

Annual Monitoring Report 2006









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Executive Summary

Activity

London Luton Airport (LLA) served 9.4 million passengers in 2006, 3% more than in 2005. This indicates a marked reduction in passenger growth from the 21% in 2005 and 11% in 2004. The services included 19 new scheduled routes offering a total of 76 destinations during 2006; with 8 more planned for 2007. The aircraft movements consisted of 81,728 passenger movements, an increase of 6% over 2005, out of the total activity in 2006 of 116,132. The most common aircraft type was the Boeing 737, used for over 60% of passenger aircraft movements.

Operational Matters

The mode of operation at the airport consisted, as usual, of a predominance of westerly operations, with landings from the direction of Stevenage and departures towards the M1 for 70% of the time. The proportion of movements during the night period as opposed to daytime has reduced to 8% in 2006 from 9% in 2005. No modification to the departure routes occurred; the busiest departure route being Compton, that is towards the Tring area.

From 11th May 2006 arriving aircraft from the Lorel Stack started to use the Western Airspace extension, and therefore approached the Airport to the south of Leighton Buzzard and then after overflying the rural areas and some of the villages in Aylesbury Vale District join the extended centre line of the runway north of Tring. This allows the use of the Continuous Descent Approach (CDA) technique to minimise arrival noise, which was not possible on the previous approach route from the Lorel Stack. The previous approach route followed an s-shaped curve, overflying Luton and the south of the Airport towards Hemel Hempstead before executing a 180° turn onto the extended centreline of the runway. This change only applies to easterly operation days which occur for approximately 30% of the year.

Developments

During 2006, London Luton Airport Operations Ltd. (LLAOL), carried out a runway resurfacing project during the night-time, with the runway out of operation from 1^{st} March – 30^{th} June (00.00 – 05.45 hrs Tuesday – Saturday) and from 1^{st} October – 30^{th} November 2006 (00.00 – 05.45 hrs Tuesday – Saturday).

Other developments at the Airport included;

- The commencement of a comprehensive refurbishment programme of an existing hangar for use as offices and hangar space for easyJet.
- The refurbishment of part of the terminal building to provide check-in facilities for Silverjet.

<u>Planning</u>

The new Borough of Luton Local Plan was adopted in March 2006 and included policies LLA1, LLA2, LLA3, and LLA4 dealing with growth and development at LLA. Policy LLA1 supports development at the Airport subject to 6 provisions, provision (iv) states that the development shall result in an aircraft noise impact that is below the 1999 forecast level.

<u>Noise</u>

The aircraft noise in 2006 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 situation as occurred in 2005. This indicates that most aircraft operated with individual noise levels well below the current violation limits.

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



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	Daytime (57dB L _{Aeq,16h}) in Km ²	Night-time (48 dB L _{Aeq,8h}) in Km ²
NOT TO BE EXCEEDED	31.5	85.0
NOISE REDUCTION ACTION PLAN TO BE IMPLEMENTED	19.6	60.6
ACTUAL 2006	14.90	29.20

In essence, the Airport is operating well within its planning limits. The daytime noise contour area has increased by 11% from 2005; the night-time noise contour area has also increased by around 10%. The latter has increased despite the six months runway closure which reduced night-time activity in the hours midnight to 05.45.

The population within the daytime contours increased from 2,631 (2005) to 2969 (2006). The population within the night contours increased from 7508 (2005) to 8187 (2006).

Complaints

During 2006 a total of 1637 complaints relating to LLA aircraft operations were received, considerably more than the 718 in 2005. The number of complainants has also increased from 364 in 2005 to 718 in 2006. The number of complainants was much greater during the very hot month of June 2006. The aircraft operations for which most complaints arose were those made by private helicopters. Activity by helicopters did increase from 3927 (2005) to 4685 (2006).

Complainants were located in a wide area around the Airport, with large increases in the number of complainants per settlement in Flitton, Slapton, Toddington and increases in Harpenden, Kimpton, Kinsbourne Green, Redbourn, Wheathampstead and Whitwell. The greatest incidence of complainants occurred in Harpenden, whereas in both 2004 and 2005 Luton had the greatest number of complainants.

Employment

Difficulties continue to be experienced in provision of accurate employment statistics due to the 36% nonresponse rate of businesses related to the Airport. However, it has been assessed that overall 7,700 people work at or around the Airport site. From data provided by those companies that responded it is estimated that 60% of employees live in Luton, and of the jobs 82% are full time, and the jobs are carried out by 57% males and 43% females.

Road traffic

Road traffic volumes have generally not altered significantly in the 7 monitored roads around the Airport. The maximum change occurred on London Road in the winter period, where a 38% increase was assessed. The number of train services has reduced from the 1668 services per week down to 1660 in summer 2006. The number of bus services increased from 1819 services per week in summer 2005 to 2087 in 2006. This was due to an increase in bus services to Stansted Airport and London. Staff car parking capacity has remained unchanged during 2006, however the Mid-term passenger car park was reduced by approximately 600 spaces due to works commencing on the East Luton Corridor.

Conclusion

In essence the Airport has served slightly more passengers with slightly more frequent aircraft movements in 2006. The Airport has continued to provide major employment for the area. The Airport has introduced a new arrival route through the Western Airspace Extension and resurfaced the runway.

There has been an approximately 10% increase in the noise contour areas and the population within the Airports' noise contours. There has been a large increase in complaints to the Airport and in the number of complainants. The Airport however is operating with noise emissions well within the limits set by the planning permission for the terminal resolved in February 1998.

Bickerdike Allen Partners





1. Background

- **1.1.** As a result of the Airport Act 1986, Luton Borough Council (LBC) formed a Limited Company, London Luton Airport Ltd, as freeholders and operators of the Airport in April 1987. In August of 1998, LLA Ltd then granted a 30 year agreement to a private consortium, known as LLAOL, as the licensed managers and operators.
- **1.2.** This report is the 28th Annual Monitoring Report (AMR) and unless otherwise stated, looks at the calendar year 2006. It has been produced jointly by LBC and LLAOL.
- **1.3.** In 1978, LBC in accepting the conclusions of the report of the Council's Chief Executive, entitled "Luton Airport, A Plan for the Future", affirmed the importance of monitoring in connection with noise levels, employment and housing and the effect on the highway system and placed on record their willingness to discuss the results of such monitoring with interested bodies and in particular with the London Luton Airport Consultative Committee (LLACC). The arrangements for monitoring were approved in June 1979 and were reaffirmed in the Borough Council's 1985 Policy Document "Towards 5 million Passengers".
- **1.4.** The results are also used to monitor the performance of the Borough of Luton Local Plan approved in 1997 now superseded by the adopted Borough of Luton Local Plan March 2006 and constitute one of the material considerations when the Borough Council considers development proposals or determines planning applications for further development of the Airport.
- **1.5.** Any monitoring system of this nature will have minor inaccuracies that can only be resolved as the monitoring arrangements evolve. Where more accurate figures for previous years have become available, these have been incorporated in the Report. Where additional information for previous years has become available this has also been included in the Report. Where data is no longer available then this is also identified with reasons.
- **1.6.** The Leq contours are produced by Bureau Veritas Acoustics & Vibration for LLAOL using the FAA INM (Integrated Noise Model) model and LLAOL provide the contour outputs to LBC. The information relating to household and population has been produced for LLAOL by URS Corporation Ltd.
- **1.7.** This is the 20th Annual Monitoring Report to be prepared since LLA became a Limited Company. All operational statistics are saved directly from the Airport's electronic monitoring systems unless otherwise stated. Employment and surface access data is compiled from LBC's monitoring systems.
- **1.8.** The Report forms part of a series of joint monitoring documents produced by the Borough Council as Local Planning Authority and LLAOL.
- 1.9. 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.
- **1.10.** Following extensive work between LBC and LLAOL the 2004 AMR radically improved the speed of information delivery, the format and content in accordance with the wishes of LLACC. Sections 2-7 have been produced exclusively by LLAOL, 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.
- **1.11.** Following validation the statistics contained within this report may differ to those presented in the Quarterly Airfield Environment Report.





Sections 2-7

Sections 8-10

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2. Aircraft Movements

2.1. Total Aircraft Movements

An aircraft movement is the take-off or landing of any aircraft from the Airport. There were a total of 116,132 aircraft movements during 2006 (compared with 107,894 in 2005), an increase of 8%. This resulted in an average 318 movements per 24 hours (in comparison with 296 in 2005).

	Commercial						Non - Commercial							
	Cargo	Local Police	Passenger	Positio	oning	Total	Flying Club	Military	Official	Other	Private	Test & Training	Total	Total
				Other	STN		0.00							
Jan	170	211	6,256	312	30	6,979	33	0	10	48	1,379	56	1,526	8,505
Feb	160	244	5,797	366	48	6,615	40	0	0	64	1,470	79	1,653	8,268
Mar	115	276	6,547	450	65	7,453	73	4	2	58	1,577	75	1,789	9,242
Apr	104	280	6,582	376	47	7,389	100	1	9	61	1,416	86	1,673	9,062
May	92	249	7,294	558	58	8,251	46	2	13	43	1,904	111	2,119	10,370
Jun	99	281	7,418	597	79	8,474	48	2	0	49	2,152	85	2,336	10,810
Jul	193	298	7,709	651	54	8,905	88	0	8	56	2,120	61	2,333	11,238
Aug	231	206	7,573	489	48	8,547	41	0	7	70	1,554	90	1,762	10,309
Sep	257	298	7,565	551	38	8,709	38	0	13	65	2,125	126	2,367	11,076
Oct	145	260	7,176	543	56	8, 180	31	0	16	60	1,956	20	2,083	10,263
Nov	153	262	5,826	389	28	6,658	15	0	10	51	1,770	12	1,858	8,516
Dec	223	153	5,985	460	34	6,855	12	0	4	43	1,553	6	1,618	8,473
2006	1.942	3.018	81.728	5.742	585	93.015	565	9	92	668	20.976	807	23.117	116.132
Total	.,,,,,_	2,010		-,	500			Ľ			,0.0		,	
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







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 was based at LLA until $19^{\rm th}$ December 2006
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

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

		2005	2006
	Passenger	73,522	77,355
Aircraft Over 16 Tonnes	Cargo	1,842	1,718
	Other	12,374	14,682
	Passenger	3,483	4,373
Aircraft Under 16 Tonnes	Cargo	800	224
	Other	15,873	17,780
TOTAL		107,894	116,132

Aircraft Classifications (16 tonnes)





2.3. Aircraft Types

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Key – Jet, Helicopter, Propeller, Turbo-prop

