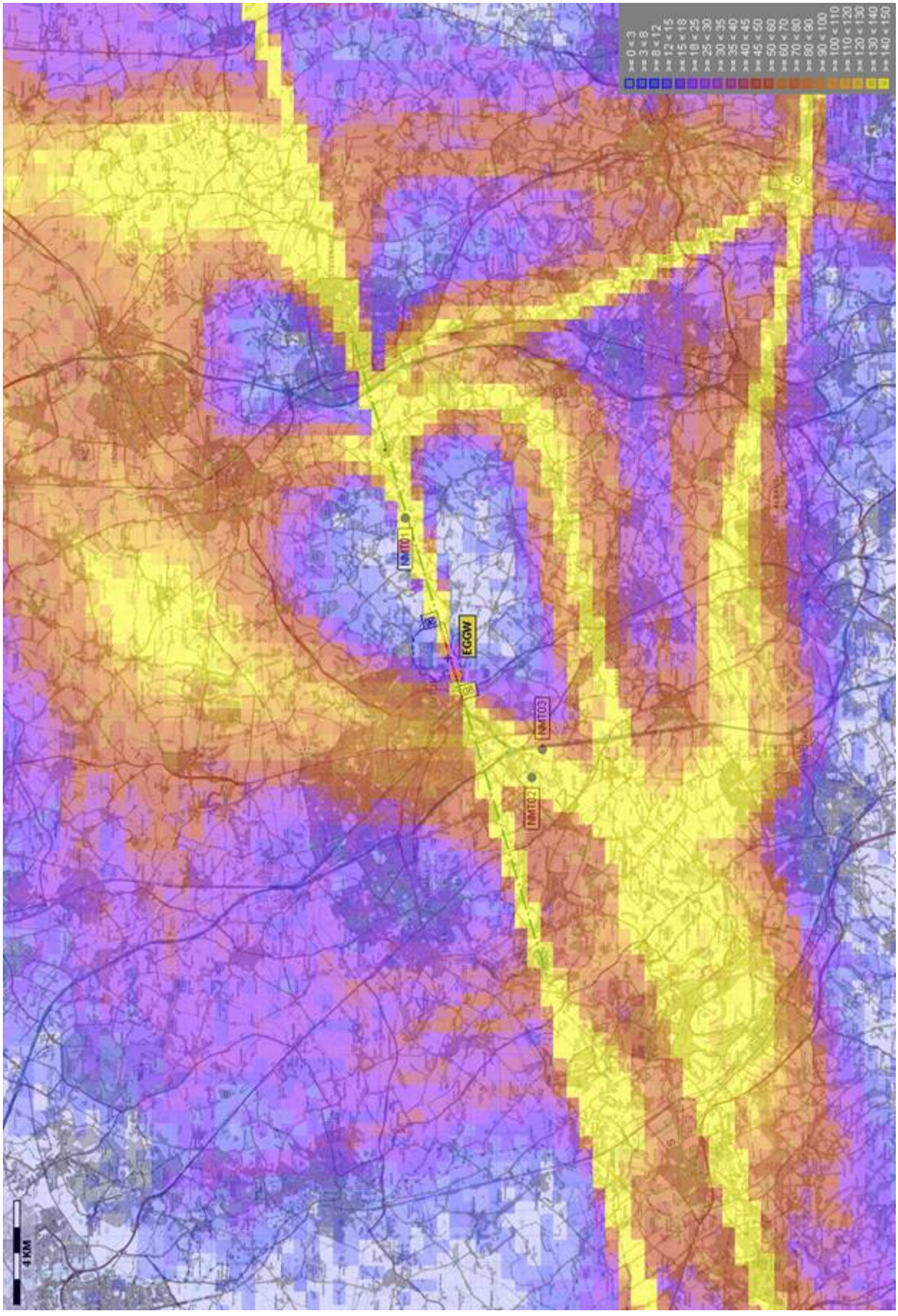
4.13 Plot Density – Easterly (08) Flight Routes (24 hour period)



4.14 Plot Density – Westerly (26) Flight Routes (24 hour period)



4.15 Plot Density – July 2005 (35% easterly and 65% westerly)



5. Noise Monitoring Data

The environmental impact of 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 policies of the Bedfordshire Structure Plan and the Borough of Luton Local Plan, so the issue of night flights and Night Jet Policy is monitored and reviewed by the LLACC on a quarterly basis.

The Leq contours for 2005 show a marginal increase in the day (16 hour) impact, in terms of area covered and the number of dwellings and people affected. The night (8-hour) impact also increased, in terms of the area, number of dwellings and people affected. However, the contours indicate that the noise impact is well below 1984 levels both during the day and night.

5.1. Departure Noise Levels

LLA use the ICAO standard for noise monitoring at airports. This covers all times of the day and night and all seasons, but it is standard practice that only departures are reported. Figures 4.6 and 4.7 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 (NPR's) so they will not be recorded.

Data shows an increase in the total number of departure noise events recorded in 2005 compared to 2004 (from 33,146 to 40,356). Due to system enhancements of the Topsonic Noise and Track Monitoring System there is now an additional noise band reporting all correlated events below 70dB(A). Only 1 departure exceeded the 87dB(A) night-time noise limit and there were no daytime noise violations during 2005.

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 80dB(A), with 59% of daytime departures registering below 74dB(A). Only 463 daytime departures registered maximum noise levels above 80dB(A) in 2005, compared with 2,009 aircraft in this noise band during 2004. In 2005 there were no daytime noise exceedences. Details of the noise penalties are listed in section 5.5.

The night period is taken as 23:00 – 06:00 local time, Monday to Saturday, and until 07:00 on a Sunday. There was an increase in the number of departures recorded at night in 2005 compared to 2004, from 1,611 to 1,817 with 98% of night departures registering maximum noise levels below 80dB(A) and 70% of night departures below 74dB(A). Only 1 departure exceeded the 87dB(A) night-time noise limit.

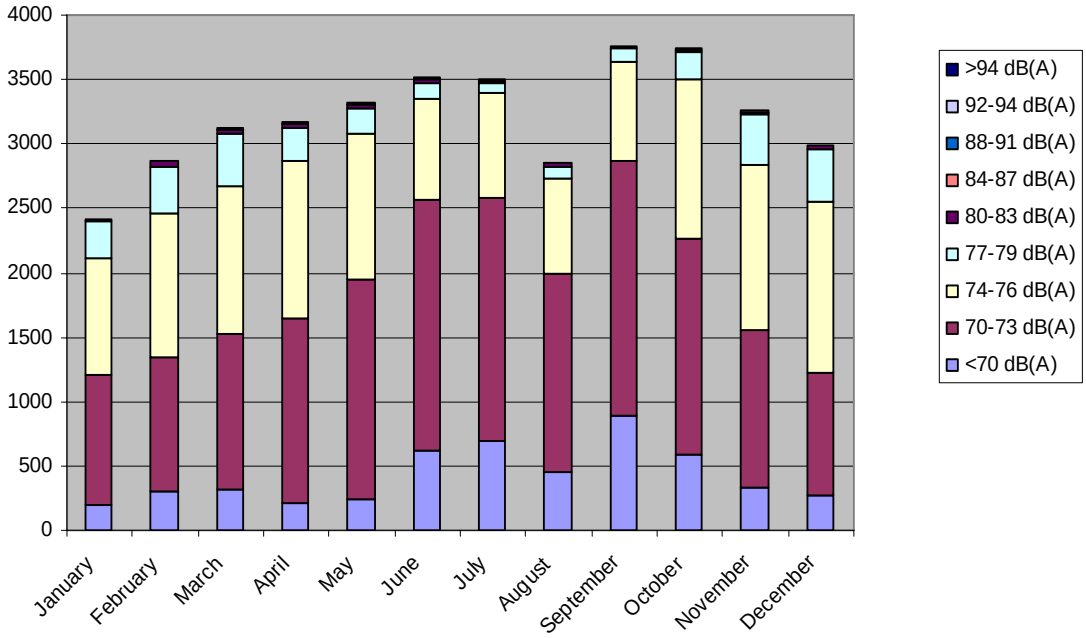
5.2. Noise and Track Monitoring System

The Topsonic Noise & Track Monitoring system has been operational for 100% of the time during 2005, and has been utilised in compiling the details within this report. New features and system enhancements continue to improve the functionality and capabilities available to the Airfield Environment Office.

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)

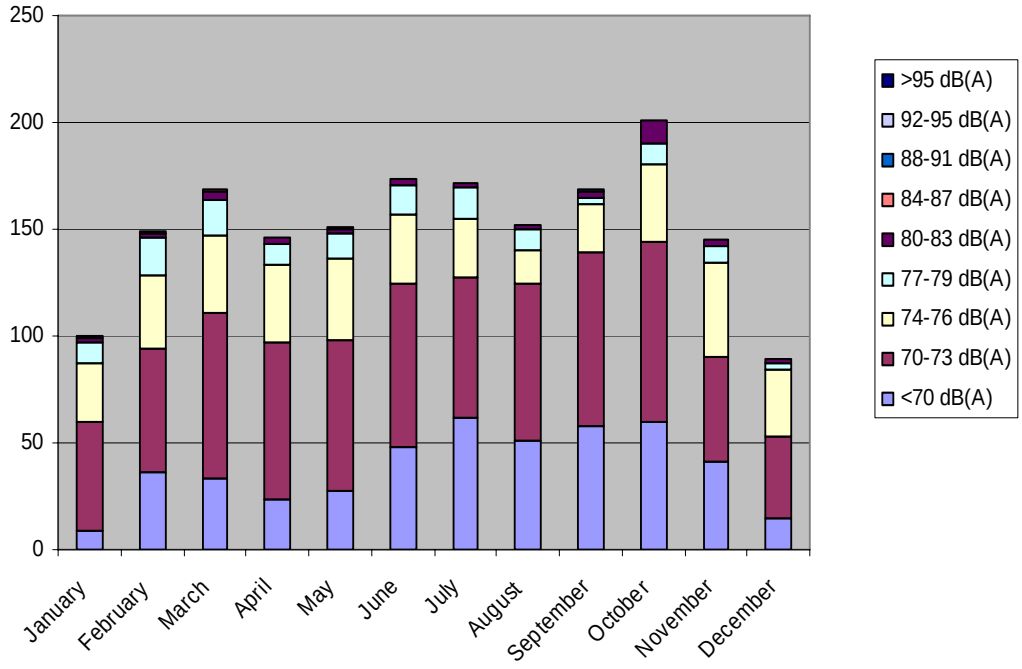
	Number of Departures (Daytime)									Total
	<70 dB(A)	70-73 dB(A)	74-76 dB(A)	77-79 dB(A)	80-83 dB(A)	84-87 dB(A)	88-91 dB(A)	92-94 dB(A)	>94 dB(A)	
January	202	1,006	908	279	19	4	1			**2,419**
February	298	1,039	1,118	371	35	7	1			**2,869**
March	320	1,198	1,151	409	33	6	4			**3,121**
April	215	1,430	1,220	255	37	13				**3,170**
May	249	1,705	1,124	196	37	14	3			**3,328**
June	615	1,958	782	119	33	11	2			**3,520**
July	698	1,880	812	76	24	7	3			**3,500**
August	459	1,539	731	92	25	8	1			**2,855**
September	894	1,967	771	106	13	11	3			**3,765**
October	587	1,681	1,227	213	27	5	2	1		**3,743**
November	339	1,210	1,282	393	26	9				**3,259**
December	272	953	1,326	401	30	6	2			**2,990**
Total	**5,148**	**17,566**	**12,452**	**2,910**	**339**	**101**	**22**	**1**	**0**	**38,539**



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 87dB(A) is fined accordingly)

	Number of Departures (Night)									Total
	<70 dB(A)	70-73 dB(A)	74-76 dB(A)	77-79 dB(A)	80-83 dB(A)	84-87 dB(A)	88-91 dB(A)	92-95 dB(A)	>95 dB(A)	
January	9	51	27	10	2	1				**100**
February	36	58	34	18	2	1				**149**
March	33	78	36	17	4	1				**169**
April	24	73	36	10	3					**146**
May	27	71	38	12	2	1				**151**
June	48	77	32	14	3					**174**
July	62	65	28	15	2					**172**
August	51	74	15	10	2					**152**
September	58	81	23	3	3		1			**169**
October	60	84	36	10	11					**201**
November	41	49	44	8	3					**145**
December	15	38	31	3	2					**89**
Total	**464**	**799**	**380**	**130**	**39**	**4**	**1**	**0**	**0**	**1,817**



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. These are the same noise levels used at the designated airports.

For Day Flights

06:00 – 22:59 Local Time (Monday to Saturday)
07:00 – 22:59 Local Time (Sunday)

Above 94 dB(A) 400% surcharge

For Night Flights

23:00 – 05:59 Local Time (Monday to Saturday)
23:00 – 06:59 Local Time (Sunday)

88 - 91 dB(A) 300% surcharge
92 - 95 dB(A) 500% surcharge
Above 95 dB(A) 600% surcharge

5.5.1. Daytime Noise Violations during 2005

There were no daytime noise violations in 2005, similar to 2004.

5.5.2. Night Noise Violations during 2005

There was 1 violation of the night noise limit in 2005 (details below), in line with 1 in 2004.

Date / Time (Local)	Aircraft Type	Noise Level	Penalty
5/9/2005 03:34	A300 Cargo	88dB(A)	300% of runway charge

6. *Noise Contours*

6.1 Leq

Since 1989 the preferred aircraft noise measure has been the A-weighted equivalent noise level, Leq. This metric averages total noise energy over a stated time period and thus takes account of all contributing aircraft movements. In the UK it is standard practice to average noise levels over a 16-hour daytime period (07:00-23:00 hours, local time) and a 92-day summer season (16th June – 15th September). Since 1999, the contours have been produced using INM.

The day Leq contours display the 57 to 72 levels in steps of 3 dB(A). The night contours display additional 48 to 72 levels in steps of 3 dB(A) to accord with Planning Policy Guidance Note 24: Planning and Noise.