Air Traffic Movements by propulsion type for the Months January to December 2006							
AEROSPATIALE CORVETTE	2	DASSAULT FALCON 20	62				
AIRBUS A300 FREIGHTER	665	DASSAULT FALCON 20/200	71				
AIRBUS A300-600 (PAX)	116	DASSAULT FALCON 2000	1,412				
AIRBUS A310-300	8	DASSAULT FALCON 2000 EX	143				
AIRBUS A319	5,162	DASSAULT FALCON 50	329				
AIRBUS A320-100/200	9,224	DASSAULT FALCON 900	1,152				
AIRBUS A321-100/200	397	DASSAULT FALCON 900EX	389				
AIRBUS A330-200	2	DASSAUT FALCON 50EX	32				
ANTONOV 72	10	DORNIER 328 JET (D328-300)	132				
AVROLINER RJ100	22	DOUGLAS DC8-71 (PAX)	6				
AVROLINER RJ70	2	EMBRAER RJ135	859				
BAC 1-11 300/400 Srs	4	EMBRAER RJ145	14				
BAC 1-11 500 Srs	2	EMBRAER RJ190	2				
BAE 146-100	392	FOKKER 100	538				
BAE 146-200	160	FOKKER 70	18				
BAE 146-300	74	GATES LEARJET 31	82				
BEECH 400 BEECHJET	458	GATES LEARJET 35	122				
BOEING 707-300	2	GATES LEARJET 36	4				
BOEING 727-100	66	GATES LEARJET 40	46				
BOEING 727-200	32	GATES LEARJET 45	1,222				
BOEING 737-200	66	GATES LEARJET 55	88				
BOEING 737-300	9,217	GATES LEARJET 60	832				
BOEING 737-400	16	GULFSTREAM	10				
BOEING 737-500	40	GULFSTREAM 2	42				
BOEING 737-700	30,742	GULFSTREAM 200	22				
BOEING 737-800	11,909	GULFSTREAM 2B	48				
BOEING 747-400	2	GULFSTREAM 3	379				
BOEING 757-200	4,741	GULFSTREAM 4	2,626				
BOEING 757-200 FREIGHTER	154	GULFSTREAM 400	30				
BOEING 767-200	246	GULFSTREAM 550	846				
BOEING 767-300	306	GULFSTREAM V	1.637				
BOEING BUSINESS JET (737-700)	332	HAWKER HORIZON RAYTHEON	8				
BOEING BUSINESS JET2 (737-800)	137	HS125-100/200/300	116				
BOMBADIER GLOBAL EXPRESS	1,144	HS125-1000	84				
CANADAIR CHALLENGER 300	231	HS125-400	2				
CANADAIR CHALLENGER 600	987	HS125-600	2				
CANADAIR CHALLENGER 601	118	HS125-700	587				
CANADAIR CHALLENGER 604	1,127	HS125-800	2.441				
CANADAIR CRJ100		IAI 1123/1124 WESTWIND	2				
CANADAIR CRJ200	214	IAI 1125 ASTRA JET/GLF 150	98				
CANADAIR CRJ700	2	IAI 1126 GALAXY	102				
CANADAIR CRJ900	4	ILYUSHIN IL76	2				
CANADAIR REGIONAL JET	22	L1011 TRISTAR 500	3				
CESSNA 500 CITATION I	50	LOCKHEED JETSTAR II	6				
CESSNA 525 CITATIONJET	611	MCD DOUGLAS DC9-82	6				
CESSNA 525A CITATIONJET 2	543	MCD DOUGLAS DC9-83	126				
CESSNA 550/551 CITATION 2/SP	2,014	MCD DOUGLAS MD87	28				
CESSNA 560 CITATION 5	309	MCD DOUGLAS MD90	14				
CESSNA 560XL CITATION EXCEL	2,131	MCDONNELL DOUGLAS MD11	8				





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

	_		
CESSNA 650 CITATION 3	212	MITSUBISHI MU300 DIAMOND	6
CESSNA 750 CITATION X	653	RAYTHEON 390 PREMIER 1	640
CESSNA CITATION ENCORE	10	ROCKWELL SABRELINER 65/75	6
CITATION SOVEREIGN	58	SINO SWEARINGEN SJ30-2	4
DASSAULT FALCON 10	12	YAKOVLEV 42	24
DASSAULT FALCON 10/100	32	Total	102,710
AEROSPATIALE AS350 ECUREUIL	140	AEROSPATIALE ATR42-200/300	287
AEROSPATIALE AS355 ECUREUIL 2	240	AEROSPATIALE ATR42-400	942
AEROSPATIALE AS365 DAUPHIN	28	AEROSPATIALE ATR42-500	222
AEROSPATIALE SA341 GAZELLE	2	AEROSPATIALE ATR72	3,303
AGUSTA A109	224	ANTONOV 12	12
BELL 206 JET RANGER	20	ANTONOV 26	6
BELL 222	30	BAE ATP	723
BELL 430 HELICOPTER	2	BAE JETSTREAM 31	12
EUROCOPTER EC120	16	BAE JETSTREAM 41	16
EUROCOPTER EC135*	3,032	BEECH 100 KINGAIR (MILITARY)	6
EUROCOPTER EC45	561	BEECH 1900	132
MCD-DOUGLAS MD902 EXPLORER	4	BEECH 1900D	2
ROBINSON R22	4	BEECH 200 KINGAIR	494
ROBINSON R44	10	BEECH 300 KINGAIR	6
SIKORSKY S76 SPIRIT	360	BEECH 350 SUPER KING AIR	24
SIKORSKY S92	8	BEECH 90 KINGAIR	64
WESTLAND SEAKING	4	BEECH 99	4
Total	4.685	CESSNA 425 CORSAIR	6
	,	CESSNA 441 CONQUEST	32
BEECH 55 BARON	4	CESSNA F406 CARAVAN	4
BEECH 58 BARON	2	DHC-8 (DASH 8)	4
CESSNA 182	2	DHC-8 (DASH 8) 300	4
CESSNA 208 CARAVAN 1	2	DHC-8 (DASH 8) 400	4
CESSNA 310	6	DORNIER 228	4
CESSNA 340	14	DORNIER 328	108
CESSNA 402	4	EMBRAER 120 BRASILIA	6
CESSNA 404 TITAN	4	FOKKER 50	10
CESSNA 414	2	FOKKER F27	6
CESSNA 421	34	L100/382B/C130 HERCULES	10
CESSNA LIGHT AIRCRAFT	6	LOCKHEED ELECTRA	6
CIRRUS DESGN CORP CIRRUS 20/22	6	PIAGGIO P180 AVANTI	32
DIAMOND STAR DA-40	4	PILATUS PC12	80
DIAMOND STAR DA-42	165	PIPER PA31T TURBO PROP	10
DOUGLAS DC6/6A/6B/6C	4	PIPER PA42 CHEYENNE 2/3	8
EXTRA EA-400	2	PIPER PA42 CHEYENNE 3/4	4
MOONEY M20J	137	SAAB 2000	34
PIPER PA23 APACHE/AZTEC	6	SAAB 340	2
PIPER PA27 APACHE/AZTEC	4	SHORTS 360	298
PIPER PA28 CHEROKEE	254	SOCATA TBM 700	98
PIPER PA31 NAVAJO	78	SWEARINGEN MERLIN 3	6
PIPER PA32 LANCE	140	SWEARINGEN METROLINER	52
PIPER PA34 SENECA	132	Total	7.083
PIPER PA46 MALIBU/MERIDIAN	8	Total	116 132
ROCKWELL COMMANDER 950	2		
SOCATA TB10 TOBAGO	611		
SOCATA TB20 TRINIDAD	21		

Total1,654* The Chiltern Air Support Police Helicopter Unit accounted for 3,018 flights of the Eurocopter EC135 movements and was responsible for 64% of total helicopter movements.





2.4. Passenger Statistics

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

A total of 9,435,064 passengers were handled at LLA during 2006: 8,671,732 on scheduled flights (92%) and 763,332 on charter flights (8%). This represents an overall increase in passengers of 3% compared with 2005.

		2005		2006			
	Charter	Schedule	Totals	Charter	Schedule	Totals	
Jan	28,558	549,711	578,269	28,372	595,331	623,703	
Feb	28,959	593,315	622,274	26,944	607,153	634,097	
Mar	38,353	702,636	740,989	29,893	703,293	733,186	
Apr	32,705	685,978	718,683	37,526	742,696	780,222	
May	84,115	718,927	803,042	80,019	747,489	827,508	
Jun	97,148	749,572	846,720	98,537	785,048	883,585	
Jul	109,556	803,261	912,817	109,877	851,670	961,547	
Aug	116,590	818,126	934,716	130,520	845,631	976,151	
Sep	109,665	754,358	864,023	109,189	789,147	898,336	
Oct	80,731	738,276	819,007	66,633	751,730	818,363	
Nov	27,996	624,947	652,943	22,153	614,984	637,137	
Dec	27,052	629,093	656,145	23,669	637,560	661,229	
Totals	781,428	8,368,200	9,149,628	763,332	8,671,732	9,435,064	



2.5. Average passenger load per passenger carrying aircraft

Average Passengers on Schedule and							
Charter Flights							
Year	Charter	Schedule	Total				
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				
2006	119.15	121.66	121.46				



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2.6. Passenger Breakdown by Region

		20	05			20	06	
	Domestic	EU	Non-EU	Total	Domestic	EU	Non-EU	Total
Jan	112,644	374,471	91,154	578,269	119,912	418,591	85,200	623,703
Feb	120,137	415,708	86,429	622,274	120,762	432,187	81,148	634,097
Mar	139,173	501,623	100,193	740,989	133,694	503,898	95,594	733,186
Apr	136,291	497,941	84,451	718,683	130,055	553,700	96,467	780,222
May	138,631	582,117	82,294	803,042	133,463	606,402	87,643	827,508
Jun	141,015	622,680	83,025	846,720	139,705	649,135	94,745	883,585
Jul	146,585	676,215	90,017	912,817	136,275	718,944	106,328	961,547
Aug	147,944	693,284	93,488	934,716	130,529	728,216	117,406	976,151
Sep	139,701	638,058	86,264	864,023	128,053	663,416	106,867	898,336
Oct	139,695	591,925	87,387	819,007	132,224	585,950	100,189	818,363
Nov	127,172	450,363	75,408	652,943	125,017	421,512	90,608	637,137
Dec	125,220	448,913	82,012	656,145	117,427	439,186	104,616	661,229
Totals	1,614,208	6,493,298	1,042,122	9,149,628	1,547,116	6,721,137	1,166,811	9,435,064

2.7. Movements by ten largest operators

Operator	Movements	%
EASYJET	44,485	56%
RYANAIR	10,208	13%
WIZZ AIR	6,244	8%
AER ARANN	4,232	5%
MONARCH AIRLINES	4,212	5%
THOMSONFLY LIMITED	2,865	4%
ATLANTIC AIRLINES LTD (NPT)	822	1%
FIRST CHOICE AIRWAYS LTD	799	1%
AJET AVIATION LTD	551	1%
BRITISH AIRWAYS	542	1%
Others	4,580	6%
TOTAL	79,540	100%

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



- EASYJET
- RYANAIR
- UWIZZ AIR
- AER ARANN
- MONARCH AIRLINES
- THOMSONFLY LIMITED
- ATLANTIC AIRLINES LTD (NPT)
- □ FIRST CHOICE AIRWAYS LTD
- AJET AVIATION LTD
- BRITISH AIRWAYS
- Others



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2.8. Movements and average seats by aircraft type