Differences in noise impact reflect the changing shape of the contours which in turn partly reflects annual variations in departure/arrival and easterly/westerly runway usage splits (principally dictated by the wind direction).

The 2005 16-hour daytime Leq contours show a similar contour area for the higher Leq noise bands compared with 2004 i.e. 63-72 dB(A) and a small increase for the lower noise bands, 57-60 dB(A). The footprint has extended marginally further to the east and significantly further to the west along the easterly arrivals route due to the high number of easterly operations in 2005 compared with 2004. Despite a small increase in contour area from 12.83km² in 2004 to 13.46km² in 2005, the change in the shape of the contour has resulted in a -25% decrease in the number of dwellings affected with 1,095 total dwellings in 2005 compared with 1,462 in 2004. The total population affected also reduced by -30% from 3,772 to 2,631. The 2005 figures are significantly below those for the 1984 contours and also below the 1999 predicted contours which would require a noise reduction plan to be implemented if they are exceeded.

The 2005 8-hour night Leq contours show an increase in the area covered compared with 2004, from 20.82 km^2 to 26.59 km^2. There is a general increase in contour shape across the whole area with the easterly arrivals lobe to the west being extended due to a higher number of easterly operations. The increase in the contour footprint corresponds with an increase of 22% in the number of dwellings affected during the night period, from 2,653 in 2004 to 3,243 in 2005. There has also been a 12% increase in the number of people affected, from 6,732 to 7,508. The increase in contour area is attributable to an increase in movements during the two shoulder periods from, 23:00-00:00 and 06:00-07:00.

6.2 Annual Noise Contours Summer 2005

6.2.1. Work has been completed on the production of the annual noise contours for LLA for the summer 2005 covering the standard summer period from the 16th June to the 15th 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)

$L_{Aeq, 16\ hour}$ Day time	*1984 (km^2)*	*1999 (km^2)*	*2004 (km^2)*	2005 (km^2)	Difference 2004-2005 (km^2)
>72	*1.63*	*1.5*	*0.84*	0.84	0.0
>69	*2.80*	*2.5*	*1.35*	1.34	-0.01
>66	*4.86*	*4.4*	*2.35*	2.33	-0.02
>63	*9.1*	*7.3*	*4.25*	4.25	0.0
>60	*17.18*	*11.8*	*7.40*	7.68	+0.28
>57	***31.52***	***19.6***	***12.83***	**13.46**	**+0.63**

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)

$L_{Aeq, 8\ hour}$ Night time	*1984 (km^2)*	*1999 (km^2)*	*2004 (km^2)*	2005 (km^2)	Difference 2004-2005 (km^2)
>72	*0.79*	*1.1*	*0.33*	0.39	+0.06
>69	*1.39*	*1.8*	*0.49*	0.57	+0.08
>66	*2.42*	*3.0*	*0.73*	0.87	+0.14
>63	*4.01*	*5.2*	*1.18*	1.44	+0.26
>60	*7.06*	*8.3*	*2.02*	2.54	+0.52
>57	*13.05*	*13.2*	*3.66*	4.69	+1.03
>54	*24.48*	*21.6*	*6.66*	8.60	+1.94
>51	*44.92*	*36.0*	*11.86*	15.34	+3.48
>48	***85.04***	***60.6***	***20.82***	**26.59**	**+5.77**

6.2.4. The modal split for summer 2005 was 67% westerly / 33% easterly compared with 79% / 21% W/E in summer 2004.

6.2.5. In terms of movements, there was an increase in the total daytime movements from 22,006 to 24,842 and an increase in night-time movements from 2,897 to 3,599 (over the 92 day contour period).

6.3 Contour Population Counts

The population counts were carried out by URS Corporation Ltd. on noise contours provided by LLAOL. In addition to this data, the following information has been utilised:

i) Ordnance Survey Address-Point 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. URS utilised ESRI ArcGIS to undertake the analysis.

6.3.1. Procedure

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

i) A count of Address Point data was made for each census output area in the study area.
ii) A similar count was made for those address points lying within each noise contour boundary.
iii) The count in (ii) was divided by (i) to provide the proportion of households within each census area lying within each noise contour.
iv) The factors in (iii) were multiplied by the census output area data for households and resident population.
v) 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.
vi) The results of the counts have been validated by Luton Borough Council and Hertfordshire County Council.

6.4 Day-Time Contour Results

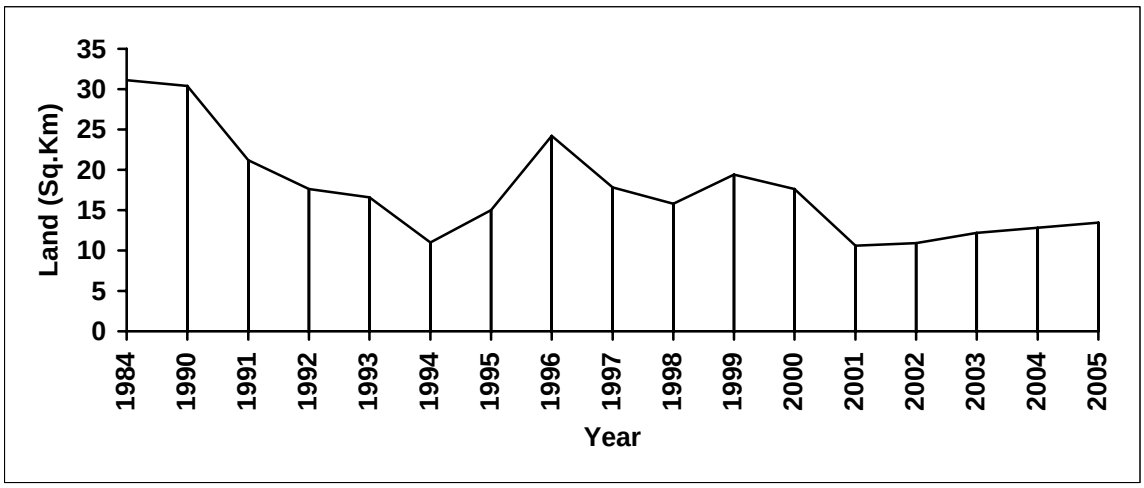
$L_{Aeq, 16\ hour}$ **Day time**	***2004 Dwellings***	***2004 Population***	**2005 Dwellings**	**2005 Population**
>72	*0*	*0*	0	0
>69	*0*	*0*	0	0
>66	*5*	*12*	4	10
>63	*34*	*84*	22	53
>60	*538*	*1,392*	450	1,074
>57	***1,462***	***3,772***	**1,095**	**2,631**

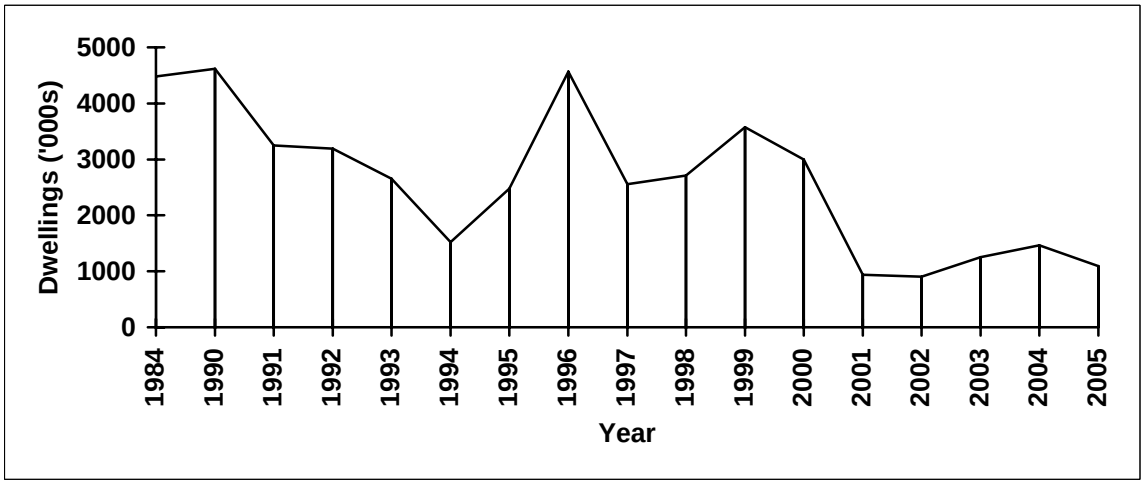
6.5 Night-Time Contour Results

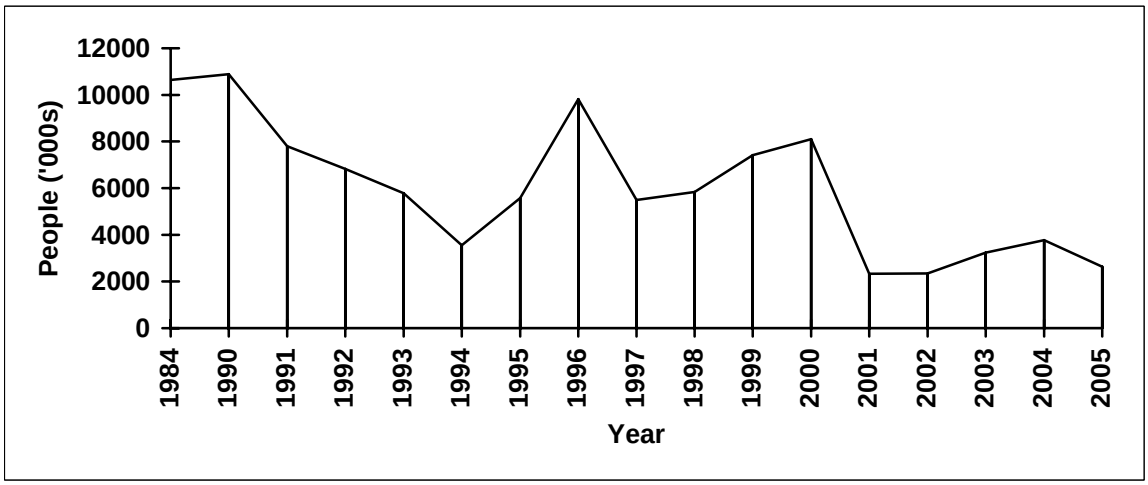
$L_{Aeq, 8hour}$ **Night time**	***2004 Dwellings***	***2004 Population***	**2005 Dwellings**	**2005 Population**
>72	*0*	*0*	0	0
>69	*0*	*0*	0	0
>66	*0*	*0*	0	0
>63	*0*	*0*	0	0
>60	*2*	*5*	5	12
>57	*29*	*72*	130	315
>54	*376*	*973*	586	1,408
>51	*1,031*	*2,665*	1,223	2,935
>48	***2,653***	***6,732***	**3,243**	**7,508**

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.

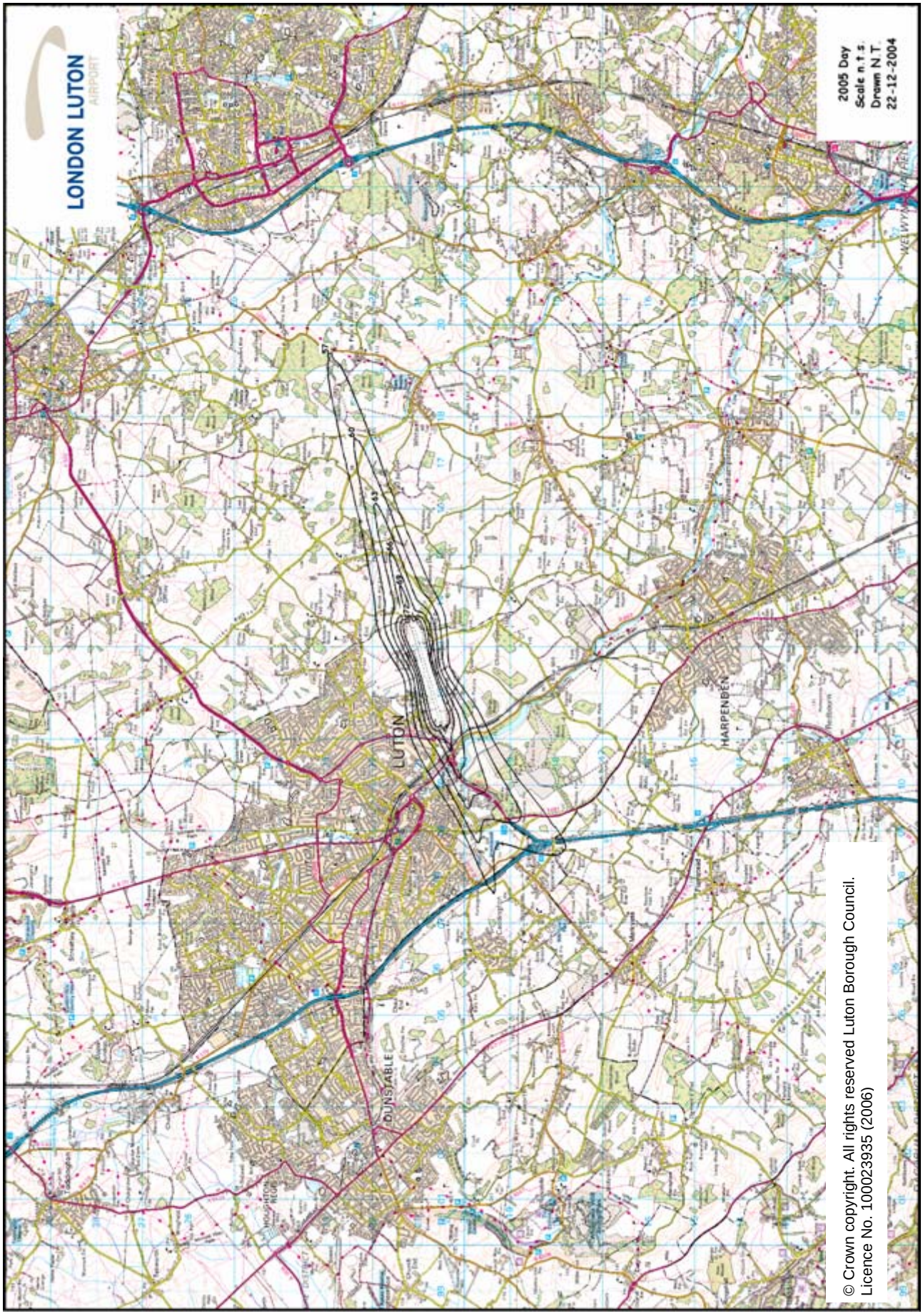
6.6 Noise Impact Within 16-Hour (Day) Leq Contours