EASYJET AIRBUS A319 4,927 BOEING 737-300 8,740 BOEING 737-700 30,384 BOEING 757-200 356 MCD DOUGLAS DC9-83 58 Other 20 Total 44,485 RYANAIR BOEING 737-800 10,204 Other 44 Total 10,208 WIZZ AIR AIRBUS A320-100/200 6,235 Other 9 Total 9	Seats 156 148 149 234 172 189 150 189 176 189 176 189 176 189 176 189 176 180 178 50
EASYJET AIRBUS A319 4,927 BOEING 737-300 8,740 BOEING 737-700 30,384 BOEING 737-700 30,384 BOEING 757-200 356 MCD DOUGLAS DC9-83 58 Other 20 Total 44,485 RYANAIR BOEING 737-800 10,204 Other 44 Total 10,208 WIZZ AIR AIRBUS A320-100/200 6,235 Other 9 Total 9	156 148 149 234 172 189 150 189 176 189 176 189 176 189 176 189 176 189 176 180 50 50
BOE ING 737-300 8,740 BOE ING 737-700 30,384 BOE ING 757-200 356 MCD DOUGLAS DC9-83 58 Other 20 Total 44,485 RYANAIR BOE ING 737-800 10,204 Other 44 44 Total 44,000 44 WIZZ AIR AIRBUS A320-100/200 6,235 Other 9 9 Total 6,244 6,244	148 149 234 172 189 150 189 176 189 176 189 176 189 176 189 176 189 176 189 180 50 50
BOE ING 737-700 30,384 BOE ING 757-200 356 MCD DOUGLAS DC9-83 58 Other 20 Total 44,485 RYANAIR BOE ING 737-800 10,204 Other 44 44 Total 10,204 44 WIZZ AIR AIRBUS A320-100/200 6,235 Other 9 5 Total 6,244	149 234 172 189 150 189 189 189 189 189 189 189 189 189 189 176 189 189 189 189 189 189 189 180 178 180 50
BOE ING 757-200 356 MCD DOUGLAS DC9-83 58 Other 20 Total 444,485 RYANAIR BOE ING 737-800 10,204 Other 44 44 Total 10,204 10,204 WIZZ AIR AIRBUS A320-100/200 6,235 Other 9 5 Total 6,244	234 172 189 150 189 150 189 189 189 189 189 189 189 189 189 189 189 189 180 178 180 50
MCD DOUGLAS DC9-83 58 Other 20 Total 44,485 RYANAIR BOEING 737-800 10,204 Other 44 Total 10,204 Other 44 Total 10,204 Other 9 Total 10,208 WIZZ AIR AIRBUS A320-100/200 6,235 Other 9 Total 6,244	3 172 0 189 5 150 6 189 1 176 3 189 1 176 3 189 1 176 3 180 1 178 1 180 5 50
Other 20 Total 44,485 RYANAIR BOEING 737-800 10,204 Other 4 Total 10,208 WIZZ AIR AIRBUS A320-100/200 6,235 Other 9 Total 6,244	189 150 189 176 176 189 176 189 176 189 176 189 176 189 189 189 180 178 180 50
Total 44,485 RYANAIR BOE ING 737-800 10,204 Other 4 Total 10,208 WIZZ AIR AIRBUS A320-100/200 6,235 Other 9 Total 6,244	5 150 189 176 189 176 189 189 189 180 178 180 50
BOEING 737-800 10,204 Other 4 Total 10,208 WIZZ AIR AIRBUS A320-100/200 6,235 Other 9 Total 6,244	189 176 189 180 180 180 178 180 50 50 50
Other 4 Total 10,208 WIZZ AIR AIRBUS A320-100/200 6,235 Other 9 Total 6,244	176 189 180 180 178 180 180
Total 10,208 WIZZ AIR AIRBUS A320-100/200 6,235 Other 9 Total 6,244	3 189 5 180 9 178 4 180 4 50
WIZZ AIR AIRBUS A320-100/200 6,235 Other 9 Total 6,244	5 180) 178 180 50
Other 9) 178 180 50
Total 6.244	180
10.244	50
AER ARANN AEROSPATIALE ATR42-200/30 84	
AEROSPATIALE ATR42-400 923	49
AEROSPATIALE ATR72 3 219	69
Other f	65
Total 4 232	64
	. 04
	174
	. 174
	214
DOEING 757-200 1,904	
Other 3	313
	202
THOMSONFLY LIMITED BOEING 737-300 186	148
BOEING 737-800 847	189
BOEING 757-200 1,634	235
BOEING 767-200 170) 290
BOEING 767-300 20) 325
Other 8	3 237
Total 2,865	5 220
ATLANTIC AIRLINES LTD (NPT) AEROSPATIALE ATR42-200/30 156	i 50
BAE ATP 656	i 68
Other 10) 36
Total 822	2 64
FIRST CHOICE AIRWAYS LTD AIRBUS A320-100/200 778	3 180
BOEING 757-200 14	234
Other 7	' 256
Total 799	182
AJET AVIATION LTD BOEING 737-800 541	189
BOEING 757-200 8	235
Other 2	2 189
Total 551	190
BRITISH AIRWAYS BAE 146-100 388	88
BAE 146-200 141	100
Other 1.9	157
Total 542	2 93
Others Total 4.580	00
	+





2.9. Cargo tonnes & movements

	20	05	2006	
	Tonnes	Movements	Tonnes	Movements
Jan	1,804	311	1,052	264
Feb	1,891	302	1,294	252
Mar	2,254	331	958	214
Apr	2,167	341	864	210
May	1,989	350	846	199
Jun	2,160	358	938	213
Jul	2,066	341	1,967	301
Aug	1,724	335	1,936	349
Sep	2,162	336	2,780	376
Oct	2,449	357	1,627	257
Nov	1,750	304	1,572	246
Dec	1,329	284	2,652	298
Total	23,745	3,950	18,485	3,179

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	Scheduled Operator	Charter Operator
Aberdeen	easyJet	
Alicante	easyJet / Monarch Scheduled / Thomsonfly	Thomson
Almeria	Monarch Scheduled	
Amsterdam	easyJet	
Antalya		Thomas Cook
Arrecife	Monarch Scheduled	First Choice / Thomson / Thomas Cook
Athens	easyJet	
Barcelona	easyJet	
Basel	easyJet	
Belfast Intl.	easyJet	
Berlin Schonefeld	easyJet	
Bodrum		First Choice / Thomson/ Thomas Cook
Bordeaux	easyJet	
Burgas	Wizz Air	Thomson
Bremen	easyJet	
Brest	Ryanair	
Budapest	easyJet / Wizz Air	
Bucharest	Wizz Air	
Cagliari	easyJet	
Corfu		First Choice / Thomson / Thomas Cook
Dalaman		First Choice / Thomson / Thomas Cook
Dortmund	easyJet	
Dublin	Ryanair	
Dubrovnik	Thomsonfly	
Edinburgh	easyJet	
Faro	easyJet / Monarch Scheduled	First Choice / Thomson / Thomas Cook
Fez	Ryanair	
Fuerteventura		First Choice / Thomas Cook
Funchal		First Choice / Thomson/ Thomas Cook
Galway	Aer Arann	
Gdansk	Wizz Air	
Geneva	easyJet	
Gerona	Ryanair	Thomson
Gibraltar	Monarch Scheduled	
Glasgow	easyJet	
Grenoble	easyJet	
lbiza	easyJet / Monarch Scheduled	First Choice / Thomson / Thomas Cook
Inverness	easyJet	
Istanbul	easyJet	
Jersey	Thomsonfly	
Katowice	Wizz Air	
Kefalonia		First Choice / Thomson / Thomas Cook
Knock	Ryanair	
Kos		Thomson

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AIRPORT	Scheduled Operator	Charter Operator
Krakow	easyJet	-
Larnaca	Monarch Scheduled	First Choice / Thomson / Thomas Cook / XL Airways
Las Palmas	Monarch Scheduled	First Choice / Thomson / Thomas Cook
Lisbon	easyJet	
Ljubljana	Wizz Air	
Madrid	easyJet	
Mahon	Monarch Scheduled	First Choice / Thomson / Thomas Cook
Malaga	easyJet / Monarch Scheduled	Thomson
Malta	Ryanair	Thomson
Marrakech	Ryanair / Thomsonfly	
Milan Bergamo	Ryanair	
Monastir		First Choice / Thomas Cook/ Thomson
Murcia	Ryanair	
New York	Silverjet	
Nice	easyJet	
Nimes	Ryanair	
Ovda		Thomson
Palma	easyJet / Monarch Scheduled	First Choice / Thomson / Thomas Cook
Paphos	,	First Choice / Thomson / Thomas Cook
Paris-CDG	easyJet	
Poznan	Wizz Air	
Prague	Thomsonfly	
Reus	Ryanair	Thomson / Thomas Cook
Rhodes	,	Thomson / Thomas Cook
Rijeka	easyJet	
Rimini	easyJet	
Rome Ciampino	Ryanair	
Rovaniemi		First Choice
Salzburg		Thomson
Sharm-El-Sheik		Thomson / Thomas Cook
Sofia	Wizz Air	
Split	Wizz Air	
Tenerife	Monarch Scheduled	First Choice / Thomson / Thomas Cook
Thessalonika		Thomson
Turin	easvJet	
Warsaw	easyJet / Wizz Air	
Waterford	Aer Arann	
Zagreb	Wizz Air	
Zakvnthos		Thomson / Thomas Cook

Denotes new for 2007

For more information visit:- <u>www.london-luton.com</u>





3.1. New Routes (Scheduled)

2007 (seats sold in 2006)

Route	oute Country Launch Date		Airline	
Ibiza	Balearic Islands	24-May-07	Monarch Scheduled	
Ibiza	Balearic Islands	05-May-07	easyJet	
Jersey	Channel Islands	03-May-07	Thomsonfly	Μ
Almeria	Spain	03-May-07	Monarch Scheduled	
Dubrovnik	Croatia	01-May-07	Thomsonfly	
Larnaca	Cyprus	26-Mar-07	Monarch Scheduled	
New York*	USA	25-Jan-07	Silverjet	
Bucharest	Romania	15-Jan-07	Wizz Air	

2007				
AIRLINE	NEW ROUTES			
easyJet	1			
Monarch Scheduled	3			
Silverjet	1			
Thomsonfly	2			
Wizz Air	1			
TOTAL	8			

* 2nd daily rotation commences 02 July 07

2006

Route	Route Country		Country Launch Airline Date		Airline	
Prague	Czech Republic	03-Nov-06	Thomsonfly	All		
Marrakech	Morocco	03-Nov-06	Thomsonfly	W		
Marrakech	Morocco	01-Nov-06	Ryanair	ea		
Malta	Malta	31-Oct-06	Ryanair	Tho		
Fez	Morocco	31-Oct-06	Ryanair	Ry		
Newquay	UK	06-Jul-06	Aer Arann	Aeı		
Istanbul	Turkey	01-Jul-06	easyJet	Air T		
Rijeka	Croatia	30-Jun-06	easyJet	Т		
Bordeaux	France	29-Jun-06	easyJet			
Rimini	Italy	29-Jun-06	easyJet			
Lorient	France	15-May-06	Aer Arann	19 new		
Split	Croatia	02-May-06	Wizz Air	7 unpre		
Burgas	Bulgaria	02-May-06	Wizz Air	6 airline		
Ljubljana	Slovenia	01-May-06	Wizz Air			
Sofia	Bulgaria	01-May-06	Wizz Air			
Reims	France	28-Mar-06	Air Turquoise	X - ceased		
Zagreb	Croatia	27-Mar-06	Wizz Air			
Lisbon	Portugal	01-Mar-06	easyJet			
Brest	France	21-Feb-06	Ryanair			

2006			
AIRLINE	NEW ROUTES		
Wizz Air	5		
easyJet	5		
Thomsonfly	2		
Ryanair	4		
Aer Arann	2		
Air Turquoise	1		
TOTAL	19		

19 new scheduled routes 7 unprecedented new countries 6 airlines

X - ceased ops 19th July 2006







4. Runway Usage

The runway usage split (principally dictated by wind direction) during 2006 was 30% easterly and 70% westerly (compared with 29% / 71% for 2005).