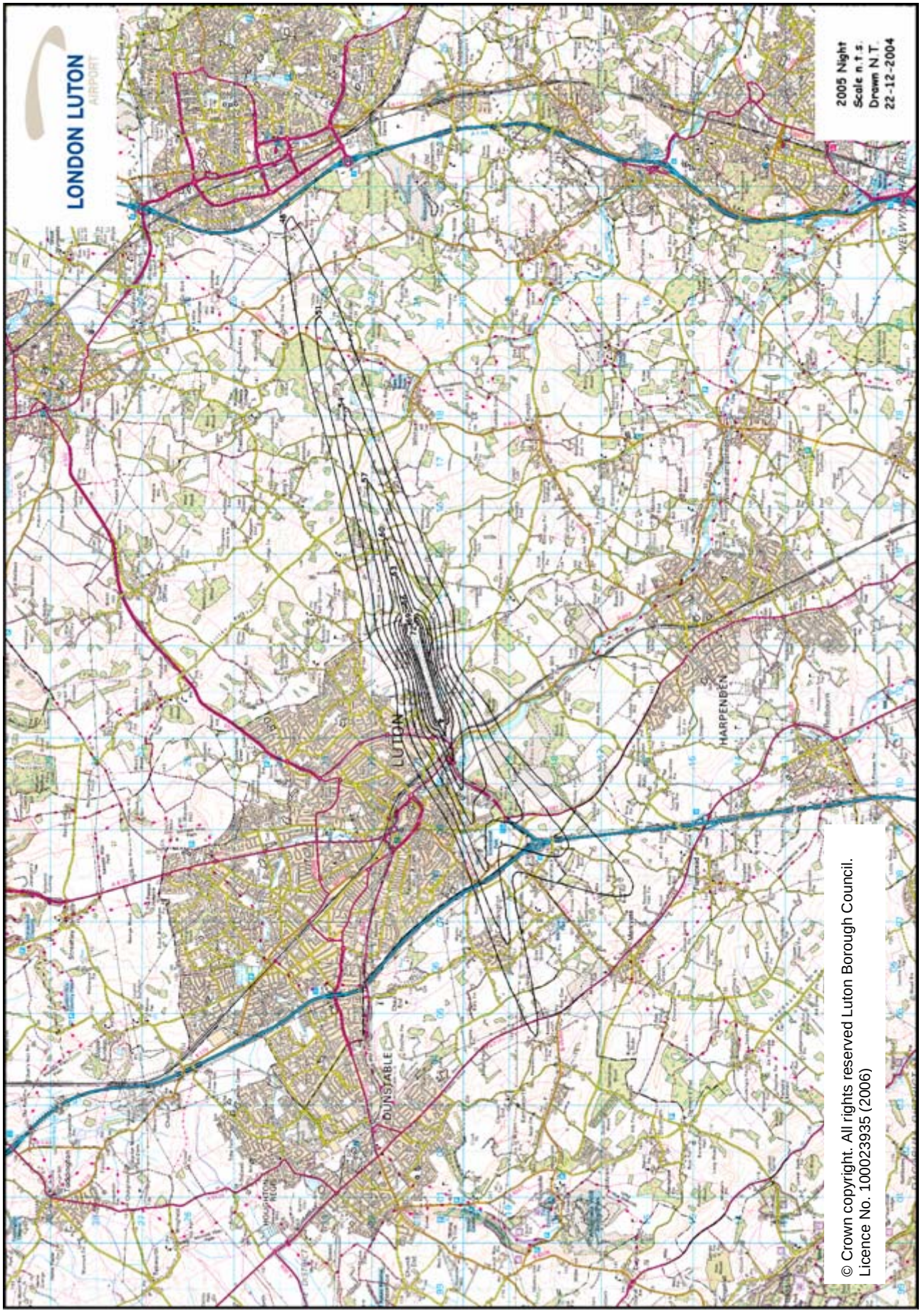




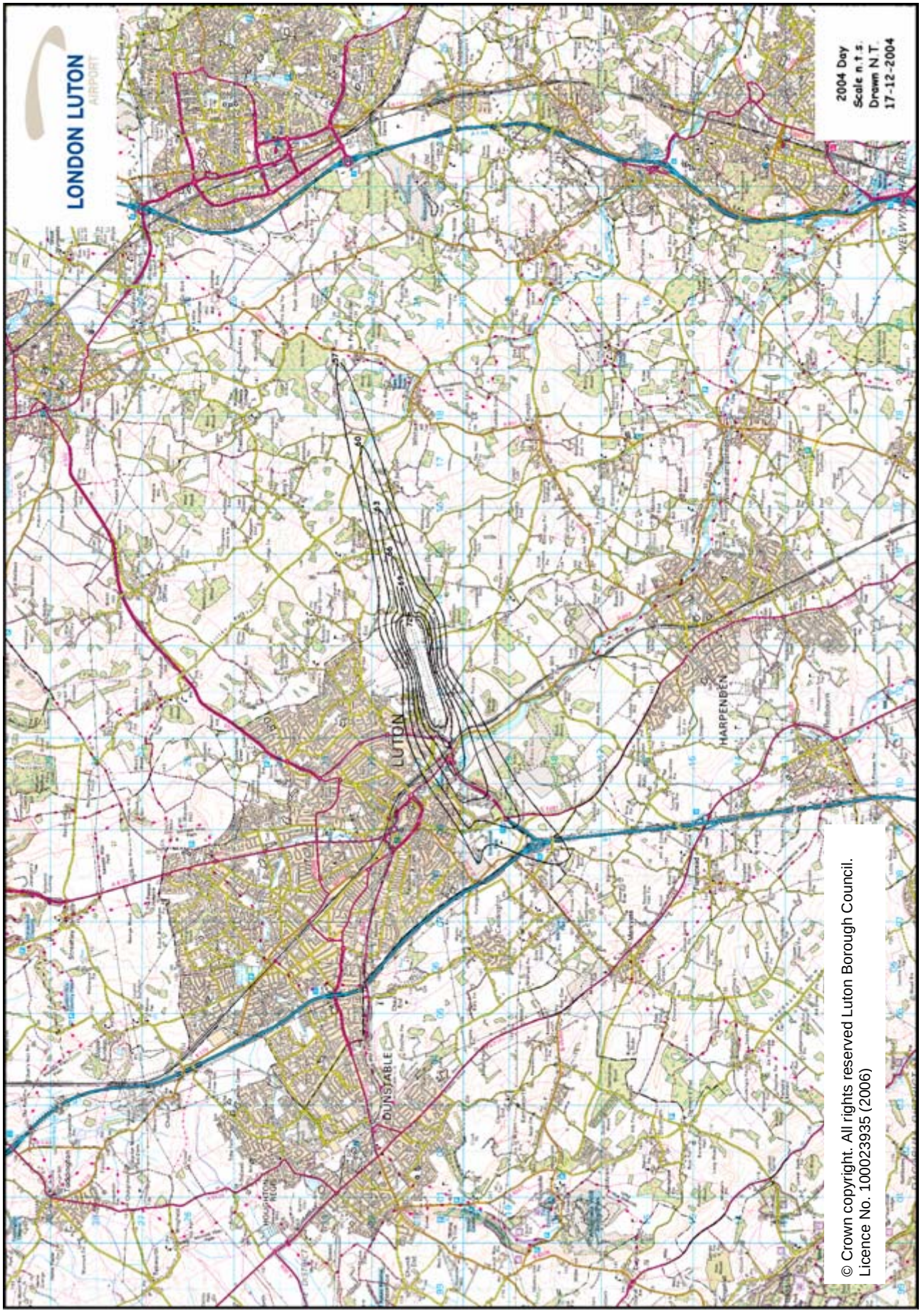
6.7 Annual Day Noise Contours 2005



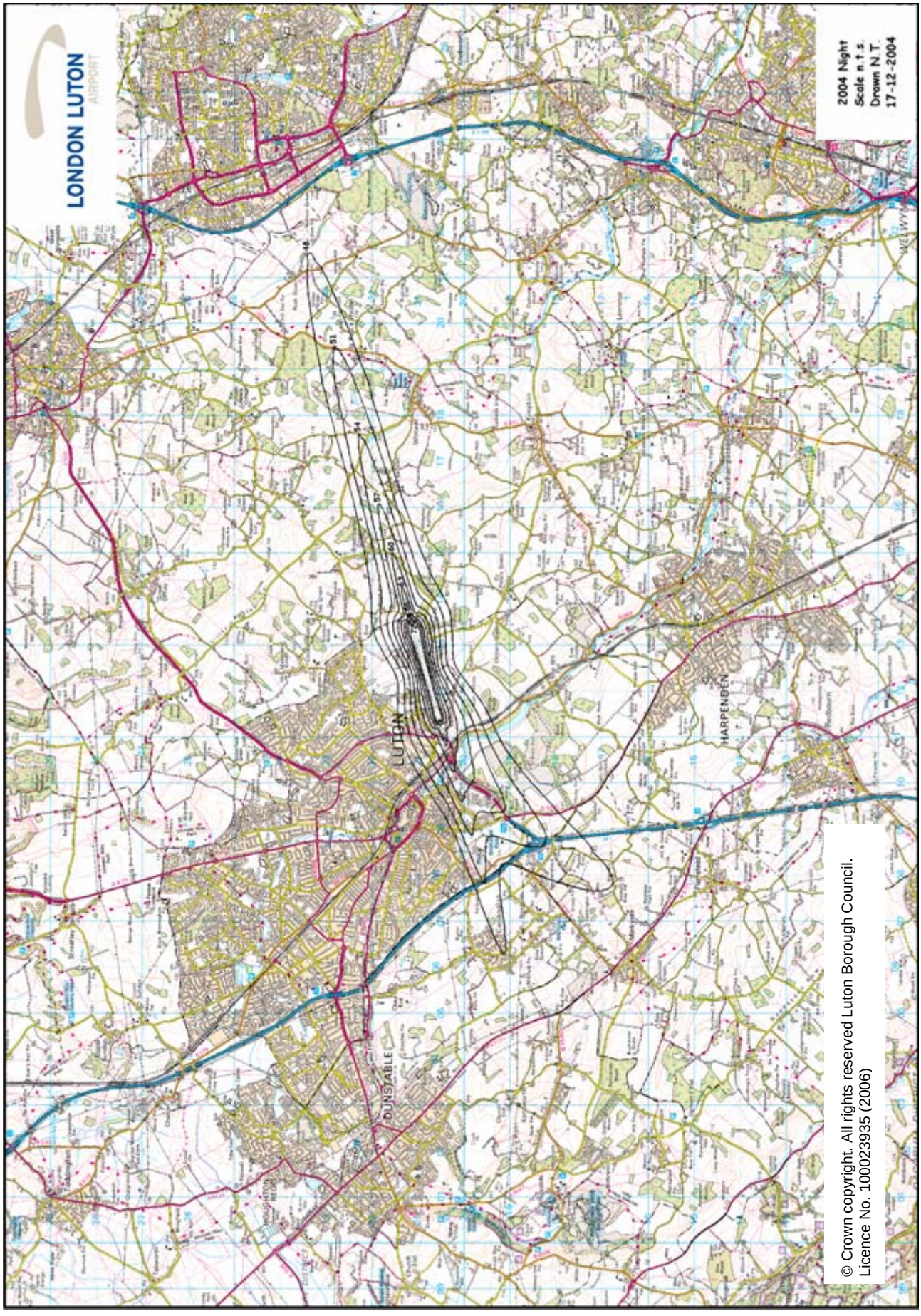
6.8 Annual Night Noise Contours 2005



6.9 Annual Day Noise Contours 2004



6.10 Annual Night Noise Contours 2004



6.11 Quarterly Night Noise Contours

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

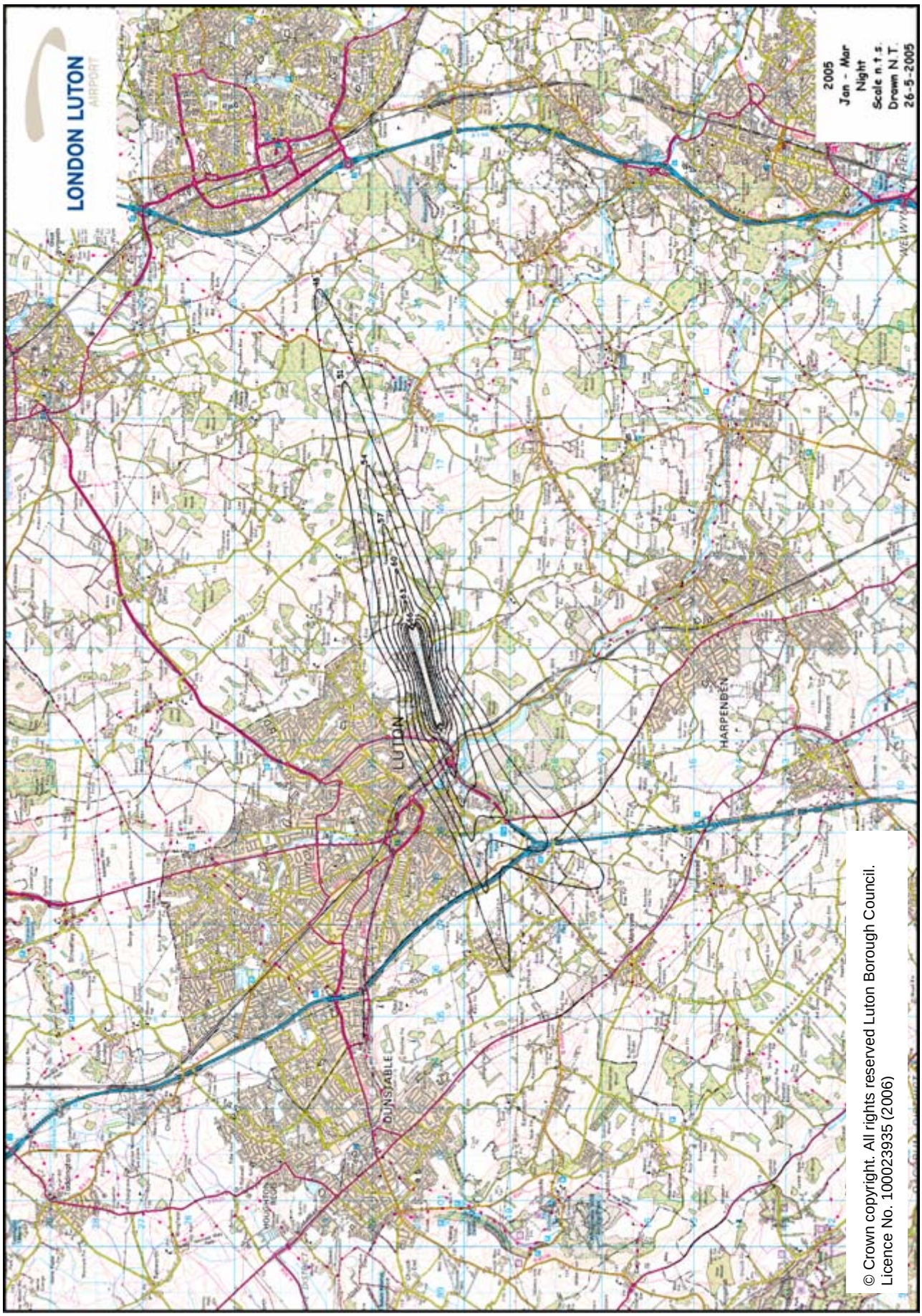
6.12 Night Noise Contour Results (km²)

L_{Aeq}, 8hr Night	Jan - Mar 2004	Jan – Mar 2005	Apr – Jun 2004	Apr – Jun 2005	Jul – Sep 2004	Jul – Sep 2005	Oct - Dec 2004	Oct - Dec 2005
>72	0.32	0.34	0.30	0.40	0.36	0.39	0.32	0.32
>69	0.48	0.50	0.45	0.59	0.53	0.57	0.48	0.49
>66	0.70	0.74	0.68	0.88	0.80	0.87	0.71	0.73
>63	1.09	1.17	1.07	1.43	1.29	1.45	1.10	1.17
>60	1.82	1.98	1.82	2.49	2.22	2.57	1.84	2.02
>57	3.29	3.57	3.28	4.57	3.98	4.73	3.30	3.68
>54	6.06	6.52	6.03	8.35	7.15	8.65	5.97	6.76
>51	10.87	11.64	10.85	14.81	12.55	15.30	10.55	12.11
>48	**19.19**	**20.36**	**19.23**	**25.74**	**21.92**	**26.64**	**18.44**	**21.05**