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
2006	30%	70%
2005	29%	71%
2004	26%	74%
2003	37%	63%
2002	33%	67%
Average	31%	69%

Month	Easterly	Westerly
Jan	51%	49%
Feb	38%	62%
Mar	41%	59%
Apr	28%	72%
May	25%	75%
Jun	49%	51%
Jul	45%	55%
Aug	15%	85%
Sep	29%	71%
Oct	30%	70%
Nov	0%	100%
Dec	14%	86%
2006	30%	70%



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

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

	Day (0700-2300 local)		Day (0700-2300 local) Night (2300-070		-0700 local)
Year	Westerly	Easterly	Westerly	Easterly	
2006	66%	34%	71%	29%	
2005	67%	33%	69%	31%	
2004	79%	21%	77%	23%	
2003	68%	32%	67%	33%	
2002	63%	37%	64%	36%	
Average	69%	31%	70%	30%	





4.2. Day / Night Ratio of Movements

There were 8,719 night movements during 2006 (compared to 9,423 for 2005 a decrease of 7%), an average 24 movements per night (compared to 26 last year). The average ratio of total aircraft movements during 2006 was 92% day / 8% night (compared to 91% day / 9% night in 2005). It should be noted, however, that from 1st March until 30th June and 1st October until 30th November 2006, LLAOL undertook a runway resurfacing programme which involved night closures from 00:00 hrs to 05:45 hrs Tuesday through to Saturday mornings.

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

	Arrivals		Depai	rtures	Totals		
	Day	Night	Day	Night	Day	Night	Total
Jan	3,951	319	4,050	185	8,001	504	8,505
Feb	3,775	358	3,965	170	7,740	528	8,268
Mar	4,249	368	4,467	158	8,716	526	9,242
Apr	4,112	417	4,356	177	8,468	594	9,062
May	4,707	482	5,007	174	9,714	656	10,370
Jun	4,827	583	5,207	193	10,034	776	10,810
Jul	4,692	919	5,297	330	9,989	1,249	11,238
Aug	4,367	786	4,895	261	9,262	1,047	10,309
Sep	4,723	829	5,220	304	9,943	1,133	11,076
Oct	4,644	485	4,949	185	9,593	670	10,263
Nov	3,958	299	4,112	147	8,070	446	8,516
Dec	3,822	401	4,061	189	7,883	590	8,473
Total	51,827	6,246	55,586	2,473	107,413	8,719	116,132



6,000 4,000 2,000 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec





4.3. Annual Average Hourly Movements





4.4. Average Hourly Movements 7th Busiest Day of 2006 (14th July)

4.4.1. From the above two graphs it can be seen that the busiest hour for movements is between 18:00-19:00 along with 16:00-17:00 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.

		Clac	ton*	Com	pton	Olı	ney	Oth	er**	Hali	Total
		08	26	08	26	08	26	08	26	TICH	
	Day	668	626	781	748	485	498	54	69	121	4,050
Jan	Night	33	28	30	25	18	21	4	2	24	185
	Total	701	654	811	773	503	519	58	71	145	4,235
	Day	480	819	571	895	336	576	44	97	147	3,965
Feb	Night	25	41	19	23	10	20	4	1	27	170
	Total	505	860	590	918	346	596	48	98	174	4,135
	Day	558	825	730	949	414	648	72	108	163	4,467
Mar	Night	32	38	15	17	5	12	1	4	34	158
	Total	590	863	745	966	419	660	73	112	197	4,625
	Day	374	1,007	460	1,205	276	699	46	129	160	4,356
Apr	Night	29	53	12	30	4	15	0	1	33	177
	Total	403	1,060	472	1,235	280	714	46	130	193	4,533
	Day	386	1,186	445	1,570	254	800	54	138	174	5,007
Мау	Night	23	53	15	31	6	14	2	3	27	174
	Total	409	1,239	460	1,601	260	814	56	141	201	5,181
	Day	837	841	948	1,121	494	547	101	122	196	5,207
Jun	Night	47	36	26	26	10	3	2	2	41	193
	Total	884	877	974	1,147	504	550	103	124	237	5,400
	Day	779	977	987	1,203	433	535	92	114	177	5,297
Jul	Night	60	79	35	65	13	24	6	5	43	330
	Total	839	1,056	1,022	1,268	446	559	98	119	220	5,627
	Day	208	1,284	274	1,840	142	843	26	146	132	4,895
Aug	Night	14	74	12	90	3	40	0	5	23	261
	Total	222	1,358	286	1,930	145	883	26	151	155	5,156
	Day	502	1,223	652	1,466	306	743	49	115	164	5,220
Sep	Night	32	88	30	70	10	37	0	3	34	304
	Total	534	1,311	682	1,536	316	780	49	118	198	5,524
	Day	505	1,154	561	1,356	317	742	33	92	189	4,949
Oct	Night	26	58	14	28	10	15	1	3	30	185
	Total	531	1,212	575	1,384	327	757	34	95	219	5,134
	Day	0	1,305	0	1,634	0	915	0	116	142	4,112
Nov	Night	0	66	0	29	0	21	0	2	29	147
	Total	0	1,371	0	1,663	0	936	0	118	171	4,259
	Day	178	1,152	240	1,349	109	838	8	123	64	4,061
Dec	Night	8	74	7	46	7	27	0	3	17	189
	Total	186	1,226	247	1,395	116	865	8	126	81	4,250
Day Total		5,475	12,399	6,649	15,336	3,566	8,384	579	1,369	1,829	55,586
Night	Total	329	688	215	480	96	249	20	34	362	2,473
Total		5,804	13,087	6,864	15,816	3,662	8,633	599	1,403	2,191	58,059

 Clacton/Dover/Detling departures have been merged as the immediate flight routes follow the same path.
 This category relates to those aircraft that are not required to follow Noise Preferential Routes, such as Test/Training flights and the Flying Club.





4.6. Arrivals Route Analysis

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

		08	26	Heli	Total
	Day	1,974	1,862	115	3,951
Jan	Night	156	136	27	319
	Total	2,130	1,998	142	4,270
	Day	1,387	2,246	142	3,775
Feb	Night	135	193	30	358
	Total	1,522	2,439	172	4,133
	Day	1,669	2,423	157	4,249
Mar	Night	124	203	41	368
	Total	1,793	2,626	198	4,617
	Day	1,106	2,853	153	4,112
Apr	Night	121	258	38	417
	Total	1,227	3,111	191	4,529
	Day	1,181	3,362	164	4,707
Мау	Night	118	336	28	482
	Total	1,299	3,698	192	5,189
	Day	2,235	2,400	192	4,827
Jun	Night	325	212	46	583
	Total	2,560	2,612	238	5,410
Jul	Day	2,083	2,443	166	4,692
	Night	336	536	47	919
	Total	2,419	2,979	213	5,611
	Day	642	3,596	129	4,367
Aug	Night	122	635	29	786
	Total	764	4,231	158	5,153
	Day	1,265	3,305	153	4,723
Sep	Night	224	564	41	829
	Total	1,489	3,869	194	5,552
	Day	1,392	3,070	182	4,644
Oct	Night	137	313	35	485
	Total	1,529	3,383	217	5, 129
	Day	0	3,818	140	3,958
Nov	Night	0	267	32	299
	Total	0	4,085	172	4,257
	Day	548	3,208	66	3,822
Dec	Night	51	333	17	401
	Total	599	3,541	83	4,223
Day T	otal	15,482	34,586	1,759	51,827
Night	Total	1,849	3,986	411	6,246
Total		17,331	38,572	2,170	58,073





4.7. Flight routes and sample flight tracks

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

Figures 4.10 and 4.11 display actual radar flight data taken over a 24 hour period during summer 2006 for both westerly and easterly operations. Arriving traffic is shown in red with departures in green. A new easterly arrivals route was introduced in May 2006 following a lengthy planning and consultation process and is depicted by the red arrival tracks on Figure 4.10. Significant safety and environmental benefits have been delivered as a result of this airspace change. Benefits include a reduction in the population overflown on the easterly approach to the airport by approximately 200,000 residents. In addition, the arriving aircraft are able to adopt a 'Continuous Descent Approach' (CDA) which reduces both noise and fuel consumption.

Figures 4.12 and 4.13 show the same 24 hour periods as above, displaying the aircraft radar data in altitude bands of 1,000ft increments (up to 10,000ft above mean sea level). These radar tracks show a single mode of operation only i.e. easterly or westerly operations and include both arriving and departing aircraft.

Figures 4.14, 4.15 and 4.16 display aircraft track density plots for the summer period 16^{th} June – 15^{th} September 2006. A track density plot is a map which displays the pattern of aircraft flight tracks passing over the region around the Airport during a specified period. The system analyses the number of flights passing over each grid element of an array defined by the user.

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

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

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

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

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





4.8. Plan showing Easterly (08) flight routes







4.9. Plan showing Westerly (26) flight routes







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



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



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

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

4.14. Plot Density – 16th June – 15th September 2006 - Arrivals only

4.15. <u>Plot Density – 16th June – 15th September 2006 - Departures only</u>

4.16. Plot Density – 16th June – 15th September 2006 - Arrivals and Departures

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5. Noise Monitoring Data

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

The Leq contours for 2006 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

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

Data shows an increase in the total number of departure noise events recorded in 2006 compared to 2005 (from 40,356 to 44,053). Only 1 departure exceeded the 87dB(A) night-time noise limit and there were no daytime noise violations during 2006.

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 61% of daytime departures registering below 74dB(A). Only 494 daytime departures registered maximum noise levels above 80dB(A) in 2006, compared to 463 aircraft in this noise band during 2005. In 2006 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. During the night 97% of departures recorded maximum noise levels below 80dB(A), with 66% of night departures registering below 74dB(A). Only 41 night departures registered maximum noise levels above 80dB(A) during 2006, compared to 44 in this noise band during 2005. 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 2006, 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)									
	<70	70-73	74-76	77-79	80-83	84-87	88-91	92-94	>94	Total
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	TOLAT
January	487	1,600	869	168	15	15	2	0	0	3,156
February	511	1,278	1,109	268	22	7	3	0	0	3,198
March	467	1,562	1,173	251	16	17	2	0	0	3,488
April	335	1,381	1,398	314	35	10	4	0	0	3,477
May	353	1,322	1,425	276	45	12	3	0	0	3,436
June	610	2,113	1,189	170	38	11	2	0	0	4,133
July	586	2,136	911	99	19	11	1	0	0	3,763
August	344	1,761	1,567	258	24	7	4	0	0	3,965
September	519	2,288	1,023	111	56	14	2	0	0	4,013
October	462	2,206	1,187	121	25	20	2	0	0	4,023
November	214	1,479	1,232	126	20	7	2	0	0	3,080
December	451	1,529	719	97	12	8	1	0	0	2,817
% Total	12.5%	48.5%	32.4%	5.3%	0.8%	0.3%	0.1%	0.0%	0.0%	
Total	5,339	20,655	13,802	2,259	327	139	28	0	0	42,549

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)									
	<70	70-73	74-76	77-79	80-83	84-87	88-91	92-95	>95	Total
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	TULAT
January	36	45	17	0	0	0	1	0	0	99
February	27	49	20	4	1	0	0	0	0	101
March	30	31	15	8	3	0	0	0	0	87
April	15	52	33	16	1	0	0	0	0	117
May	21	35	30	10	2	2	0	0	0	100
June	33	58	19	8	1	0	0	0	0	119
July	52	83	41	14	5	0	0	0	0	195
August	24	73	65	20	8	1	0	0	0	191
September	41	91	53	15	8	1	0	0	0	209
October	33	59	19	2	3	1	0	0	0	117
November	11	27	20	10	2	0	0	0	0	70
December	28	41	25	4	1	0	0	0	0	99
% Total	23.3%	42.8%	23.7%	7.4%	2.3%	0.3%	0.1%	0.0%	0.0%	
Total	351	644	357	111	35	5	1	0	0	1,504





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 other major London airports.

For Day Flights

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

>94 dB(A) 400% surcharge

For Night Flights

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

- >87 91 dB(A) 300% surcharge
- >91 95 dB(A) 500% surcharge
- >95 dB(A) 600% surcharge

5.5.1. Daytime Noise Violations during 2006

There were no daytime noise violations in 2006, with the last daytime infringement in August 2003.

5.5.2. Night Noise Violations during 2006

There was 1 violation of the night noise limit in 2006 (details below), in line with 1 in 2005.

Date / Time (Local) Aircraft Type		Noise Level	Penalty
20/01/2006 04:23	B727-200 (Executive Jet)	89dB(A)	300% of runway charge







6. Noise Contours

6.1 <u>Leq</u>

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 (16^{th} June – 15^{th} 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 2006 16-hour daytime Leq contours show a similar contour area for the higher Leq noise bands compared with 2005 i.e. 63-72 dB(A) and a small increase for the lower noise bands, 57-60 dB(A). The footprint has extended marginally at the extremities of each contour. An 11% increase in contour area from 13.46km² in 2005 to 14.90km² in 2006 has resulted in a 13% increase in the number of dwellings affected with 1,232 total dwellings in 2006 compared with 1,095 in 2005. The total population affected also increased by 13% from 2,631 to 2,969. The 2006 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 2006 8-hour night Leq contours show an increase in the area covered compared with 2005, from 26.59 km^2 to 29.20 km^2 . The increase in contour shape is at the eastern extremity, which is easterly departures and westerly arrivals, along with the westerly departures lobe to the south west. The increase in the contour footprint corresponds with an increase of 12% in the number of dwellings affected during the night period, from 3,243 in 2005 to 3,616 in 2006. There has also been a 9% increase in the number of people affected, from 7,508 to 8,187. 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 2006

- 6.2.1. Work has been completed on the production of the annual noise contours for LLA for the summer 2006 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:

L _{Aeq, 16 hour} Day time	1984 (km²)	1999 (km²)	2005 (km²)	2006 (km²)	Difference 2005-2006 (km²)
>72	1.63	1.5	0.84	0.94	+0.1
>69	2.80	2.5	1.34	1.51	+0.17
>66	4.86	4.4	2.33	2.65	+0.32
>63	9.1	7.3	4.25	4.82	+0.57
>60	17.18	11.8	7.68	8.56	+0.88
>57	31.52	19.6	13.46	14.90	+1.44

Contour areas (Daytime)

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:

L _{Aeq, 8 hour} Night time	1984 (km²)	1999 (km²)	2005 (km²)	2006 (km²)	Difference 2005-2006 (km²)
>72	0.79	1.1	0.39	0.40	+0.01
>69	1.39	1.8	0.57	0.59	+0.02
>66	2.42	3.0	0.87	0.93	+0.06
>63	4.01	5.2	1.44	1.56	+0.12
>60	7.06	8.3	2.54	2.80	+0.26
>57	13.05	13.2	4.69	5.17	+0.48
>54	24.48	21.6	8.60	9.47	+0.87
>51	44.92	36.0	15.34	16.69	+1.35
>48	85.04	60.6	26.59	29.20	+2.61

Contour areas (Night-time)

- 6.2.4. The modal split for summer 2006 was 68% westerly / 32% easterly compared with 69% / 33% W/E in summer 2005.
- 6.2.5. In terms of movements, there was an increase in the total daytime movements from 24,842 to 27,450 and an increase in night-time movements from 3,599 to 3,921 (over the 92 day contour period).





6.3 <u>Contour Population Counts</u>

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) Contour data is provided to LBC and Hertfordshire County Council for validation purposes.

6.4 Day-Time Contour Results

L _{Aeq, 16 hour} Day time	2005 Dwellings	2005 Population	2006 Dwellings	2006 Population
>72	0	0	0	0
>69	0	0	0	0
>66	4	10	10	23
>63	22	53	38	94
>60	450	1,074	522	1,317
>57	1,095	2,631	1,232	2,969

6.5 Night-Time Contour Results

L _{Aeq, 8hour} Night time	2005 Dwellings	2005 Population	2006 Dwellings	2006 Population
>72	0	0	0	0
>69	0	0	0	0
>66	0	0	0	0
>63	0	0	0	0
>60	5	12	13	31
>57	130	315	138	361
>54	586	1,408	610	1,532
>51	1,223	2,935	1,436	3,371
>48	3,243	7,508	3,616	8,187

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) Leg Contours











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









LONDON LUTON

6.8 Annual Day Noise Contours 2006







6.9 Annual Night Noise Contours 2006







6.10 Annual Day Noise Contours 2005







6.11 Annual Night Noise Contours 2005







6.12 <u>Quarterly Night Noise Contours</u>

6.12.1. 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.

6.13 Night Noise Contour Results (km²)

L _{Aeq} , 8hr Night	Jan - Mar 2005	Jan – Mar 2006	Apr – Jun 2005	Apr – Jun 2006	Jul – Sep 2005	Jul – Sep 2006	Oct - Dec 2005	Oct - Dec 2006
>72	0.34	0.33	0.40	0.35	0.39	0.41	0.32	0.33
>69	0.50	0.49	0.59	0.52	0.57	0.61	0.49	0.49
>66	0.74	0.72	0.88	0.78	0.87	0.95	0.73	0.73
>63	1.17	1.13	1.43	1.25	1.45	1.61	1.17	1.17
>60	1.98	1.88	2.49	2.17	2.57	2.90	2.02	2.05
>57	3.57	3.34	4.57	3.96	4.73	5.37	3.68	3.76
>54	6.52	6.13	8.35	7.30	8.65	9.74	6.76	6.82
>51	11.64	10.99	14.81	13.05	15.30	17.01	12.11	11.90
>48	20.36	19.39	25.74	23.25	26.64	29.96	21.05	21.24
W/E Split (%)	65/35	55/45	70/30	63/37	70/30	73/27	75/25	83/17

6.14 Night Noise Movements by INM Aircraft Type

Aircraft Type	Jan – Mar 2005	Jan – Mar 2006	Apr - Jun 2005	Apr – Jun 2006	Jul – Sep 2005	Jul – Sep 2006	Oct - Dec 2005	Oct - Dec 2006
727100	3	1	3	2	3	2	0	1
727200	0	1	2	0	0	2	1	0
737300	318	146	328	261	524	199	271	21
737400	1	2	2	0	1	1	1	0
737700	519	524	759	751	659	1018	460	687
737800	442	470	569	600	582	662	556	572
737200	0	0	3	1	2	4	1	1
757RR	228	216	424	253	482	500	355	145
A300	56	20	92	29	119	140	52	76
A320	72	111	91	183	179	314	94	160
A321	10	4	26	3	21	6	9	46
A319	24	7	7	27	12	70	18	25
BAE146	3	0	5	0	0	0	2	1
767300	11	10	11	12	15	0	11	9
767JT9	2	3	3	4	62	52	30	5
CL600	69	69	119	103	111	151	100	114
CVR580	101	0	131	0	120	0	2	0
LEAR35	105	98	175	129	173	202	111	124
SD330	126	31	114	3	119	34	55	40
Other	273	408	410	411	377	751	492	408
Total	2363	2121	3274	2772	3561	4109	2621	2435





6.15 <u>Quarterly Night Noise Contours 2006 Jan – Mar</u>







6.16 Quarterly Night Noise Contours 2006 Apr – Jun







6.17 Quarterly Night Noise Contours 2006 Jul - Sep







6.18 Quarterly Night Noise Contours 2006 Oct - Dec







7. Complaints

7.1 Total Complaints relating to LLA aircraft operations

	2005	2006
Total No. of Complaints relating to LLA aircraft operations	718	1,637
No. of Complainants	364	718
No. of Events (eliciting a complaint)	1,373 <i>(6</i> 82*)	2,988 (2,199**)
Average No. of Complaints per Complainant	2	2.3
Average No. of Events per Complainant	3.8 (1.9*)	4.2 (3.1 **)
Average No. of Events per Complaint	1.9 (<i>0.9*</i>)	1.8 (1.3 **)
No. of Aircraft Movements per Complaint	150	71
No. of Aircraft Movements per Event	79 (158*)	39 (53)

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

 Figures excluding 789 events, reported by 3 individuals in Ayot St Lawrence, Hemel Hempstead & Tring.

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

- 7.1.1. During 2006 a total of 1,637 complaints relating to LLA aircraft operations were received by the Airfield Environment Office, compared with 718 in 2005.
- 7.1.2. A further 192 complaints not attributable to LLA traffic (primarily to/from London Heathrow Airport) were received throughout 2006, compared with 93 last year. 50 of these complaints (26%) related to non-LLA helicopters operating to/from other airfields.
- 7.1.3. A total of 718 complainants reported concerns to the Airfield Environment Office during the year, in comparison with 364 in 2005.
- 7.1.4. Within the 1,637 complaints received during the year, a total of 2,988 events (eliciting a complaint) were listed, compared to 1,373 events in 2005 although it should be noted that 48% of reported events in 2006 (789) were received from just 3 individuals, one in Ayot St Lawrence (292), one in Hemel Hempstead (210) and one in Tring (287).





7.2 Monthly complaint statistics

		Events	
		(eliciting a	
	Complaints	complaint)	Complainants
Jan	66	113	47
Feb	39	39	30
Mar	69	64	48
Apr	105	140	65
May	120	189	85
Jun	215	151	424
Jul	386	762	264
Aug	149	419	112
Sep	193	227	131
Oct	150	366	93
Nov	63	87	35
Dec	82	158	49
Totals	1,637	2,988	718*

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





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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	1019	301	91	1411
Frequency	217	22	30	269
Low-Flying	196	16	10	222
Off Track	209	9	2	220
Safety	9	0	0	9
Air Quality	3	0	0	3

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

Bonortad Concorna	No.of	% of Total
Reported Concerns	Complaints	Complaints
Deparatures - Easterly	409	25%
Departures - Westerly	340	21%
Arrivals - Easterly	287	18%
Frequency/Gen. Disturbance	192	12%
Helicopter-Private	132	8%
Arrivals - Westerly	81	5%
Helicopter-Police	67	4%
Engine Ground Runs	44	3%
Go-arounds	34	2%
Ground Noise	25	2%
Alleged Air Prox*	9	1%
Weather Avoidance	8	0.5%
Training Flights	4	0.2%
Air Quality	2	0.1%
Light Aircraft	1	0.1%
Military Flight	1	0.1%
Positioning Flight	1	0.1%
Total	1637	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 398 reported complaints involving night operations accounted for 24% of all complaints received in 2006 (in comparison with 27% in 2005).
- 7.4.2. Within the 340 complaints concerning westerly departures 238 were of a general nature, 56 to specific aircraft following the Dover/Detling/Clacton route, 29 to aircraft on the Olney 1B route and 17 related to aircraft on the Compton route.
- 7.4.3. Whilst 100 of the 287 complaints concerning easterly arrivals reported general disturbance, 187 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 87% of complaints and in 17% of complaints the **frequency** of operations was reported. Concerns of aircraft flying **low** were reported in 14% of complaints, and 13% 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 1,637 complaints relating to LLA aircraft operations registered during the year 728 complaints (44%) were clearly correlated to a specific aircraft type although many complaints were of a general nature.