W/E Split (%)	*72/28*	*65/35*	*70/30*	*70/30*	*76/24*	*70/30*	*71/29*	*75/25*

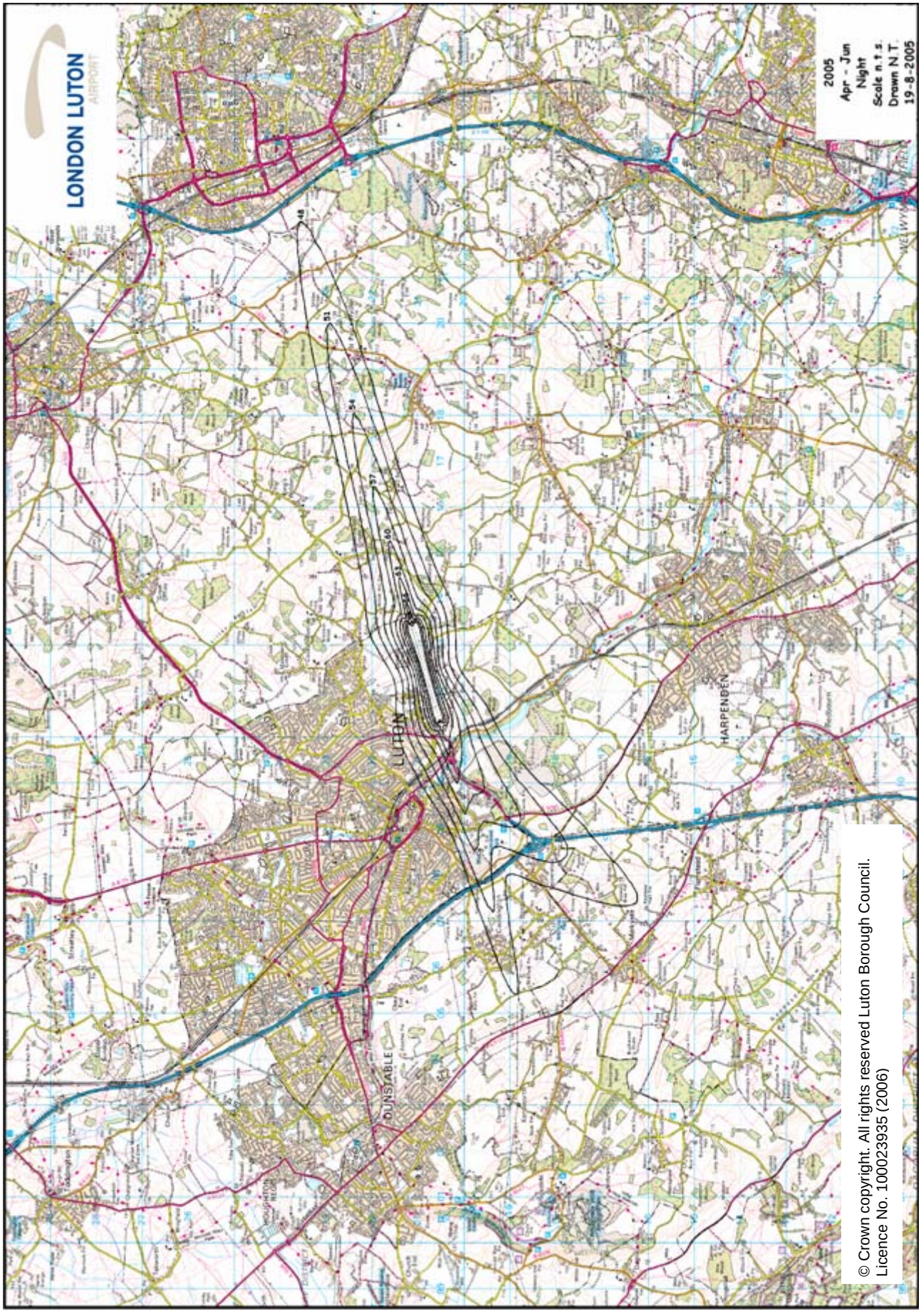
6.13 Night Noise Movements by INM Aircraft Type

Aircraft Type	Jan – Mar 2004	Jan – Mar 2005	Apr - Jun 2004	Apr – Jun 2005	Jul – Sep 2004	Jul – Sep 2005	Oct - Dec 2004	Oct - Dec 2005
727100	3	3	2	3	4	3	6	0
727200	0	0	2	2	3	0	2	1
737300	253	318	420	328	455	524	467	271
737400	4	1	2	2	2	1	0	1
737700	914	519	650	759	680	659	463	460
737800	16	442	17	569	27	582	35	556
737200	4	0	7	3	6	2	11	1
757RR	151	228	376	424	561	482	334	355
A300	168	56	121	92	108	119	63	52
A320	37	72	98	91	135	179	137	94
A321	4	10	38	26	51	21	22	9
A319	104	24	95	7	101	12	70	18
BAE146	2	3	8	5	0	0	3	2
767300	6	11	8	11	17	15	17	11
767JT9	5	2	13	3	2	62	10	30
CL600	72	69	123	119	113	111	81	100
CVR580	57	101	74	131	116	120	76	2
LEAR35	137	105	126	175	114	173	127	111
SD330	66	126	61	114	64	119	117	55
Other	*322*	*273*	*266*	*410*	*302*	*377*	*339*	*492*
Total	**2325**	**2363**	**2507**	**3274**	**2861**	**3561**	**2380**	**2621**

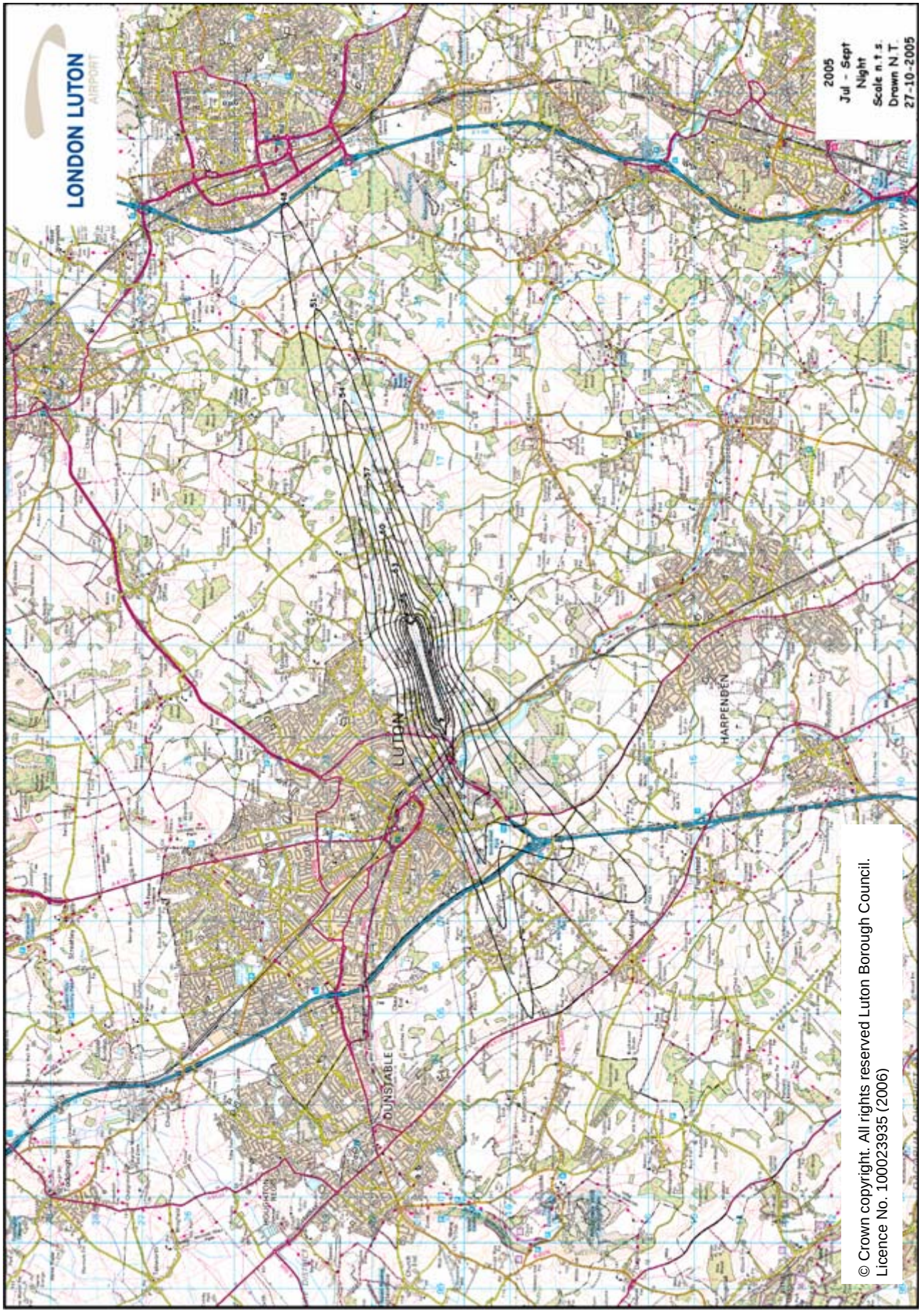
6.14 Quarterly Night Noise Contours 2005 Jan – Mar