7.6 Complaints by Aircraft Type

Aircraft Type*	No. of correlated complaints	% of Total complaints	Annual No. of Movements of Aircraft Type	Movements of Aircraft Type per correlated complaint
Helicopter (Private)	132	8%	1,667	13
A300 (MNG Cargo/DHL/Monarch)	97	6%	781	8
B757 (DHL/Thomsonfly/Monarch)	75	5%	4,895	65
GLF2/GLF3 Private Jets	69	4%	501	7
Helicopter (Police)	67	4%	3,018	45
B737-700 (easyJet)	52	3%	30,742	591
A320 (Monarch & Wizzair)	33	2%	9,224	280
B737-300 (easyJet)	22	1%	9,217	419
MD80 Private Jets/easyJet Sub Charter	20	1%	174	9
B737-800 (Ryanair/Thomsonfly/AJet)	18	1%	11,909	662
B767 (Thomsonfly/Private Jet)	17	1%	552	32
A319 (easyJet)	17	1%	5,162	304
B727 Private Jets	15	1%	98	7
BAC1-11 Private Jets	10	1%	6	1
Light Aircraft	1	0.1%	1,654	1654
Other Cargo Operations	27	2%	1,116	41
Other Passenger Operations	15	1%	12,469	831
Other Private Aircraft	41	3%	20,272	494
Other Aircraft Types	0	0%	2,675	n/a
Total	728	44%	116,132	160**

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

** This is the total number of aircraft movements per correlated complaint i.e. 116,132 movements / 728 correlated complaints = 160





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	Edlesborough	2	3	2	1.0	1.5
Aley Green	4	5	3	1.3	1.7	Eggington	1	0	1	1.0	0.0
Ardeley	2	0	2	1.0	0.0	Ellesborough	1	1	1	1.0	1.0
Astrope	1	0	1	1.0	0.0	Flamstead	35	83	17	2.1	4.9
Ayot St Lawrence	72	302	3	24.0	100.7	Flitton	29	21	13	2.2	1.6
Barton-le-Clay	4	0	3	1.3	0.0	Flitwick	1	0	1	1.0	0.0
Bassingbourn	1	1	1	1.0	1.0	Gaddesden Row	2	3	1	2.0	3.0
Bendish	5	3	3	1.7	1.0	Great Brickhill	6	6	3	2.0	2.0
Berkhamsted	1	0	1	1.0	0.0	Great Offley	1	1	1	1.0	1.0
Bierton	20	103	2	10.0	51.5	Gubblecote	10	7	3	3.3	2.3
Blackmore End	14	8	8	1.8	1.0	Harlington	5	0	5	1.0	0.0
Breachwood	34	26	15	2.2	17	Harpenden	347	448	114	3.0	3.9
Green		20	15	2.3	1.7	Hastoe	2	2	1	2.0	2.0
Buckland	2	0	2	1.0	0.0	Heath & Reach	3	50	1	3.0	50.0
Buntingford	1	0	1	1.0	0.0	Hemel	32	215	5	64	43.0
Burcott	2	2	1	2.0	2.0	Hempstead	02	210		0.7	40.0
Caddington	12	8	12	1.0	0.7	Hitchin	31	118	12	2.6	9.8
Campton	1	1	1	1.0	1.0	Horton	4	6	1	4.0	6.0
Cheddington	10	9	6	1.7	1.5	Regis	1	0	1	1.0	0.0
Chesham	1	3	1	1.0	3.0	lvinghoe	4	8	4	1.0	2.0
Chiltern Green	8	12	3	2.7	4.0	Ivinghoe Aston	2	3	2	1.0	1.5
Ciophili			2 1	1.0	1.0	Kensworth	17	18	11	1.5	1.6
Codicata	12	1	7	1.0	1.0	Kimpton	97	187	22	4.4	8.5
Cottored	13	4	1	1.9	0.0	King's Walden	14	12	4	3.5	3.0
Crafton	4	1	3	1.3	0.0	Kinsbourne Green	20	8	12	1.7	0.7
Cromer	1	0	1	1.0	0.0	Knebworth	6	1	6	1.0	0.2
Datchworth	2	0	2	1.0	0.0	Langley End	1	0	1	1.0	0.0
Diamond End	1	1	 1	1.0	1.0	Leighton	10	6	6	17	10
Dunstable	4	3	4	1.0	0.8	Buzzard		0	0	1.1	1.0
Dunton	2	3	1	2.0	3.0		ેં ∡	2	2	1.0	1.0
Eaton Bray	12	14	4	3.0	3.5		1	U	1	1.0	0.0

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Location	Complaints	Events* (eliciting a complaint)	Complainants	Average complaints per complainant	Average Events per Complainant	Location
Little Gaddesden	32	44	14	2.3	3.1	St Paul' Walden
Long Marston	7	0	6	1.2	0.0	Stanbrid
Lower Gravenhurst	3	21	1	3.0	21.0	Steeple Morden
Luton	108	108	68	1.6	1.6	Stevena
Markyate	26	34	16	1.6	2.1	Stewkle
Marsworth	1	0	1	1.0	0.0	Stotfold
Mentmore	18	40	5	3.6	8.0	Studhar
Milton Keynes	2	2	2	1.0	1.0	Tebwor
Mursley	1	0	1	1.0	0.0	Tewin V
Pepperstock	13	14	4	3.3	3.5	Todding
Peters Green	11	11	6	1.8	1.8	Tottern
Pimlico	3	3	1	3.0	3.0	Tring
Pitstone	9	6	8	1.1	0.8	Watton-
Preston	23	19	6	3.8	3.2	Stone
Redbourn	17	24	12	1.4	2.0	Weston
Ringshall	5	9	1	5.0	9.0	Wheath
Royston	3	1	3	1.0	0.3	stead
Rushden	1	0	1	1.0	0.0	Whipsn
Sandon	2	1	2	1.0	0.5	Whitwe
Sharpenhoe	2	0	2	1.0	0.0	Wiggint
Shefford	1	0	1	1.0	0.0	Wilston
Silsoe	1	0	1	1.0	0.0	Wing
Slapton	44	168	13	3.4	12.9	Wingray
Slip End	38	80	12	3.2	6.7	Woodsi
Soulbury	1	0	1	1.0	0.0	Totals
St Albans	7	2	7	1.0	0.3	

Location	Complaints	Events* (eliciting a complaint)	Complainants	Average complaints per complainant	Average Events per Complainant
St Paul's Walden	3	2	2	1.5	1.0
Stanbridge	7	30	2	3.5	15.0
Steeple Morden	1	0	1	1.0	0.0
Stevenage	21	14	15	1.4	0.9
Stewkley	2	4	2	1.0	2.0
Stotfold	2	0	2	1.0	0.0
Studham	20	57	7	2.9	8.1
Tebworth	5	0	3	1.7	0.0
Tewin Wood	5	2	4	1.3	0.5
Toddington	35	2	26	1.3	0.1
Totternhoe	2	3	2	1.0	1.5
Tring	15	288	5	3.0	57.6
Watton-at- Stone	1	1	1	1.0	1.0
Welwyn	8	6	7	1.1	0.9
Westoning	1	0	1	1.0	0.0
Wheathamp- stead	46	45	25	1.8	1.8
Whipsnade	1	0	1	1.0	0.0
Whitwell	133	208	49	2.7	4.2
Wigginton	1	1	1	1.0	1.0
Wilstone	3	0	3	1.0	0.0
Wing	2	3	1	2.0	3.0
Wingrave	6	5	5	1.2	1.0
Woodside	10	8	7	1.4	1.1
Totals	1637	2988 2199**	718	2.3	4.2 3.1**

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

** Figures excluding 789 events, reported by three individuals in Ayot St Lawrence (292), Hemel Hempstead (215) and Tring (287).





7.8 Location of Complaints







7.9 Method of Complaint Receipt

How Received	% of Total Complaints
E-mail	55.8%
Telephone	41.2%
Fax	1.8%
Letter	1.2%

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 <u>www.london-luton.co.uk</u> 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 socio-economic benefits to Luton as a whole and to the sub-region. A large number of businesses are based in Luton due to the presence of the Airport. Thus, any analysis of the Airport's impact upon the locality needs to contain an economic perspective, and this includes employment. A survey of employers within and around the Airport boundary has been conducted, the results of which are summarised below.

8.2 <u>Methodology</u>

- 8.2.1. Contrary to previous years, the majority of survey administration was undertaken by the Airport this year, with all analysis being undertaken by the Research and Intelligence Team at LBC. A questionnaire (compiled by the Borough Council in conjunction with the Airport) was sent out to companies at the Airport with a covering letter signed by the Airport Managing Director. Phrasing of some key questions in the survey was altered in an attempt to increase the response rate this year.
- 8.2.2. The Research and Intelligence Team set up a web-based version of the questionnaire, the link to which was given at the top of the hard copy version. A reminder letter was sent out approximately one month after the original to those businesses that had not responded by this date. LLA made direct contact with some companies in order to encourage them to respond to the survey if they had not already done so.
- 8.2.3. The questionnaire asked about total employment, the gender and full/part time split of workers, the approximate proportion of workers that lived in Luton, and the principal business activity of the firm. Unlike previous years, the gender and full/part time split were asked for separately (rather than asking for male full time workers, female full time workers, etc) because it was felt this would make responding to the survey easier and thus result in a higher response rate. 70 valid responses were received this year, from a total of 110 companies surveyed¹. This represents a response rate of 64%.

Year	Response Rate
2001	60.4%
2002	60.0%
2003	65.0%
2004	55.0%
2005	(Survey not undertaken by LBC)
2006	64.0%

Table 1: Response Rates

- 8.2.4. Unfortunately, responses via the web-based survey were very low; only one firm responded by this means
- 8.2.5. 43% of firms responding in 2006 responded in 2004.

8.3 Total Employment

8.3.1. An indication of the level of employment and changes in employment over time, are important to the assessment of the economic impact of the Airport. The following tables show total employment figures at and around the Airport for those companies who responded to the survey.

¹ 75 responses were received in total but five did not identify the company from which they were sent. For analysis purposes these have been treated as non-responses to ensure double counting did not occur when using the Inter-Departmental Business Register to calculate an imputed employment figure.





- 8.3.2. Table 2 shows the total employment figure for the 70 companies that responded to the survey. Note that because not all companies responded, including one of the major airlines, the employment figure shown here is a significant underestimate of the true figure of total employment at and in the vicinity of the Airport. All tables show employment by industrial sector, which was self-classified by the companies themselves in the majority of cases.
- 8.3.3. To avoid disclosure and identification of individual companies' employment figures, it has been necessary to suppress figures where there are less than three companies in a sector and where employment within those categories is below 50 employees. This is denoted by #.

Table 2: Total Employment

Sector	Total Employment
Forwarding of Freight	80
General Public Service Activities	#
Hotels and Restaurants	163
Human Resources LLA	493
Non Scheduled Passenger Air Transport	79
Other Supporting Air Transport Activities	523
Provision of Passenger Car Parking	#
Public (Scheduled) Passenger Air Transport	1,988
Renting of Automobiles	92
Retail Trade	285
Tour Operators	#
Travel Agencies	#
Wholesale of Petroleum Products	#
Miscellaneous (Airline/Aviation Related)	211
Miscellaneous (Not Airline/Aviation Related)	137
TOTAL EMPLOYMENT	4,267

8.3.4. There were a further 116 employees whose employment was managed by the businesses above or were contractors who work at the Airport for the majority of the year taking the overall total to **4,383**.

8.4 Employment Changes 2004-2006

- 8.4.1. The tables below illustrate changes in industry sectors between 2004 and 2006.
- 8.4.2. The data used in Table 3 is that received from those businesses that responded to both the 2004 *and* the 2006 survey. This represents 32 firms. This analysis gives an indication of employment change at the Airport over time.