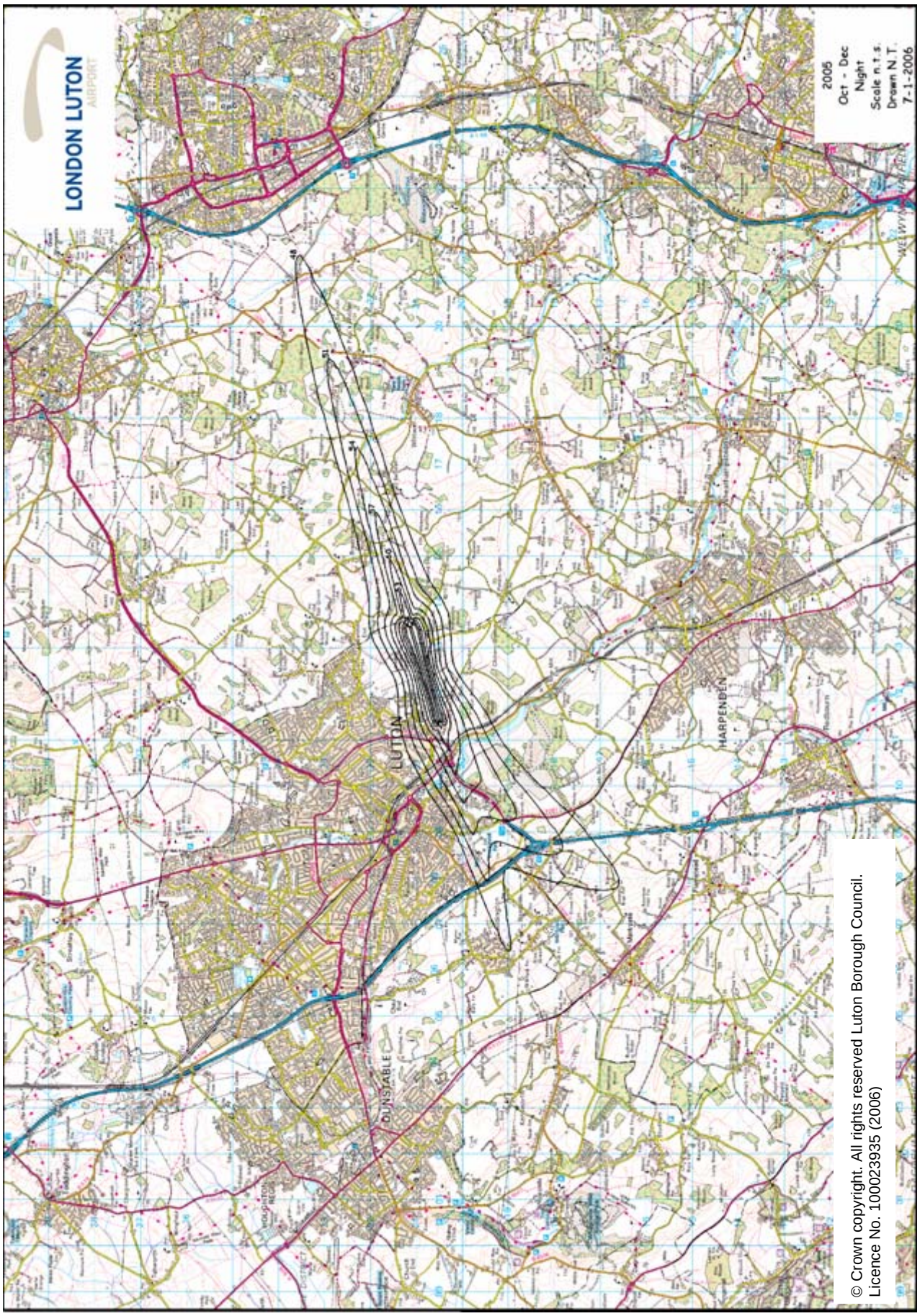
6.15 Quarterly Night Noise Contours 2005 Apr – Jun



6.16 Quarterly Night Noise Contours 2005 Jul – Sep



6.17 Quarterly Night Noise Contours 2005 Oct – Dec



7. *Complaints*

7.1 Total Complaints relating to LLA aircraft operations

	2004	2005
Total No. of Complaints relating to LLA aircraft operations	534	718
No. of Complainants	278	364
No. of Events (eliciting a complaint)	1,219 *(610*)*	1,373 (*682***)
Average No. of Complaints per Complainant	1.9	2
Average No. of Events per Complainant	4.4 *(2.2*)*	3.8 (*1.9***)
Average No. of Events per Complaint	2.3 (*1.1**)	1.9 (*0.9*****)
No. of Aircraft Movements per Complaint	177	150
No. of Aircraft Movements per Event	77 *(155*)*	79 (*158***)

* *Figures excluding 609 events, reported by 2 individuals in the Flamstead and Hemel Hempstead areas.*
** *Figures excluding 691 events, reported by 2 individuals in the Hemel Hempstead and Tring areas.*

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

7.1.1. During 2005 a total of 718 complaints relating to LLA aircraft operations were received by the Airfield Environment Office, compared with 534 in 2004.

7.1.2. A further 93 complaints not attributable to LLA traffic were received throughout 2005, compared with 56 last year

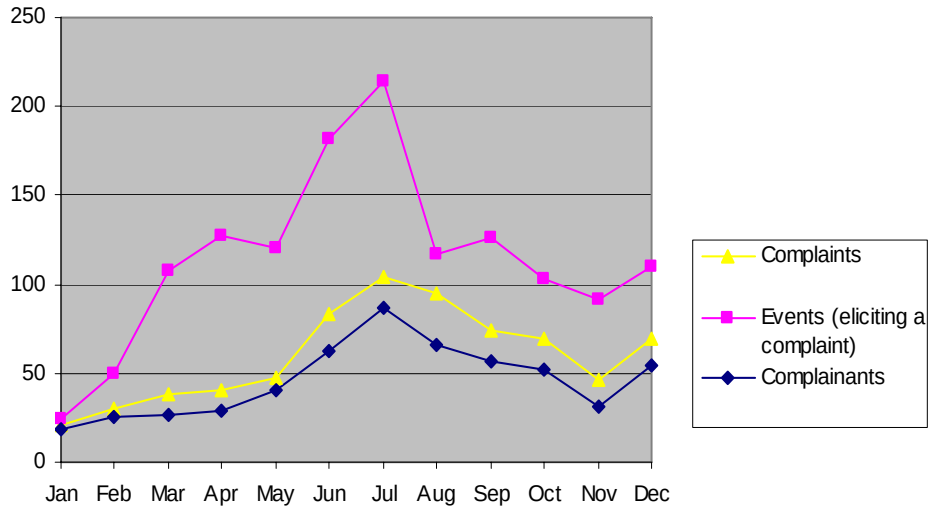
7.1.3. A total of 364 complainants reported concerns to the Airfield Environment Office during the year, in comparison with 278 in 2004.

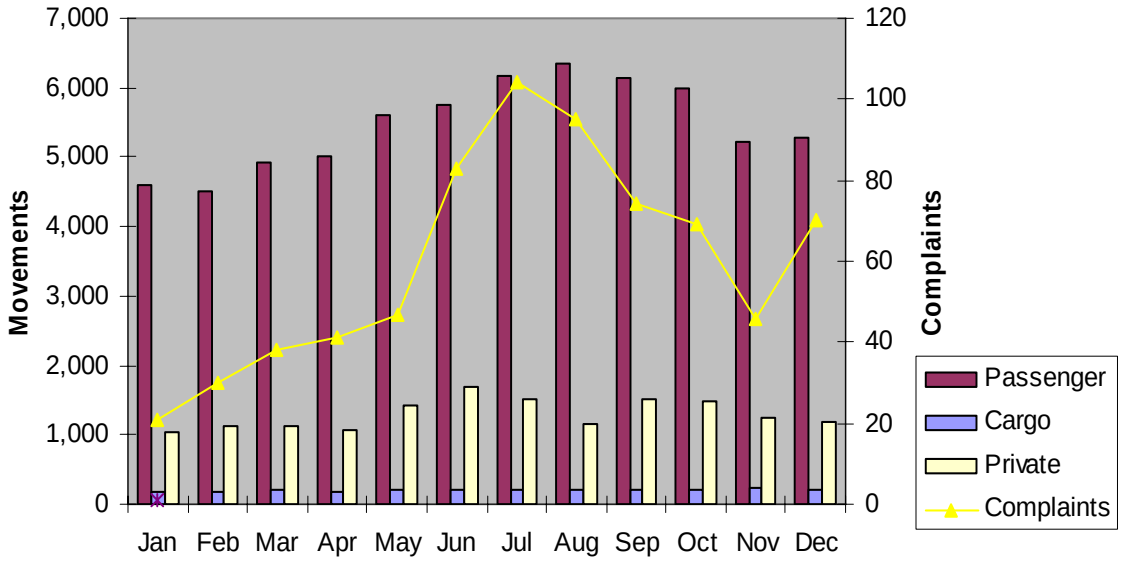
7.1.4. Within the 718 complaints received during the year, a total of 1,373 events (eliciting a complaint) were listed, compared to 1,219 events in 2004 although it should be noted that 50% of reported events in 2005 (691) were received from just 2 individuals, one in Hemel Hempstead (412) and one in Tring (279).

7.2 Monthly complaint statistics

	Complaints	Events (eliciting a complaint)	Complainants
Jan	21	24	18
Feb	30	50	25
Mar	38	108	27
Apr	41	127	29
May	47	120	40
Jun	83	182	63
Jul	104	214	87
Aug	95	117	66
Sep	74	126	57
Oct	69	103	52
Nov	46	92	31
Dec	70	110	54
Totals	**718**	**1373**	**364***

* 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	410	129	56	**595**
Frequency	96	14	22	**132**
Low-Flying	108	16	3	**127**
Off Track	112	10	4	**126**
Safety	13	-	-	**13**

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	235	33%
Arrivals - Easterly	129	18%
Frequency/Gen. Disturbance	125	17%
Deparatures - Easterly	119	16%
Arrivals - Westerly	33	5%
Engine Ground Runs	18	3%
Go-arounds	16	2%
Helicopter-Police	11	2%
Helicopter-Private	10	1.5%
Ground Noise	9	1.5%
Alleged Air Prox*	8	1%
Light Aircraft	3	1%
Training Flights	2	1%
Total	**718**	**100%**

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

7.4.1. A total of 191 reported complaints involving night operations accounted for 27% of all complaints received in 2005 (in comparison with 25% in 2004).

7.4.2. Within the 235 complaints concerning westerly departures 135 were of a general nature, 65 on the Dover/Detling/Clacton route, 20 related to specific aircraft on the Olney 1B route and 15 on the Compton route.

7.4.3. Whilst 80 of the 129 complaints concerning easterly arrivals reported general disturbance, 49 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 83% of complaints and in 20% of complaints the **frequency** of operations was reported. Concerns of aircraft flying **low** were reported in 19% of complaints, and 17% of complaints involved aircraft being perceived as **off-track**. 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 718 complaints relating to LLA aircraft operations registered during the year 343 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
A300 (MNG Cargo & DHL)	55	8%	540	10
B727 Private Jets†	50	7%	113	2
GLF2/GLF3 Private Jets	37	5%	368	10
B757/B767 (Britannia)	32	4%	5,582	174
B737-300 (easyJet)	25	3%	19,154	766
A320 (Monarch & Wizzair)	24	3%	6,735	281
Helicopter	21	3%	3,927	187
B737-700 (easyJet)	20	3%	24,273	1214
B757 (DHL Cargo)	11	2%	480	44
B737-800 (Ryanair)	9	1%	12,058	1340
Light Aircraft	2	0.3%	2,664	1332
Military Operations	1	0.1%	24	24
Other Private Aircraft	*31*	4%	16,722	539
Other Cargo Operations	*9*	1%	2,642	294
Other Passenger Operations	*16*	2%	9,203	575
Total	**343**	**48%**	**107,894**	**315****

* Operators in brackets refer to the predominant operator of aircraft type.

** This is the total number of aircraft movements per correlated complaint
i.e. 107,894 movements / 343 correlated complaints = 315

† Of these 50 correlated complaints, 29 related to just 2 daytime B727 departures.

7.7 Origin of Complaints

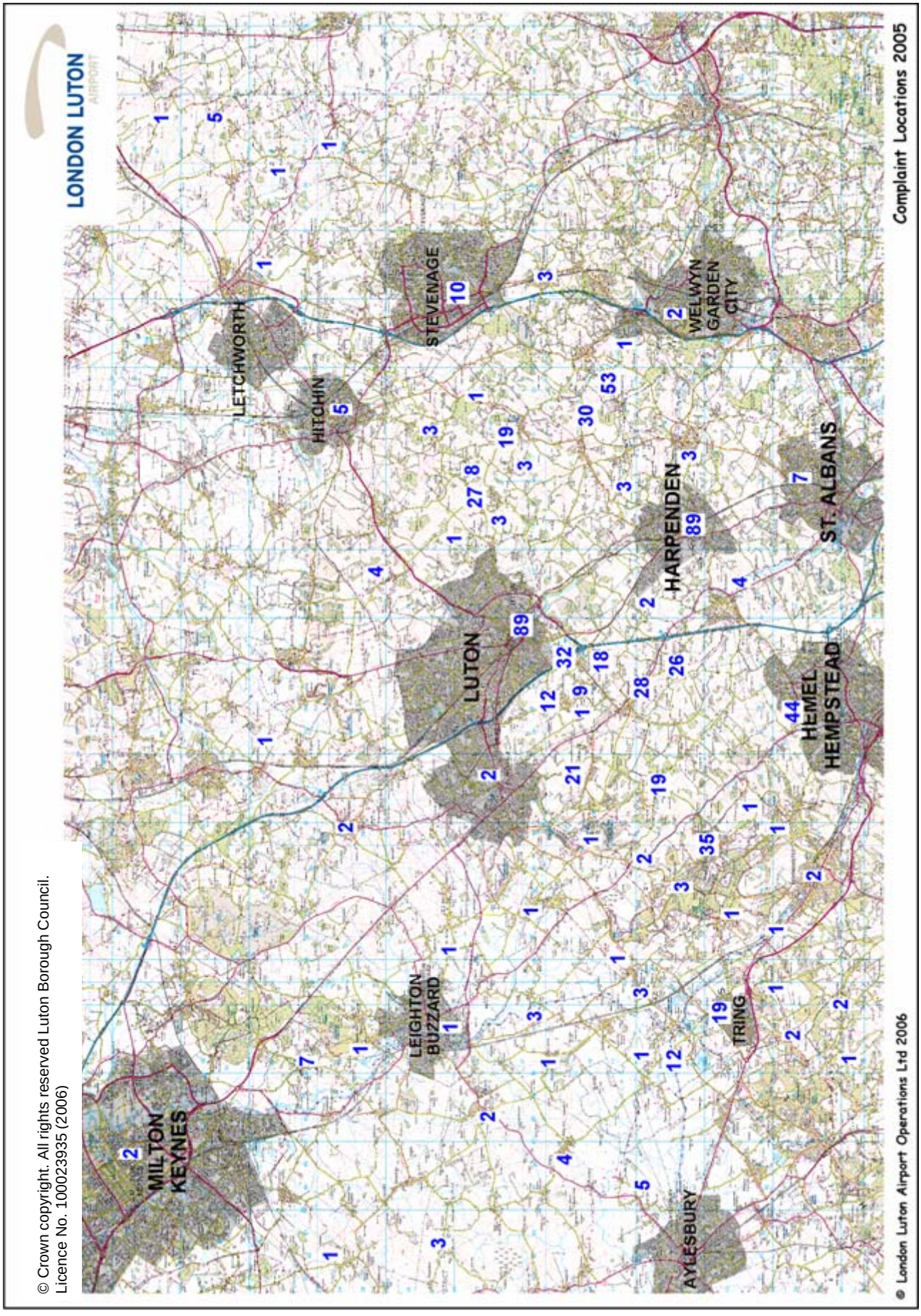
The chart below identifies the areas around the Airport from which complaints were received.