Table 3 – Changes in Employment 2004-2006 for the 32 companies that responded to both the 2004 and 2006 surveys

Sector	2004	2006	% Change 2004-2006
Transport, Storage and Communication	513	566	10.3%
Public Administration and Defence	80	84	5.0%
Miscellaneous – Airline/Aviation Related	94	105	11.7%
Miscellaneous – Non Airline Related	101	110	8.9%
LLAOL	431	493	14.4%
Wholesale and Retail Trade	147	176	19.7%
TOTAL	1,366	1,534	12.3%



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- 8.4.3. It is important to note that the table depicts changes in employment *only in the companies who responded to both the 2004 and 2006 survey*, and *not* the changes in employment for all businesses in the vicinity of the Airport. It is illustrative only of the changes over time in the 32 businesses that responded to both surveys.
- 8.4.4. Of these 32 companies, 23 (72%) have increased their level of employment between 2004 and 2006. Three (9%) saw no change, and the remaining 6 (19%) employ fewer employees in 2006 than in 2004.

8.5 Employment By Gender

8.5.1. Table 4 illustrates breakdowns by gender and full/part time work from those companies that responded to this year's survey. The split of male: female employment is similar to that found in 2004. In 2006 men accounted for 57% of employment at the Airport, and women 43%. As would be expected, full time employment predominates, with 82% of all people employed by the companies that responded to the survey being employed full time, with the remaining 18% working part time.

Table 4 – Employment by gender and full/part time

	Males	Females	Full Time	Part Time	Total
Hotels/Restaurants	87	76	131	32	163
LLAOL	355	138	459	34	493
Miscellaneous - Non Airline Related	98	39	125	12	137
Miscellaneous - Airline/Aviation Related	147	64	192	19	211
Public Administration and Defence	50	34	68	16	84
Transport, Storage & Communications	1,559	1,301	2,290	570	2,860
Wholesale and Retail Trade	115	204	236	83	319
Total	2,411	1,856	3,501	766	4,267
% of total employment (4,267)	57%	43%	82%	18%	100%

8.6 Percentage Of Employees Who Live In Luton

8.6.1. Companies that responded to the survey provided an estimate of the proportion of their employees who lived in Luton. The results are shown in Table 5.

Table 5 – Employees Living in Luton by Sector

	Average % of Employees Living in Luton	Average Number of Employees Living in Luton
Hotels/Restaurants	90%	140
LLAOL	70%	360
Miscellaneous - Non Airline Related	60%	40
Miscellaneous - Airline/Aviation Related	50%	80
Public Administration and Defence	50%	40
Transport, Storage & Communications	50%	1,460
Wholesale and Retail Trade	80%	200
TOTAL	60%	2,320

Note: All figures in Table 5 are rounded to the nearest 10

8.6.2. Firms within the Hotels/Restaurants category had the highest percentage of employees who lived in Luton (an average of 89%), and firms within the Public Administration and Defence, and Transport, Storage and Communications sectors had the lowest (an average of 49% each). The average percentage of employees living in Luton for the companies who responded was 64%, slightly higher than the 2004 figure of 58%.







8.7 Total Employment At LLA

- 8.7.1. Imputed figures for those companies that did not respond to the questionnaire have been used to supplement the survey data in order to provide an estimate of total employment at the Airport.
- 8.7.2. This section provides an estimate of total employment at and around the Airport based on
 - Data from those companies that responded to the survey
 - Entries on the Inter-Departmental Business Register (IDBR) 2006, and
 - Estimates of employment for those companies that neither responded to the survey nor had an entry on the IDBR
- 8.7.3. The IDBR allows total employment figures to be obtained for some of those non-responding companies. Of the companies on the original mailing list that did not return a questionnaire, there were entries on the IDBR for 17 of these companies. This adds 2,700 employees at the Airport to the total employment figure obtained from the questionnaire.
- 8.7.4. For the 16 companies that did not respond and were also not found on the IDBR, these companies were assigned an estimated employment figure based on the average employment of those companies with the same SIC that responded to this year's survey. In total, these companies are estimated to employ 800 people.
- 8.7.5. Combining the imputed figure from the IDBR of 2,700, and the estimated figure for the 16 companies not found on the IDBR of 800 with the 4,267 employees from the responses to the survey, this gives an overall estimated total employment figure at and around the Airport of **7,700** people.

8.8 Conclusion

- 8.8.1. As stated in the introductory paragraphs, reporting of the results of this year's survey has been restricted to direct responses from the questionnaire, with an imputed figure included for those companies known not to have responded to the survey. Overall, 7,700 people are estimated to work at or around the Airport site.
- 8.8.2. Although there was an increase in the response rate compared to that in 2004, several of the larger companies known to be located at the Airport did not respond to the survey. Thus a key contribution to total employment at the Airport has not been directly obtained. The analysis by industry given in this report should consequently be considered as an indication of the breakdown of employment in and around the Airport rather than the actual situation.
- 8.8.3. Reasons for the poor response may be one or more of the following: (a) that the information requested is too difficult for the firms to obtain; (b) that the questionnaire is not reaching the right people; and/or, (c) that there is a lack of interest in the study. Whatever the reason(s) however, because a 100% response rate has not been achieved, it is only possible to estimate, as rigorously as is possible, the total level of employment at LLA.





9. Surface Access

9.1 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).

9.2 Road Traffic

- 9.2.1. The summer road count for 2006 (Figure 9.5) shows decreases in traffic 12hr/5day flows on most of the 7 monitored roads except Frank Lester Way and Lower Harpenden Road (latter estimated). Whereas, for the 24-hour full week (24/7), the traffic flows picture shows increases. Again there is an increase on Frank Lester Way but also increases on Airport Way, Vauxhall Way (N), Eaton Green roads (and marginally on London Road) and Lower Harpenden Road (latter estimated), serving the airport. (NB data was not available for Lower Harpenden Road due to engineering works and on Health and Safety grounds and so estimated 2006 figures are pro rata 2004/06 trend).
- 9.2.2. The winter count for 2006/07 picture is mixed with increases in 12/5 flows except for Airport Way, Vauxhall Way North and Vauxhall Way South which all decreased. By far the biggest change is an increase on London Road. This is mirrored in 24/7 flows with a similar pattern of increases (particularly London Road) but again with the exception of Airport Way, Vauxhall Way North and Vauxhall Way South which experienced decreases. Please note, due to East Luton Corridor engineering operations, data was unobtainable on Airport Way for half of 1 weekday and on Health and Safety grounds was totally unobtainable for Vauxhall Way North. Therefore, estimates have been used to fill the gaps based on pro rata trend 2005/06 for the missing data sets.

9.3 Public Transport Services

9.3.1. 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 2006 and also in the number of services for winter 2006/07. This can in part be attributed to First Capital Connect taking over the franchise to run the train service from Thameslink. The outcomes of this have included timetable changes and changes in train formation to combat the problems of overcrowding, changes in train paths and a shortage of rolling stock. A direct comparison with 2004 summer and winter figures is not possible because of disruption due to the Channel Tunnel rail works which meant 3 monthly timetables in 2003/04.

Number of services per week 7 days	Summer 2004 23 May*	Summer 2004 11 Sept	Winter 2004/05 Dec-May*	Summer 2005	Winter 2005/06 Dec-May*	Summer 2006	Winter 2006/07
Direction							
Northbound Southbound	939 901	870 853	868 854	857 811	858 818	853 807	857 808
TOTAL	1,840	1,723	1,722	1,668	1,676	1,660	1,665

TRAIN SERVICES FROM LUTON AIRPORT PARKWAY STATION

*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.





9.3.2. The following table suggests that local bus services to Luton decreased between 2005 and 2006 but increased to other long distance destinations with an increase in National Express services to Stansted Airport and Easybus services to London. The seasonal position in 2006/07 suggests a significant increase in winter bus services impacting on the railway station from other destinations. Whereas, airport-to-airport coach services increased substantially as a result of services to Stansted and Birmingham Airports but there were significant reductions to Gatwick and Heathrow Airports. Arriva placed a small fleet of (wheelchair) accessible coaches on service 757 at the start of 2006. Virgin VT99 became fully wheelchair accessible in late 2006 and National Express are gradually introducing accessible vehicles on many of their services to LLA.

Number of Services per Week	Summer 2005	Winter 2005/06	Summer 2006	Winter 2006/07
Destination				
LOCAL Luton Railway Station	352	346	346	433
(for Railway Station) Others	458	452	453	557
National Central London Others	505 504	505 504	770 518	770 518
TOTAL	1,819	1,807	2,087	2,278
AIRPORT- AIRPORT LINK Birmingham East Midlands London Gatwick London Heathrow London Stansted Manchester	7 0 126 196 56 7	7 0 126 196 112 7	70 0 70 140 175 7	70 0 70 140 175 7
TOTAL*	392 ₩	448 ∞	462	462

BUS AND COACH SERVICES FROM LLA

*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 were 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 A calibrating check on winter 2004/05 gives a figure of 1,432 thus while direct comparisons with pervious years are now unsafe, it is reasonable to conclude annual trend increase in bus and coach services.





9.4 Additional Information

9.4.1. LLAOL is required to produce a Surface Access Strategy and has set up an Airport Transport Forum (established 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, with 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.

9.5 Car Parking

- 9.5.1. Whilst the Surface Access Strategy seeks to encourage passengers and staff to travel to LLA by sustainable means, there will always be some passengers and staff who choose to travel by car. Policies LLA1 and LLA2 of the Borough of Luton Local Plan set out the criteria for airport car parking, both on and off site.
- 9.5.2. Staff car parking capacity has again remained unchanged during 2006, however the Mid term passenger car park was reduced by approximately 600 spaces due to works commencing on this section of the East Luton Corridor scheme.

Passenger	Spaces	Area m²	
Short Term	1,556	39,373	
Mid Term	2,780*	65,000	
Long Term	3,400	72,150	
Passenger Total	7,736	176,523	
Staff Total	3,835	97,270	
Total	11,571	273,793	

*Mid Term Car Park had 3,379 spaces until May 2006 when work commenced on the link road from Airport Way as part of the East Luton Corridor scheme.

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

Operator*	Spaces**	Area m²
Airparks (Slip End)	3,510	17,600
Central Car Storage	216	5,600
Airport Carparkz (temporary consent only)	250	12,000
Total	3,976	35,200

* Alpha Car Storage is not included as this site was unauthorised in 2006, although it was operational. ** Numbers of spaces given relates to the number approved as part of planning conditions imposed at

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





9.6 Traffic Counts

Traffic Count - Winter (Average 12hrs)						
	2001/	2003/	2004/	2005	2006/	
	2002	2004	2005	/2006	2007	
Airport Way	0	15036	15368	16047	14699	
Lower						
Harpenden						
Rd.	7808	10268	9575	10664	11127	
London Rd	0	14406	14394	11834	16787	
Frank						
Lester Way	0	8394	8545	8700	8908	
Vauxhall						
Way South	0	22027	21537	20985	19534	
Vauxhall						
Way North	0	16870	16415	15988	15599	
Eaton						
Green Rd	0	13010	13058	12267	12674	

Traffic Count - Summer (Average 12hrs)						
Airport Way	6498	16115	16853	18173	17640	
Lower						
Harpenden						
Rd.	8424	9797	9993	10837	11123	
London Rd	12787	15314	15385	16338	13213	
Frank						
Lester Way	7192	7688	8104	9128	9860	
Vauxhall						
Way South	0	21597	21855	24609	19538	
Vauxhall						
Way North	0	17217	17623	20484	15515	
Eaton						
Green Rd	11029	13068	12909	14849	12320	

Traffic Count - Winter (Average 24hrs)					
	2001/	2003/	2004	2005/	2006/
	2002	2004	/2005	2006	2007
Airport Way	0	19330	20281	21498	21410
Lower					
Harpenden					
Rd.	9431	11016	12993	11312	12246
London Rd	0	17684	17596	15142	20862
Frank Lester					
Way	0	8741	9056	9405	9765
Vauxhall					
Way South	0	26966	26079	25813	23974
Vauxhall					
Way North	0	21183	20406	20298	20185
Eaton Green					
Rd	0	16398	16279	15405	15761