Location	Complaints	Events* (eliciting a complaint)	Complainants	*Average complaints per complainant*	*Average Events per Complainant*	Location	Complaints	Events* (eliciting a complaint)	Complainants	*Average complaints per complainant*	*Average Events per Complainant*
Aldbury	1	1	1	*1.0*	*1.0*	Long Marston	1	1	1	*1.0*	*1.0*
Aley Green	1	0	1	*1.0*	*0.0*	Luton	89	66	59	*1.5*	*1.1*
Ayot St Lawrence	53	26	5	*11.0*	*5.2*	Markyate	28	32	14	*2.0*	*2.3*
Baldock	1	0	1	*1.0*	*0.0*	Mentmore	1	2	1	*1.0*	*2.0*
Bendish	3	2	3	*1.0*	*0.7*	Milton Keynes	2	4	1	*2.0*	*4.0*
Berkhamsted	2	0	2	*1.0*	*0.0*	Mursley	1	1	1	*1.0*	*1.0*
Bierton	5	21	1	*5.0*	*21.0*	Nettleden	1	0	1	*1.0*	*0.0*
Blackmore End	3	0	3	*1.0*	*0.0*	Pepperstock	18	16	8	*2.2*	*2.0*
Breachwood Green	27	34	16	*1.7*	*2.1*	Pitstone	3	1	3	*1.0*	*0.3*
Buntingford	1	0	1	*1.0*	*0.0*	Preston	3	2	1	*3.0*	*2.0*
Caddington	12	13	10	*1.2*	*1.3*	Princes Risborough	1	0	1	*1.0*	*0.0*
Cholesbury	2	0	2	*1.0*	*0.0*	Redbourn	4	3	4	*1.0*	*0.8*
Cockernhoe	1	1	1	*1.0*	*1.0*	Ringshall	3	2	2	*1.5*	*1.0*
Cottered	1	1	1	*1.0*	*1.0*	Royston	1	0	1	*1.0*	*0.0*
Dagnall	2	0	1	*2.0*	*0.0*	Rushden	1	1	1	*1.0*	*1.0*
Darleyhall	3	0	3	*1.0*	*0.0*	Sandon	5	7	3	*1.7*	*2.3*
Dudswell	1	0	1	*1.0*	*0.0*	Slapton	3	4	1	*3.0*	*4.0*
Dunstable	2	1	2	*1.0*	*0.5*	Slip End	32	36	12	*2.7*	*3.0*
Dunton	3	3	1	*3.0*	*3.0*	St Albans	7	8	3	*2.3*	*2.7*
Eaton Bray	1	1	1	*1.0*	*1.0*	St Leonards	1	1	1	*1.0*	*1.0*
Flamstead	26	32	13	*2.0*	*2.5*	St Paul's Walden	1	0	1	*1.0*	*0.0*
Frithsden	1	0	1	*1.0*	*0.0*	Stanbridge	1	0	1	*1.0*	*0.0*
Great Brickhill	7	30	5	*1.4*	*6.0*	Stevenage	10	10	9	*1.1*	*1.1*
Gubblecote	12	6	2	*6.0*	*3.0*	Studham	19	52	7	*2.7*	*7.4*
Harpenden	89	69	40	*2.2*	*1.7*	Toddington	2	0	1	*2.0*	*0.0*
Hastoe	2	2	1	*2.0*	*2.0*	Tring	19	304	11	*1.7*	*2.8*
Heath & Reach	1	2	1	*1.0*	*2.0*	Welwyn	1	0	1	*1.0*	*0.0*
Hemel Hempstead	44	413	3	*15.0*	*138.0*	Welwyn Garden City	2	1	1	*2.0*	*1.0*
Hitchin	5	2	4	*1.2*	*0.5*	Westoning	1	0	1	*1.0*	*0.0*
Ivinghoe	1	1	1	*1.0*	*1.0*	Wheathampstead	3	1	3	*1.0*	*0.3*
Kelshall	1	2	1	*1.0*	*2.0*	Whipsnade	1	0	1	*1.0*	*0.0*
Kensworth	21	17	13	*1.6*	*1.3*	Whitwell	19	42	11	*1.7*	*3.8*
Kimpton	30	18	17	*1.8*	*1.0*	Wigginton	1	1	1	*1.0*	*1.0*
King's Walden	8	8	2	*4.0*	*4.0*	Wing	2	1	2	*1.0*	*0.5*
Kinsbourne Green	2	1	2	*1.0*	*0.5*	Wingrave	4	5	3	*1.3*	*1.7*
Knebworth	3	1	3	*1.0*	*0.3*	Woodside	9	11	7	*1.3*	*1.6*
Leighton Buzzard	1	0	1	*1.0*	*0.0*						
Lilley	4	0	4	*1.0*	*0.0*	**Totals**	**718**	**1373 (682)****	**364**	***2.0***	***3.8 (1.9)****
Little Gaddesden	35	50	13	*2.7*	*3.8*						

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

*** Figures excluding 691 events, reported by two individuals in Hemel Hempstead (412) and Tring (279).*

7.8 Location of Complaints



7.9 Method of Complaint Receipt

How Received	% of Total Complaints
Telephone	54%
E-mail*	43%
Letter	2.5%
Fax	0.25%
Verbal	0.25%

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

***** A link also exists on the 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.

8. *Employment*

8.1 Introduction

8.1.1 Employment at and surrounding LLA contributes significant economic benefits to Luton as a whole and the sub-region. A large number of businesses are based at 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 is usually conducted each year and reported in the AMR.

8.1.2 However, for 2005 LLAOL commissioned the Halcrow employment study: 'London Luton Airport - Project 2030 Economic Impact Report September 2005'.

8.1.3 Halcrow Group Ltd, in association with Public & Corporate Economic Consultants (PACEC) were commissioned to assess the employment implications for the Project 2030 Master plan.

8.1.4 Nevertheless, this study took as a base line the Borough Council's 2004 AMR employment survey results (which were adjusted for problems with non responses) modelled against multipliers and forecasts to derive the spin off employment impact of the airport for the Borough, its catchment and the wider region up to 2030.

8.2 Methodology

8.2.1 This section therefore, only sets out some of the enhanced key findings from the Halcrow study based on the 2004 position but does not give an enhanced position for 2005 as no survey was undertaken. The study also looked at direct employment, forecast employment, ethnicity and skills and the Luton employment catchments:-

Direct employment – employment directly related to the operation of the airport. Principal airport related activities include: aircraft maintenance, airlines, air traffic control, car parking, car rentals, cleaning, couriers, customs & immigration, freight forwarders, fuel services, ground handling, in-flight catering, passenger handling, restaurants, retail, security.
Indirect employment – employment in the chain of suppliers of goods & services to direct business activities, starting with (but not including in the chain) direct organisations.
Induced employment – employment generated in the economy of the study area by spending of incomes by direct and indirect employees.
Catalytic employment - generated in the economy of the study area by the wider role of the airport in improving the productivity of businesses and in attracting economic activities such as inward investment and inbound tourism. Employment (excluding direct, indirect and induced) which would not exist in the absence of the airport, due to the direct business usage of the airport or due to its use by consumers.

8.2.2 For a full explanation of the methodology and assumptions used, reference will have to be made to the full report which can be accessed at:-
http://www.london-luton.co.uk/en/content.asp?area=6&id=983
email: **project2030@ltn.aero**
Telephone: +44 (0)1582 395666.

8.3 Key findings

8.3.1 Current activity in terms of the level of employment currently supported gives around 8,206 direct on and off-site employees in 2004.

8.3.2 Based on this level of direct employment the report estimates that total employment supported by Luton in the 'East of England region is around 14,400. Around 50% of the employment related to LLA is direct employment on the airport site, with a further 7% accounted for by direct off-site employment located close to the airport. The forecast distribution of direct, indirect and induced employment is shown in the table below.

8.3.3 As stated above:-

Estimate of employment currently supported by London Luton Airport 2004

Gross Airport related jobs (000s)							
	Core	Outer (EoE)	Outer (SE)	Rest of EoE	Catchment	EoE Region	EoE+2
Direct on-site jobs	7,140	0	0	0	7,140	7,140	7,140
Direct off-site jobs	1,070	0	0	0	1,070	1,070	1,070
Indirect jobs	1,520	730	330	460	2,580	2,710	3,040
Induced jobs	1,360	690	380	720	2,430	2,770	3,150
Catalytic jobs	0	0	0	0	0	0	0
Gross airport related jobs	**11,090**	**1,420**	**710**	**1,180**	**13,220**	**13,690**	**14,400**

EoE is the East of England. EoE+2 includes the outer catchment in the South East (Aylesbury Vale & Milton Keynes)
Source: PACEC/Halcrow (Note: Totals may not add up due to rounding)

8.3.4 An assessment using Input-Output model of purchases of goods and services in the UK economy that calculates an indirect regional multiplier of 1.37 and an induced multiplier of 1.28 suggests:-

- indirect employment supported in the East of England region by London Luton activities amounts to 3,040 jobs.
- induced employment (associated with direct and indirect employment impacts) amounts to 3,150 jobs in the region.

8.3.5 Based on the air traffic modelling scenario's of a 'base case' where the airport does not expand in accordance with Project 2030 and a 'Reference case' where it does:-

- Base case (i.e. existing 2,160m runway at full capacity): the total gross employment supported in the 'East of England plus 2' area by this level of airport activity in 2031 is estimated at 15,200 employees, an increase of 11 percent over estimated employment of 13,700 in 2001.
- Reference case (i.e. replacement runway): the gross employment supported in the 'East of England plus 2' region by this traffic would be 33,000 employees, half of which would continue to be direct jobs within the airport perimeter and 77% within the 'core' catchment area.
- the gross additionality of Project 2030 over the 'Base Case' is 17,800 jobs.

8.3.6 Other key implications include (ignoring commuting):-

- the majority of the employment additionality is found within direct employment categories and therefore strongly located within the airport's core catchment area.
- additionality created is focused in the period 2011-2016 (+9,500 jobs) when the extra capacity will be delivered by the project and significant efforts will be needed to attract and train an adequate labour supply.
- significant additionality created in subsequent periods as the new capacity created is taken up at LLA.

In terms of skills, gender and ethnicity:-

- within the catchment area, a potential surplus of 'managerial & professional', 'technical & admin' labour skills to available jobs.
- but a shortage of lower end skills.
- overall a deficit of 1,000 jobs compared to available economically active by 2031.
- airport related employment is traditionally more dependent on a Black and Ethnic Minority Population (BEM) workforce than the wider economy, and that the proportion of BEM staff is set to increase in the period to 2031.
- it is only in terms of employment gender that a potential jobs gap may occur (with an excess of job over activity of males, but a gap for female staff).

9. *Surface Access*

LLAOL established its Surface Access Working Group (SAWG) in December 1998 and since then has held regular meetings. All Airport tenant companies are represented on this group. The aims of the group include promoting modal shift to public transport, cycling and walking for airport employees and airport users (including the production of a Company Travel Plan).

9.1. Road Traffic

9.1.1. The Summer road count for 2005 (Figure 9.5) shows increases in traffic flows compared with the previously measured year on all of the 7 monitored roads for 12-hour weekdays (12/5) whereas, for the 24-hour week (24/7), only Airport Way and Frank Lester Way, serving the airport, experienced increased traffic flows.

9.1.2. The Winter count for 2005/06 shows decreases in 12/5 flows compared with the previously measured year except for Airport Way, Frank Lester Way and Lower Harpenden Road which all increased. This pattern is mirrored in similar reduced flows 24/7 with the exceptions of Airport Way and Frank Lester Way although in this instance, Lower Harpenden Road traffic flows reduced.

9.2. Public Transport Services

9.2.1. The table below shows the number of scheduled train services per week from Luton Airport Parkway Station (opened in November 1999). There is a suggested decrease in the number of services for Summer 2004-2005 and Winter 2004/2005-2005/2006 which may be because some services now terminate at St. Albans. However, a direct comparison with last year's Summer and Winter figures is not possible because of disruption due to the Channel Tunnel rail works which meant 3 monthly timetables in 2004/2005.

TRAIN SERVICES FROM LUTON AIRPORT PARKWAY STATION

Number of services per week 7 days	Summer 03	Winter 03/04 Sep-Dec 03*	Winter 03/04 Jan-Mar 04*	Summer 04 23 May*	11 Sept 04*	Winter 04/05 Dec– May*	Summer 05	Winter 05/06
Direction								
Northbound	976	935	961	939	870	868	857	858
Southbound	904	823	904	901	853	854	811	818
TOTAL	**1,880**	**1,758**	**1,865**	**1,840**	**1,723**	**1,722**	**1,668**	**1,676**

**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. The following table suggests that local bus services to Luton reduced between 2004 and 2005. However, this is the result of a further technical revision to how the bus services are counted for better accuracy (see ✠ footnote to table). A recalibration of the 2004 total for local and national services suggests a trend of bus service increases. The seasonable position in 2005/06 suggests a marginal reduction in bus services Summer to Winter impacting on the railway station and other destinations. Whereas, airport to airport coach services increased as a result of services to Stansted airport.

BUS AND COACH SERVICES FROM LONDON LUTON AIRPORT

Number of Services per Week	Summer 04	Winter 04/05	Summer 05	Winter 05/06
Destination				
LOCAL				
Luton Railway Station	350	349	352	346
(for Railway Station) Others	462	461	458	452
National				
Central London	286	466	505	505
Others	520	481	504	504
TOTAL	**1,618**	**1,757**	**1,819**	**1,807**
AIRPORT- AIRPORT LINK				
Birmingham	56	63	63	63
East Midlands	0	0	0	0
London Gatwick	141	152	126	126
London Heathrow	204	222	196	196
London Stansted	56	56	56	112
Manchester	7	7	7	7
TOTAL*	**464✠**	**500✠**	**392✠**	**448✠**

**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.

✠ The methodology for compiling the bus services figures was reviewed this year following changes in recording procedures. As a result double counting along with undercounting and some errors have been uncovered which will affect previous years data before Summer and Winter 2005/06. The results for Summer 2004 and Winter 2004/2005 have been recalibrated and are presented here for comparison. Although direct comparisons between these figures and previous years are now unsafe, it is reasonable to conclude an annual trend increase in bus and coach services.

9.3. Additional Information

9.3.1 LLAOL is required to produce a Surface Access Strategy and has set up an Airport Transport Forum (set up in January 2000), and SAWG to address this wider issue in conjunction with the development of the Local Transport Plan (LTP) and in line with the recommendations of the 1998 Transport White Paper. A Surface Access Strategy was produced in July 2000. This sets targets for public transport, cycling, and walking to the Airport by air passengers and employees. These targets are being monitored regularly, as part of the wider LTP monitoring framework.

9.3.2 Staff car parking capacity has again remained unchanged during 2005, however the long-term passenger car park was extended by approximately 1,100 spaces to complete the second phase car park extension.

9.4. Car Parking

Passenger	Spaces	Area m²
Short Term	1,556	39,373
Mid Term	3,379	82,321
Long Term	3,400*	72,150
Passenger Total	***8,335***	***193,844***
Staff Total	***3,835***	***97,270***
Total	**12,170**	**291,114**

These figures exclude off site car parking

**Long Term Car Park had 2,291 spaces until 24th March 2005 when the final part of the extension opened.*

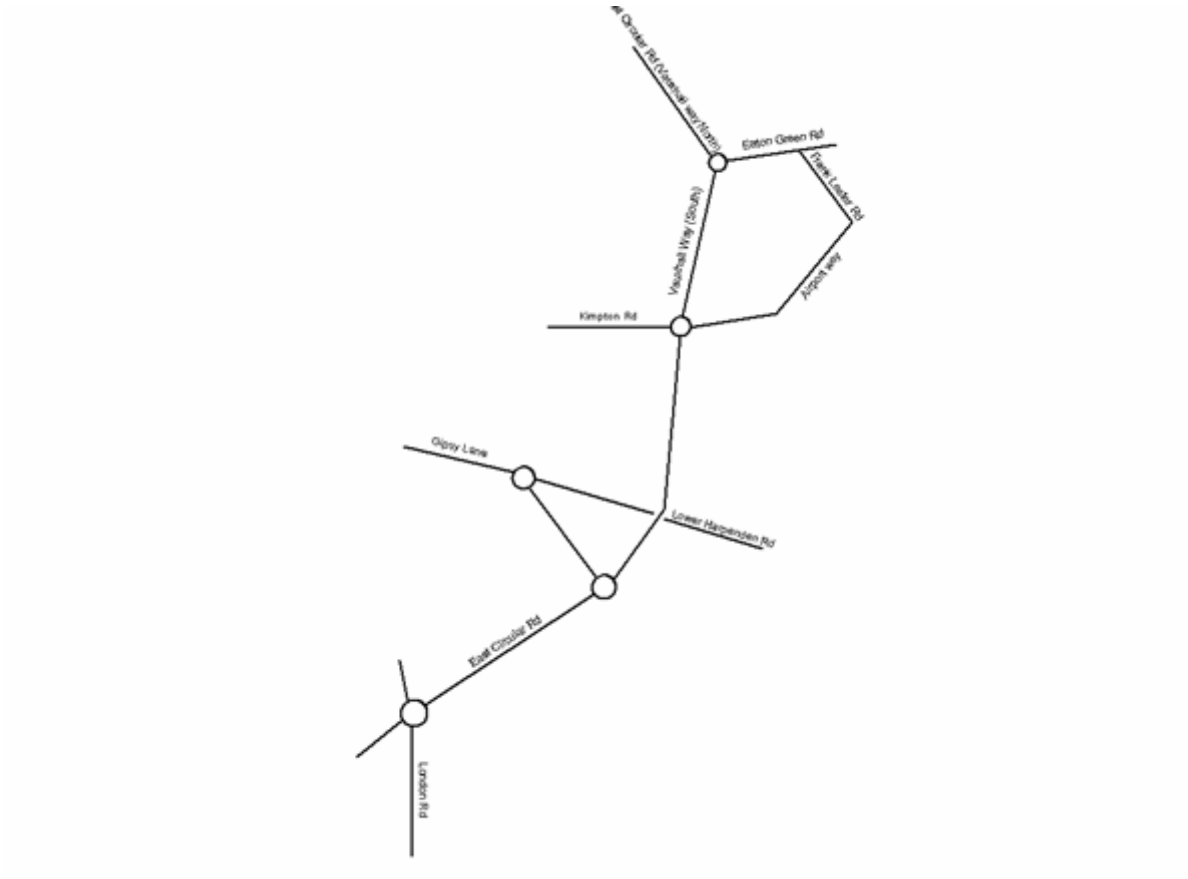
9.5. Traffic Counts

Traffic Count - Winter (Average 12hrs)	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005 /2006
Airport Way	0	25916	15036	15368	16047
Lower Harpenden Rd.	7808	9554	10268	9575	10664
London Rd	0	11980	14406	14394	11834
Frank Lester Way	0	8003	8394	8545	8700
Vauxhall Way South	0	21018	22027	21537	20985
Vauxhall Way North	0	16380	16870	16415	15988
Eaton Green Rd	0	12967	13010	13058	12267

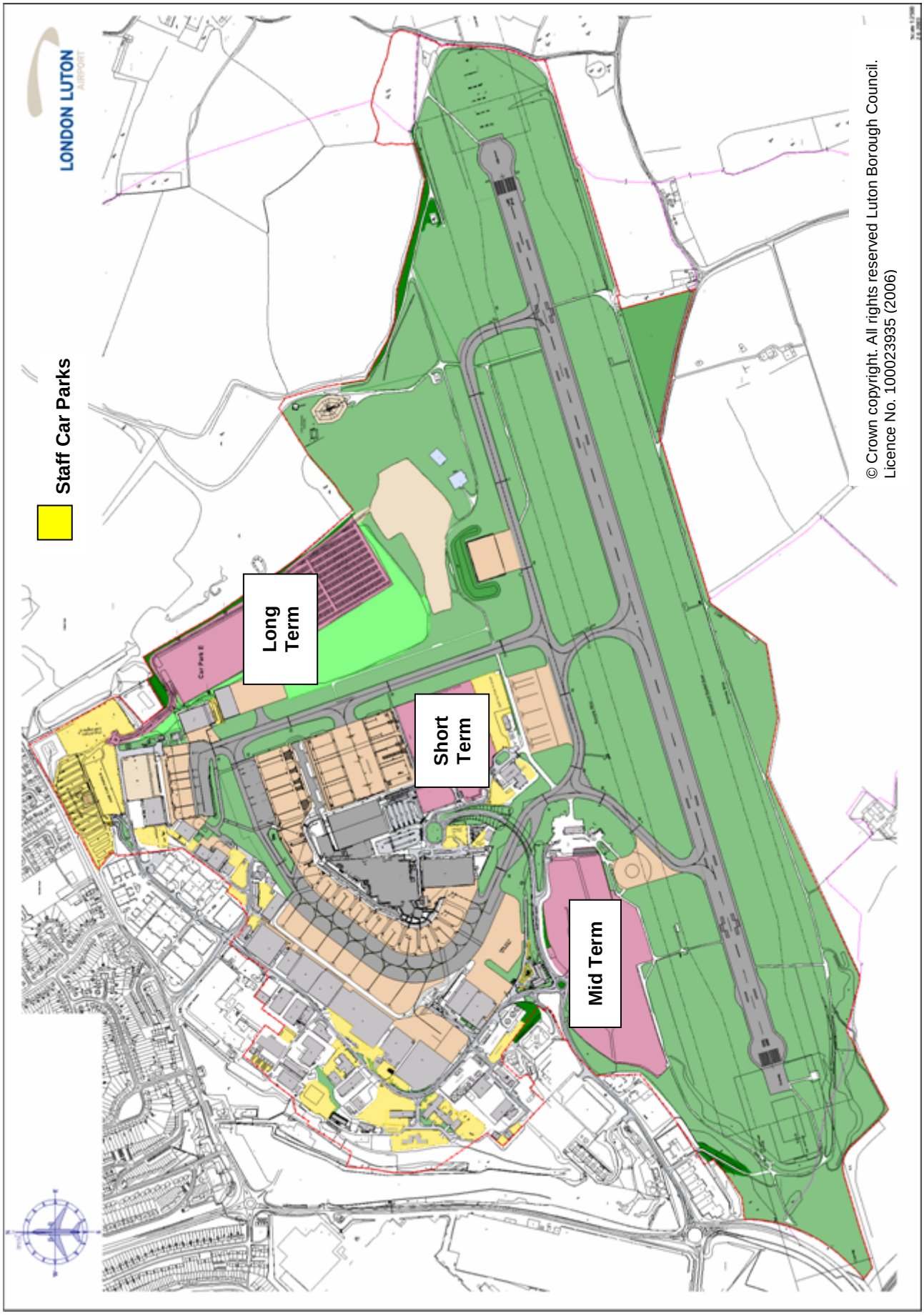
Traffic Count - Winter (Average 24hrs)	2001/ 2002	2002/ 2003	2003/ 2004	2004 /2005	2005/ 2006
Airport Way	0	33128	19330	20281	21498
Lower Harpenden Rd.	9431	10551	11016	12993	11312
London Rd	0	15900	17684	17596	15142
Frank Lester Way	0	8526	8741	9056	9405
Vauxhall Way South	0	26366	26966	26079	25813
Vauxhall Way North	0	20998	21183	20406	20298
Eaton Green Rd	0	16200	16398	16279	15405

Traffic Count - Summer (Average 12hrs)					
Airport Way	6498	26615	16115	16853	18173
Lower Harpenden Rd.	8424	8847	9797	9993	10837
London Rd	12787	12806	15314	15385	16338
Frank Lester Way	7192	7595	7688	8104	9128
Vauxhall Way South	0	20875	21597	21855	24609
Vauxhall Way North	0	16922	17217	17623	20484
Eaton Green Rd	11029	12162	13068	12909	14849

Traffic Count - Summer (Average 24hrs)					
Airport Way	9608	35432	22767	24306	26532
Lower Harpenden Rd.	10500	10051	10826	10913	10426
London Rd	16175	16622	18517	18939	17406
Frank Lester Way	7922	8337	8361	8871	10275
Vauxhall Way South	0	26551	26499	27666	26135
Vauxhall Way North	0	21881	21887	22470	19184
Eaton Green Rd	14069	15328	16093	16205	14873



9.6. Passenger and Staff Car Parking



10. *Planning*

10.1 Local Planning Policy

10.1.1 The Planning System has been reformed by the Planning and Compulsory Purchase Act 2004. The Borough of Luton Local Plan (adopted April 1997), together with the adopted Bedfordshire County Structure Plan 2011 (adopted March 1997) remain the statutory Development Plan for the whole of Luton, until replaced by emerging planning policies under the new system which includes a Local Development Framework (LDF) for Luton, Regional Spatial Strategy (RSS) and sub regional planning strategies. Furthermore, the London Luton Airport Development Brief (February 2000) sets out detailed proposals for further development at LLA and is adopted by Luton Borough Council as Supplementary Planning Guidance (September 2001).

10.1.2 Pending the LDF and RSS, Luton Local Plan is currently being reviewed to 2011 to be in conformity with the adopted Structure Plan 2011 and with current Government policy. The Local Plan Inquiry was held in Winter 2004. The Planning Inspector recommended that for monitoring purposes, the 1999 predicted Leq Day and Night noise contours be used as the new policy baseline for expansion to the period 2011 (monitored within the AMR). The plan is expected to be adopted in early 2006. Draft policies LLA1, LLA2, LLA3 and LLA4 deal with growth and development at LLA. Draft policy LLA1 supports expansion provided it is airport related, not in conflict with national or regional aviation policies, results in aircraft noise that is below the 1999 level, incorporates sustainable transport measures, is in accordance with the most recent adopted Development Brief and provides car parking in accordance with the most recent Surface Access Strategy. The Local Plan will be saved for 3 years from adoption and will eventually be replaced by a Local Development Document (LDD) within the LDF under the new Planning Act. The airport published a new airport master plan for consultation in October 2005. The council will take this document into account when undertaking to progress an LDF for Luton and the Borough's role within a growth area identified by the Milton Keynes – South Midlands Sub Regional Strategy (see section 10.2.13).

10.2 Strategic Planning Policy

10.2.1 The Bedfordshire Structure Plan 2011, adopted in March 1997, includes policy 48 which supports expansion of LLA up to about 10 million passengers per annum (mppa) for the period up to 2011, provided that it can be sustained within 1984 Day and Night noise contour footprints and satisfy environmental and infrastructure criteria. However, as set out in section 10.1.2, the new Local Plan when it is adopted will provide the more up to date policy framework to 2011 while emerging draft RSS which saves this policy 48 (i.e. draft RSS14 Appendix E policies) will actually replace it with a new policy covering the period to 2021 and set out the long term planning framework together with the Aviation Transport White Paper and the Airport Master Plan.

10.2.2 As set out in the above, the new planning system of statutory Regional Spatial Strategies (RSS which replace RPG's) and Local Development Frameworks (Local Plans will be replaced by a number of Local Development Documents contained within the LDF).