Traffic Count - Summer (Average 24hrs)						
Airport Way	9608	22767	24306	26532	26707	
Lower						
Harpenden						
Rd.	10500	10826	10913	10426	10511	
London Rd	16175	18517	18939	17406	17436	
Frank Lester						
Way	7922	8361	8871	10275	11351	
Vauxhall						
Way South	0	26499	27666	26135	25034	
Vauxhall						
Way North	0	21887	22470	19184	20354	
Eaton Green						
Rd	14069	16093	16205	14873	15812	

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







9.7 Passenger and Staff Car Parking







10. Planning

10.1. Local Planning Policy

- 10.1.1. The Planning System was recently reformed by the Planning and Compulsory Purchase Act 2004. In March 2006 the Borough Council adopted a new Borough of Luton Local Plan (March 2006), which replaced the Borough of Luton Local Plan (April 1997) under the old system. Together with the adopted Bedfordshire County Structure Plan 2011 (adopted March 1997) the new Local Plan forms the statutory Development Plan for the whole of Luton until a framework of Local Development Documents (LDD) is prepared under the new system. Furthermore, the LLA Development Brief (February 2000) sets out detailed proposals for further development at the Airport and is adopted by LBC as Supplementary Planning Guidance (in September 2001).
- 10.1.2. The Local Plan (March 2006) policies LLA1 and LLA2, deal with growth and development at LLA and necessary sustainable transport measures. LLA3 and LLA4 deal with development within Public Safety Zones and Airport Safeguarding for guidance to developers of land primarily around the airport boundary. LLA is identified as an 'Action Area'. Policy LLA1 supports expansion provided it is not in conflict with national or regional aviation policies, does not significantly increase the number of people affected by noise, and is in accordance with the most recent adopted Development Brief. The Local Plan is saved for 3 years from adoption and will eventually be replaced by LDD's under the new Planning Act. The Airport is expected to produce a new Airport Master Plan, which, after public consultation, may be adopted by the Borough Council or it may be used to inform LDD preparation.

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. The Plan proposed investment in the development of LLA Interchange (now Luton Airport Parkway Station opened in 1999) during the Plan period as part of the integrated transport infrastructure package for Luton and Dunstable.
- 10.2.2. The new planning system was enacted in summer 2004. Adopted Structure Plans and Local Plans only have a 3 year 'shelf life' until replaced with the new system of statutory Regional Spatial Strategies (RSS) and LDD's. The Borough Council has proposed that existing Policy 48 of the adopted Structure Plan to 2011 will be a 'saved' policy within an emerging new Regional Spatial Strategy. However, the Borough Council is reviewing this position with Bedfordshire County Council in response to the Secretary of State' proposed modifications (see para 10.2.6 below).
- 10.2.3. Bedfordshire and Luton reside within the East of England Region. The East of England Regional Assembly (EERA) is the Regional Planning Body which is preparing the East of England RSS (i.e. draft RSS14 called the 'East of England Plan'). This covers the period 2001 to 2021. The draft 'East of England Plan' was put for public consultation in autumn 2004 and a Public Examination was held in September 2005. As a consequence, the Government proposed modifications to RSS14 and is undertaking public consultation ending 9th March 2007 (see para 10.2.6 below).
- 10.2.4. Luton is also within the designated 'Luton Dunstable/Houghton Regis Growth Area' arising from the adopted 'Milton Keynes South Midlands Sub Regional Strategy' (MK-SM SRS). The MK-SM SRS is complementary to the emerging RSS East of England Plan and together they will form the long term planning framework. This includes planning for future Airport growth consistent with national policy objectives (Aviation White Paper) with local implementation at Luton being managed though LDDs informed by a Master Plan to deliver growth sustainably in relation to noise, environmental considerations and surface access.

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- 10.2.5. The principle of growth levels, for airports, is set out in the Government's Airports White Paper on The Future of Air Transport in the UK (See section 10.3 below). The White Paper on The Future of Air Transport in the UK invites airport operators such as LLAOL to produce a new or revised Airport Master Plan with details up to 2015 of any necessary environmental controls, mitigation plans, 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.
- 10.2.6. The Secretary of State published proposed modifications to the draft East of England Plan (RSS14) on 19th December 2006, which are subject to a 6 week consultation (extended 2 weeks to allow for Christmas holidays) ending 9th March 2007. The modifications include removing draft policy BL1 restricting growth at LLA up to the maximum capacity of the existing 2160m runway by 2021 because the principle of growth is now set by national aviation policy to 2030. Consequently, the Secretary of State proposes a redraft Policy E8 and new transport policy T12. To this effect, focussing on economic objectives, integrating surface access, modal shift and environmental safeguards to be addressed within LDDs (as informed by development proposals within a Master Plan).
- 10.2.7. In December 2005, LLAOL published its draft Master Plan for public consultation, setting out its long term vision for LLA. The final Master Plan, once published, will help inform joint LDD preparation in relation to the proposed Luton/Dunstable Houghton Regis growth area, the south east of Luton and employment land issues.

10.3. National Aviation Policy

- 10.3.1. 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 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.
- 10.3.2. In July 2002 the Department for 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.
- 10.3.3. 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, encouraging development at existing airports whilst making best use of existing capacity first. In this White Paper, as an integral part of this policy, the Government supported the growth of LLA up to the maximum use of a single full-length runway (circa 30mppa or 240,000 ATMs) based broadly on the current alignment, on condition that the overall environmental impacts of such development will be carefully controlled and adequate mitigation provided.
- 10.3.4. 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.

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- 10.3.5. This draft Master Plan, comprising of a Core Strategy, Sustainability Appraisal and Airport Surface Access Strategy, outlined proposals for a full-length replacement runway with associated facilities, taking into account the principles of sustainability and environmental effects as well as the role of regeneration for the area. LLAOL undertook extensive public consultation which concluded on 27th January 2006. Since then, LLAOL has been engaged in detailed commercial and technical dialogue with the freeholder (LLAL) with respect to the long term development plans of the airport. These discussions are ongoing and may take some time to conclude. With this in mind, LLAOL will publish an Interim Master Plan in the near future, focussing on development with the existing boundary in the period to 2015. A final Master Plan, outlining plans from 2015-2030 will follow thereafter.
- 10.3.6. 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.

10.4. Luton and Dunstable Local Transport Plan 2001-2006

10.4.1. The LTP was submitted to central Government in July 2000. It contained 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 and construction began in late 2006, funded through the Communities Infrastructure Fund and the second phase of the Growth Areas Fund. The Translink scheme received provisional funding though the LTP capital programme in December 2003 and a Public Inquiry reported favourably upon the scheme in late 2006. A business case will be submitted during 2007 and construction is expected to begin in 2008.

10.5. Luton-Dunstable-Houghton Regis Full Local Transport Plan 2006-2011

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

10.6. The Airport Surface Access Strategy Consultation Document

10.6.1. The Airport produced this document in late 2005 as part of its Master Plan. It outlines the Airport's vision for surface access, setting out long term aspirations for surface access improvements to support forecast expansion up to 23.5 mppa in 2015 and to 30 mppa in 2020. 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. LLA functions as an international gateway and regional interchange centre, bringing wider benefits to the local community and the region. A partnership approach in developing and delivering surface access improvement will be essential if these opportunities are to be fully realised.





10.7. Developments at LLA

- 10.7.1. Policy 48 of the Structure Plan 2011 required the long-term growth strategy for the Airport to be subject to a Development Brief. The Development Brief was produced by LLAOL for consultation in February 2000 and subsequently adopted as Supplementary Planning Guidance by LBC 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, the new planning system and the new provisions of the Aviation White Paper will eventually supersede current policy.
- 10.7.2. The notable physical developments undertaken by LLAOL on the airport site in 2006 are as follows:-
 - Runway resurfacing project
- 10.7.3. Other developments on or adjacent to the site but carried out by third parties included: -
 - The commencement of a comprehensive refurbishment programme of an existing hangar for use as offices and hangar space for easyJet
 - The approval of a replacement fixed based operations facility for Signature Aviation (not yet commenced)
 - The refurbishment of part of the terminal building to provide check-in facilities for Silverjet (opened January 2007)




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.	



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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



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Appendix A – Night Noise Policy

NIGHT NOISE POLICY

Department:	Airfield Environment - Airfield Operations
Authority:	Airport Operations Director
Distribution:	Aircraft Operators UK Aeronautical Information Publication (UK AIP) Luton Based Handling Agents Airport Operations London Luton Airport Consultative Committee London Luton Airport Noise & Track Sub-Committee London Luton Airport Night Noise Working Group Upon Request
Effective Date:	April 1, 2002 to March 31, 2007

Review Status: Amended September 4, 2006

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



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 km² If results show that the 1999 predicted values have been exceeded, an action plan will be implemented to avoid the possibility of exceeding the 1984 values.

Current Monitoring and Control Activities

- 3.0 LLAO will continue to comply with the planning conditions which, apply to it and, in particular, that concerned with Night Noise.
- 4.0 LLAO will continue to monitor 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;

>87 – 91 dB(A)	- 300% surcharge
>91 – 95 dB(A)	– 500% surcharge
>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 has developed a programme of noise monitoring at night to understand further the impact of its night operations on the local community. This programme and the location of the sites monitored has been developed in consultation with the affected local authorities and community representatives. The results of the monitoring are reported to the LLACC.
- 11.0 LLAO will comply with the Aeroplane Noise Regulations 1999, which state that:

With effect from 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.





APPENDIX B - 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 at the airport. If the data were not aggregated then no meaningful conclusions could be drawn from it, whereas aggregating it allows us to make comparisons at authority, regional and national levels. To this high level, we would not be able to publish given the confidentiality guarantees applied to the survey.

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

Data Collection

The method of collecting data for the AMR is using questionnaires which are sent to each business in a defined area in and around LLA (see 9.7). 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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ਜ਼ੋਕਰ ਤੁਸੀਂ ਸੁਖਾਓ ਦਿਤੇ ਹੋਏ ਪ੍ਰੋਜੈਕਟ ਬਾਰੇ ਆਪਣੀ ਰਾਏ ਦੋਣੀ ਜਾਂ ਹੋਰ ਜਾਣਕਾਰੀ ਪ੍ਰਾਪਤ ਕਰਨੀ ਚਾਹੁੰਦੇ ਹੋ ਤਾਂ ਮਿਹਰਬਾਨੀ ਕਰਕੇ ਪੌਲ ਸਗੂ ਨੂੰ 01582 547 087 ਤੇ ਸੰਪਰਕ ਕਰੋ। ਅਸੀਂ ਤੁਹਾਡੇ ਵਿਚਾਰਾਂ ਦੀ ਕਦਰ ਕਰਦੇ ਹਾਂ।

প্রশ্তাবিত প্রোজেক্ট সম্পর্কে যদি আপনার মতামত জানাতে চান অথবা কেবলমাত্র বিশ্তারিত থবরাথবর জানতে চান. তাহলে মেহেরবানি করে আবদুল সালামের সাথে 01582 547 087 - এই টেলিফোন নম্বরে যোগাযোগ কঙ্গন। আমরা আপনার মতামতের মল্য দেই।

اً کرآپ ان نور و مصوبوں (بروذ عیکش) کے بارے میں اپنے خیالات کا اظہار کرما جائے ہیں یا گفش مزید مصومات حاصل کرتا جائے میں تو کہا، ہم یانی تحد الاس سے 087 547 1582 کر رابطہ قائم کیسچنے ہم آپ کی آراء کی قدر کرتے ہیں۔

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