10.2.3 September 2004 Bedfordshire County Council resolved as follows:-
"Subject to prior provision of transport infrastructure and satisfactory mitigation of environmental impacts, the expansion of LLA beyond 10 mppa is accepted".

10.2.4 Under the old planning system, 'Regional Planning Guidance' for the South East (RPG9 - now RSS9 2001 - 2016) identified Luton/Dunstable/Houghton Regis as a Priority Area for Economic Regeneration (PAER) and recognises the potential for LLA to act as a catalyst for major employment growth and wealth generation in the area subject to social and environmental implications.

10.2.5 Following the Government's alterations to regional planning boundaries in 2001, Bedfordshire and Luton now reside within the East of England Region. The East of England Regional Assembly (EERA) is the Regional Planning Body which is preparing the new East of England RSS (i.e. draft RSS14 now called the 'East of England Plan') for the period 2001 to 2021. The draft 'East of England Plan' was put for public consultation in Autumn 2004. A Public Examination commenced in September 2005 and will complete in March 2006.

10.2.6 Luton is also designated as within a 'Luton Dunstable/Houghton Regis Growth Area' established in the adopted 'Milton Keynes – South Midlands Sub Regional Strategy' March 2005 (MK-SM SRS). The MKSM-SRS is not a separate strategy but will form part of revisions to RSS8 (East Midlands), RSS9 (South East) and in particular replace Paragraphs 12.35 to 12.41 of RSS9 as it relates to the East of England region.

10.2.7 The Government's White Paper on The Future of Air Transport in the UK sets out a 'measured and balanced approach providing a strategic framework for the development of air travel over the next 30 years'. The White Paper invited airport operators such as LLAOL to produce an airport Master Plan covering the period up to 2015 outlining necessary environmental controls, mitigation plans and proposals for improved surface access etc but with indicative plans beyond to 2030. The appropriate planning and transportation bodies will need to take these into account, together with the White Paper, in their guidance, strategies and decisions. Airport development will continue to be subject to the planning system. In October 2005 LLA published its Master Plan for public consultation ending January 2006. Subject to any views that the Council may have on the Master Plan, it may be used to inform joint LDD preparation (as an administrative document) in relation to the proposed Luton/Dunstable Houghton Regis growth area as it affects the south east of Luton, infrastructure and employment land issues. The local authorities may decide to incorporate the document into the planning process at a later stage.

10.2.8 The draft East of England Plan (RSS14) proposes the expansion of LLA up to the maximum capacity of the existing 2,160m runway (draft Policy BL1). The draft 'East of England Plan' considers that the associated increases in freight and passenger activity at the airport will create a need for new employment development. A report commissioned jointly by EERA and East of England Development Agency (EEDA), examined the economic benefits of the Airport and identified that even without a longer runway, airport-related employment associated with Luton will grow significantly in the period to 2021. Following adoption, a rapid review of draft RSS14, will then consider the further expansion of Luton arising from the White Paper and published Master Plan.

10.3 Local Transport Planning

10.3.1 The Local Transport Plan 2001-2006 (LTP1) was submitted to central Government in July 2000. It contains two major transport schemes for the Airport area: the Translink busway and road and junction improvements in the East Luton corridor. The latter received Government approval following a Public Inquiry in 2005. Funding has been arranged through both the Communities Infrastructure Fund and the second phase of the Growth Areas Fund and construction will begin in the first half of 2006. The Translink scheme received provisional funding though the LTP capital programme in December 2003 and is currently the subject of a Public Inquiry. If approved, construction is expected to begin in 2007.

10.3.2 The Local Transport Plan 2006-2011 (LTP2) was submitted to central Government in July 2005. It updates the first Local Transport Plan, retaining many of the schemes in it (including the Translink and East Luton Corridor schemes). A feature of the new round of LTPs is that they are 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 to give a new entrance on Kimpton Road, supporting the proposed tracked transit system to the Airport. The LTP also proposes a range of other measures to give better access to the Airport, particularly for employees. A full Local Transport Plan for this period will be submitted in March 2006.

10.3.3 Following the recommendations of the 1998 White Paper 'A New Deal For Transport', LLAOL drew up an Airport Surface Access Strategy (ASAS) in 2000. The Airport established an Airport Transport Forum Steering Group, involving local authorities, transport operators and other bodies, to advise on measures for achieving proposed modal shift targets. The Airport produced an revised Airport Surface Access Strategy Consultation document in late 2005 as part of its Master Plan. It sets out proposals for measures to support forecast expansion up to 23.5 mppa in 2015 and to 30 mppa in 2030. These include a tracked transit system running from an enlarged Luton Airport Parkway station and a central reception area on the Airport site with facilities for interchange among all the main surface access modes. The Airport also aims to accommodate as much as possible of its projected parking requirements on the Airport site, although it also intends to encourage a greater proportion of air passengers to reach the airport by public transport and so to keep the demand for parking spaces within reasonable limits. The Strategy also states that the Airport will work with bus, coach and rail operators and the local authority to effect other improvements to surface access.

10.3.4 LLAOL are likely to submit a planning application during 2006, as a forerunner of the proposals outlined in the draft Master Plan, which are expected to provide facilities broadly in line with the Development Brief adopted by Luton Borough Council as supplementary planning guidance in September 2001.

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.
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. NPR's 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.
Private	Private Aircraft/Helicopters and Business Jets also termed as General Aviation.
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	www.london-luton.co.uk
Luton Borough Council	www.luton.gov.uk
The Civil Aviation Authority	www.caa.co.uk
The Department for Transport (Aviation)	www.dft.gov.uk/aviation
Hertfordshire & Bedfordshire Air Quality Monitoring Network	www.hertsbedsair.org.uk
London Luton Airport Consultative Committee	www.llacc.com

Appendix A – Night Jet Policy

NIGHT JET POLICY

ISSUE 5

Department: Airfield Environment - Airfield Operations

Authority: Airport Services 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, 2002

Review Date: November 30, 2004

Review Status: Amended September 15, 2003

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

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 Jet 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 closely 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^2.

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 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;

88 – 91 dB(A) – 300% surcharge

92 – 95 dB(A) – 500% surcharge

Above 95 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 From 1st April 2002, LLAO will develop 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 will be developed in consultation with the affected local authorities and community representatives. The results of the monitoring will be reported to the LLACC.

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

With effect from 1st 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 from the requirements of the Aeroplane Noise Regulations;
- Departures permitted in an emergency consisting of an immediate danger to life or health;
- Delays to aircraft which are likely to lead to serious congestion at the aerodrome or serious hardship or suffering to passengers and/or animals;
- Delays to aircraft resulting from widespread and prolonged 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 exclude 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.

Notes

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

19.0 This policy shall apply from 1st April 2002 to 31st March 2007. A review of this policy shall commence no later than 3-months after the Bedfordshire Structure Plan and the Borough of Luton Local Plan have been reviewed and the Government White Paper on Aviation has been published. In any event an interim review of this policy shall take place in November 2004 and the results reported to the LLACC by 31st March 2005.

APPENDIX B - AMR 2004 Addendum

An internal airport audit uncovered an error within the reports for the day/night split during the Summer months 2004.

Within the airport accounting systems all flight movement data is stored as UTC (GMT) which is common for recording air traffic movements throughout the UK.

The discrepancy during the Summer months has only occurred with the clocks changing from GMT to BST which has resulted in 00:00-07:00 (local) being reported instead of 23:00-06:00 (local). This has resulted in an average 2-3 additional movements per day being included within the night figures. The tables affected within the 2004 AMR are:- Table 4.2 Day/Night Ratio and Table 4.5 Departure Route Analysis.

Total movements and the figures used for calculating noise contours and complaints data remain unchanged.

4.2 Day / Night Ratio of Movements 2004

	Arrivals		Departures		Totals		
	Day	**Night**	**Day**	**Night**	**Day**	**Night**	**Total**
Jan	2,963	277	3,036	192	**5,999**	**469**	**6,468**
Feb	3,036	278	3,125	187	**6,161**	**465**	**6,626**
Mar	3,245	293	3,336	200	**6,581**	**493**	**7,074**
Apr	3,249	377	3,403	222	**6,652**	**599**	**7,251**
May	3,631	440	3,883	200	**7,514**	**640**	**8,154**
Jun	3,802	568	4,075	257	**7,877**	**825**	**8,702**
Jul	3,905	525	4,207	258	**8,112**	**783**	**8,895**
Aug	3,809	524	4,026	292	**7,835**	**816**	**8,651**
Sep	3,931	494	4,151	270	**8,082**	**764**	**8,846**
Oct	3,854	452	4,056	239	**7,910**	**691**	**8,601**
Nov	3,496	291	3,570	226	**7,066**	**517**	**7,583**
Dec	3,449	264	3,549	185	**6,998**	**449**	**7,447**
Total	**42,370**	**4,783**	**44,417**	**2,728**	**86,787**	**7,511**	**94,298**

4.5 Departure Route Analysis 2004

		Clacton*		Compton		Olney		Other**		Heli	Total
		08	26	08	26	08	26	08	26		
	Day	41	511	96	1,209	71	869	9	140	90	**3,036**
Jan	Night	15	71	7	36	6	26	1	4	26	**192**
	Total	***56***	***582***	***103***	***1,245***	***77***	***895***	***10***	***144***	***116***	***3,228***
	Day	199	399	422	906	284	612	61	128	114	**3,125**
Feb	Night	27	64	11	26	8	19	3	3	26	**187**
	Total	***226***	***463***	***433***	***932***	***292***	***631***	***64***	***131***	***140***	***3,312***
	Day	300	331	625	774	474	549	94	99	90	**3,336**
Mar	Night	47	48	20	30	13	17	2	6	17	**200**
	Total	***347***	***379***	***645***	***804***	***487***	***566***	***96***	***105***	***107***	***3,536***
	Day	225	375	571	985	339	573	86	140	109	**3,403**
Apr	Night	39	62	19	49	7	11	2	9	24	**222**
	Total	***264***	***437***	***590***	***1,034***	***346***	***584***	***88***	***149***	***133***	***3,625***
	Day	359	467	704	1,038	406	552	99	146	112	**3,883**
May	Night	45	48	19	49	7	5	2	2	23	**200**
	Total	***404***	***515***	***723***	***1,087***	***413***	***557***	***101***	***148***	***135***	***4,083***
	Day	68	791	173	1,650	90	889	22	291	101	**4,075**
Jun	Night	19	102	15	60	2	18	8	9	24	**257**
	Total	***87***	***893***	***188***	***1,710***	***92***	***907***	***30***	***300***	***125***	***4,332***
	Day	173	746	347	1,524	210	836	39	222	110	**4,207**
Jul	Night	23	83	19	67	6	17	1	7	35	**258**
	Total	***196***	***829***	***366***	***1,591***	***216***	***853***	***40***	***229***	***145***	***4,465***
	Day	194	737	371	1,466	199	747	42	194	76	**4,026**
Aug	Night	45	71	35	78	13	19	1	3	27	**292**
	Total	***239***	***808***	***406***	***1,544***	***212***	***766***	***43***	***197***	***103***	***4,318***
	Day	187	880	313	1,380	190	815	40	227	119	**4,151**
Sep	Night	17	86	16	84	11	20	2	7	27	**270**
	Total	***204***	***966***	***329***	***1,464***	***201***	***835***	***42***	***234***	***146***	***4,421***
	Day	362	685	608	1,048	361	682	85	117	108	**4,056**
Oct	Night	31	53	32	59	11	20	1	4	28	**239**
	Total	***393***	***738***	***640***	***1,107***	***372***	***702***	***86***	***121***	***136***	***4,295***
	Day	226	809	279	1,024	201	723	38	175	95	**3,570**
Nov	Night	17	72	16	48	7	31	1	9	25	**226**
	Total	***243***	***881***	***295***	***1,072***	***208***	***754***	***39***	***184***	***120***	***3,796***
	Day	188	889	258	1,053	163	743	40	134	81	**3,549**
Dec	Night	16	56	13	50	6	23	3	2	16	**185**
	Total	***204***	***945***	***271***	***1,103***	***169***	***766***	***43***	***136***	***97***	***3,734***
Day Total		***2,522***	***7,620***	***4,767***	***14,057***	***2,988***	***8,590***	***655***	***2,013***	***1,205***	***44,417***
Night Total		***341***	***816***	***222***	***636***	***97***	***226***	***27***	***65***	***298***	***2,728***
Total		**2,863**	**8,436**	**4,989**	**14,693**	**3,085**	**8,816**	**682**	**2,078**	**1,503**	**47,145**

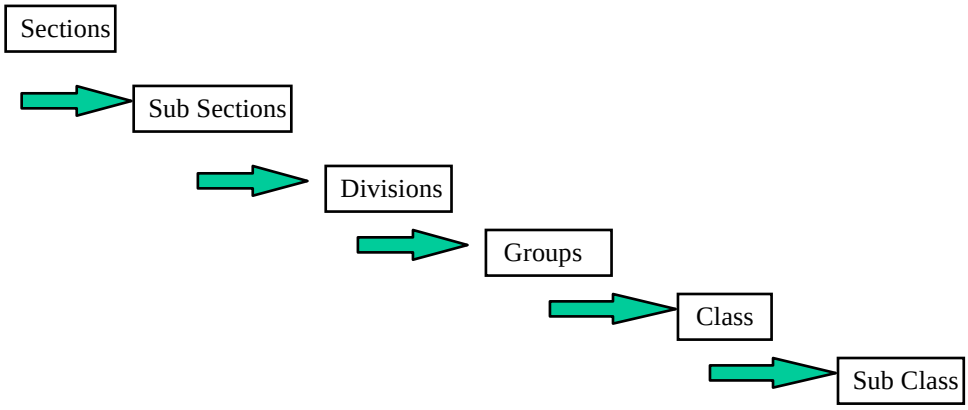
APPENDIX C - Employment Chapter Data Collection Methodology

Standard Industrial Classification of Economic Activities - SIC92

The SIC was first introduced in 1948, and since then it has been revised a number of times, the last being in 1992. The UK SIC92 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:



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. 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.

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 9.6). 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

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